

MONA OFFSHORE WIND PROJECT

Technical Engagement Plan Appendices Part 3 (N to S)

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February 2024

F01



Image of an offshore wind farm

MONA OFFSHORE WIND PROJECT

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| Prepared by: | | Prepared for: | | | |
| RPS | | Mona Offshore Wind Ltd. | | | |

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Appendix N: Archaeology and Heritage Engagement Forum - onshore

N.1 AHEF onshore overview

Table N.1: Overview of MNEF consultation materials.

| Date | Meeting | Information provided |
|------------------|--------------------------|-------------------------|
| 30 November 2022 | AHEF – onshore meeting 1 | Meeting minutes (N.2.1) |
| 09 May 2023 | AHEF – onshore meeting 2 | Meeting minutes (N.3.1) |
| 12 July 2023 | AHEF – onshore meeting 3 | Meeting minutes (N.4.1) |
| 14 November 2023 | AHEF – onshore meeting 4 | Meeting minutes (N.5.1) |

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N.2 AHEF - onshore meeting 1

N.2.1 Meeting minutes

Appendix A AHEF – Offshore Meeting Minutes

| | |
|-------------------|---|
| Reference: | EOR0801 – AHEF Offshore M1 |
| Meeting Name: | Mona Offshore Wind Project – Archaeology and Heritage Engagement Forum (AHEF) (Onshore) – Meeting 1 |
| Meeting date: | 30 November 2022 |
| Meeting location: | MS Teams |

Attendees

| Name | Initials | Company | Role |
|------------|----------|----------------------------------|----------------|
| [REDACTED] | CR | RPS | Consultant |
| [REDACTED] | MR | RPS | Consultant |
| [REDACTED] | EW | RPS | Consultant |
| [REDACTED] | PRW | bp | Applicant |
| [REDACTED] | MW | Clywd Powys Archaeological Trust | Statutory body |
| [REDACTED] | NM | Cadw – Historic Environment | Statutory body |

Apologies

| Name | Initials | Company | Role |
|------------|----------|--|----------------|
| [REDACTED] | JW | RCAHMW (Royal Commission on the Ancient and Historical Monuments of Wales) | Statutory body |

| Item | Detail | Actions | Date |
|------|--|---------|------|
| 1 | Agenda <ul style="list-style-type: none"> • Introductions • AHEF (Onshore) <ul style="list-style-type: none"> – Remit – Indicative meeting programme – Ways of working • Onshore Heritage <ul style="list-style-type: none"> – Desk-top sources – Ongoing surveys – PEIR preview • Questions • Next Steps | N/A | N/A |
| 2 | <u>Introductions</u> CR explained that the purpose of the meeting was to introduce the AHEF (Onshore); a similar approach was being followed for the Marine Archaeology and that some of the attendees would attend | None | N/A |

| Item | Detail | Actions | Date |
|------|---|---|-----------------|
| | both forums. The meeting would not include an introduction to the Mona Offshore Wind Project as everyone was already familiar with the location and high-level details of the Project. CR flagged that the second Site Selection Workshop was going ahead on 16 December 2022 and that most people on the call were attending. | | |
| 3 | <p><u>AHEF (Onshore) (presented by CR)</u></p> <p>CR explained that the remit of the AHEF (Onshore) is similar to the Evidence Plan process for ecological receptors. It provides a mechanism for consultation with stakeholders to discuss and agree issues during the application process to reduce the risk of delays during Examination. In particular, the AHEF (Onshore) will ensure that sufficient and proportionate information is provided in the assessment of the Mona Offshore Wind Project. The AHEF (Onshore) will also outline how the baseline data and methods satisfy the requirements of relevant legislation; it allows the identification and resolution of issues early in the EIA process; and it provides a direct link between the EIA and Statement of Common Ground.</p> <p>A key part of the AHEF (Onshore) are the regular meetings with the stakeholders. CR shared an indicative programme of when the meetings are likely to be required and what would be discussed in the meetings. It was suggested that the following meeting would be held in March 2023 to give an indication of the information that will be contained in the PEIR and to provide an update on the ongoing surveys. It was agreed to keep this date under review as it would be useful to have meeting before the PEIR was submitted.</p> <p>CR explained the AHEF Ways of Working and the timeframes for circulating information. This is documented in AHEF (Onshore) Roadmap.</p> | None | N/A |
| 3 | <p><u>Onshore Heritage (presented by MR)</u></p> <p>Study area</p> <p>MR confirmed the historic environment study area for the Mona Offshore Wind Project will comprise:</p> <ul style="list-style-type: none"> • Areas landward of Mean Low Water Springs i.e. the intertidal area will be included within the onshore historic environment chapter • The area of land temporarily or permanently occupied during construction, operation and maintenance and decommissioning of the Mona Offshore Wind Farm (i.e. the Proposed Onshore Development Area) • Designated historic assets within 1km (5km for the onshore substation) • Buried archaeology within 250m. <p>NM explained that the main stakeholder comments on the intertidal area will come from RCAHMMW.</p> <p>MR explained that the only visible structure would be the Onshore Substation and confirmed that all designated assets within 5km of the Onshore Substation will be mapped. The Zone of Theoretical Visibility will be used to screen which assets are included in the assessment. NM stated that an initial assessment should be undertaken to identify heritage assets and that a Level 1 setting assessment will be needed. MR confirmed that this will be included in the desk-based assessment.</p> <p>With regards to buried archaeology, MR explained that the Proposed Onshore Development Area currently comprises a wide area and therefore, the search area for buried archaeology covers</p> | CR – to forward a copy of the meeting minutes to [REDACTED] | 16 January 2023 |

| Item | Detail | Actions | Date |
|------|--|---------|------|
| | a substantial area. The Onshore Cable Corridor will be refined post PEIR. | | |
| 4 | <p>Desk top study</p> <p>MR listed the sources of desk-top data that will be used to characterise the baseline. Data has been acquired from the HER and will cover the historic environment study area. MR explained that due to some changes in the Mona Proposed Development Area, the HER could not be shared at the time of the meeting as we are making sure that data coverage is complete for the red line boundary.</p> <p>The data sources will include tithe maps and OS 1st edition maps and aerial photographs from Welsh Government. MR explained that when the Onshore Cable Corridor had been refined post PEIR, the AHEF will be asked if any other desk-top sources should be considered e.g. the Royal Commission photo collection.</p> <p>MW confirmed that they were satisfied with the list of desk-top sources for the PEIR.</p> | None | N/A |
| 5 | <p><u>Surveys (presented by MR)</u></p> <p>Heritage Intertidal Survey</p> <p>MR provided an overview of the heritage intertidal survey that has been undertaken by Oxford Archaeology. The extent of the survey included the search area for the Onshore Cable and the area identified for construction access.</p> <p>The purpose of the survey was to identify any surface peat outcrops within the intertidal zone to inform the routing and design of the export cable. The survey comprised a review of desk-based information and a photogrammetric survey using a drone.</p> <p>No surface peat outcrops were identified during the survey. The survey report will be included in the PEIR.</p> <p>Following the refinement of the Onshore Cable Corridor (post PEIR), auger boring will be undertaken along the proposed route with sub-surface sampling to confirm if any further investigation is required. This will be a staged-process and will be agreed with CPAT and RCAHWW.</p> <p>CR explained that the Project will be undertaking some engineering investigations in the intertidal area to confirm ground conditions. CR asked if a method statement of archaeological watching brief would be required if the investigation included test pits. PRW stated that the programme and scope of the investigations are not yet confirmed and further information was required from the engineers before this could be discussed in detail.</p> | None | N/A |
| 6 | <p>Geophysical Survey</p> <p>A geophysical survey is currently underway (commenced in October 2022) that will cover the Mona Proposed Onshore Development Area. The survey uses the Magnetometer method and is in line with the WSI that was sent to MW. The area to be surveyed is substantial (over 800ha) due to the wide search area (over 300m wide in places) and inclusion of options. The current programme indicates that survey will be completed by the end of March 2023 – the timeframe means that it won't be possible to include all the survey data within the PEIR, however priority areas (e.g. Onshore Substation areas) will be surveyed first and the aim is to include as much data in the PEIR as possible.</p> | None | N/A |

| Item | Detail | Actions | Date |
|------|---|--|-----------------------|
| | <p>Land access has been secured via Dalcour Maclaren and s.172 notices have been served where necessary.</p> <p>A programme of trial trenching will be undertaken when the Onshore Cable Corridor has been refined and the results will be reported in the Environmental Statement. The location of trial trenching will be informed by the results of the geophysical survey: assumptions of where some of these areas will be located will be included in the PEIR. However due to the timeframe of the survey, the list of proposed trial trenching areas will not be completed until after the PEIR and will be communicated through the AHEF (Onshore).</p> | | |
| 7 | <p><u>Buried Archaeology, Historic Assets and Settings (presented by MR)</u></p> <p>MR explained that a summary of the baseline conditions will be identified in the Historic Environment chapter and supported by the DBA, intertidal survey and the interim geophysical survey report.</p> <p>The assessment of impacts will be in line with guidance. With regards to settings, the assessment will focus on the Onshore Substation. MR explained that a detailed assessment of the impacts on settings is not proposed for the construction phase as the impacts will be temporary and are unlikely to be major.</p> <p>NM pointed out that there are Registered Parks and Gardens along the route and suggested to talking to Cadw on how to address potential impacts. If the trenching was used to install the cables through the woodland then there would be a major setting issue.</p> <p>PRW stated that the Mona Offshore Wind Project was internally seeking to commit at PEIR to tunnelling as this is the approach favoured by the project. However, there is a history of mining in area that will need to be considered. Team will come back with confirmation, however at this stage, not knocking woodland down is the priority.</p> <p>MR noted that assessment of potential impacts on historic landscapes will focus on the Onshore Substations. The MDS will be assessed based on the maximum length and height of the buildings.</p> <p>MR explained that the PEIR will include discussion on the mitigation measures and offsetting: the measures are likely to be 'standard' measures but the Project may also want to discuss other measures with the AHEF (Onshore) e.g. further archaeological work.</p> <p>The aim was to include an outline WSI within the DCO application – MW preferred this approach.</p> <p>NM noted that the boundary of the scheduled First World War trenches at Bodelwyddan Castle may be extended but is unlikely to go beyond the boundary of the Registered Park and Garden. MR said it would be useful to understand the timeframe of when this is likely to occur and to see maps of the boundary changes.</p> <p>MW was pleased that the consenting programme for the Project included trial trenching within the application. MW noted that Awel y Mor had committed to undertake trial trenching for the application but that bad weather prevented it from being completed.</p> <p>MW noted that the Mona Offshore Wind Project was located outside a registered landscape and that an ASIDOHL2 assessment should be avoided.</p> | <p>NM to chase colleague for timeframe</p> | <p>January 2023</p> |
| 8 | <p><u>Next Steps (presented by CR)</u></p> | <p>CR to issue Roadmap,</p> | <p>9 January 2023</p> |

| Item | Detail | Actions | Date |
|------|---|-----------------------------------|------|
| | CR explained that the next steps was to issue the AHEF (Onshore) Roadmap, the meeting minutes and the agreement log. Aim for agreement of the Roadmap, first meeting minutes and agreement log by 23 January 2023. | meeting minutes and agreement log | |

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N.3 AHEF - onshore meeting 2

N.3.1 Meeting minutes

Appendix A AHEF Onshore 2 Meeting Minutes

| | |
|-------------------|---|
| Reference: | Bp/EnBW Mona Offshore Wind Project – AHEF Onshore 3 |
| Meeting Name: | Mona AHEF Onshore 2 |
| Meeting date: | 9 May 2023 |
| Meeting location: | Virtual (Microsoft Teams) |

Attendees

| Name | Initials | Company | Role |
|------------|----------|---------|-------------|
| ██████████ | CR | RPS | Consultant |
| ██████████ | MR | RPS | Consultant |
| ██████████ | CC | RPS | Consultant |
| ██████████ | MW | CPAT | Stakeholder |
| ██████████ | PRW | bp | Applicant |

| Item | Detail | Actions | Date |
|------|--|--|------|
| 1 | <p>Introduction to the Meeting:</p> <p>CR introduced the meeting and gave an update on the stage of the application process.</p> | N/A | |
| 2 | <p>Trial trenching strategy</p> <p>MR confirmed that the Project was hoping to undertake a trial trenching campaign and include results within the DCO application. MW welcomed this news and stated that CPAT would be expecting to some information in the application but acknowledged that poor weather and access restrictions may limit progress.</p> <p>MW described the proposed approach to trial trenching and the overall strategy that the Mona Offshore Wind Project was looking to follow. MW provided a summary of the results from the geophysical survey and indicated the type of anomalies that the trial trenching survey would be looking to target and the length of the trench.</p> | N/A | |
| 3 | <p>Heritage Intertidal Survey</p> <p>RPS described the scope of the heritage intertidal survey that had been completed in October 2022. The WSI had been agreed with CPAT and RCAHMW. No peat outcroppings were identified during the survey. Follow up work was proposed when the cable corridor had been more defined; the work may include auger sampling.</p> <p>MW had provided comments on the intertidal survey before the meeting. He mentioned that the survey was only a survey search and there was an unknown impact on the paleoenvironmental deposits. He indicated that delaying further work until post consent would not fulfil the requirement of an environmental assessment. MW suggested using advance information by using geoarchaeological deposit modelling.</p> <p>MR welcomed the suggestion and would agree the scope of the further work with MW.</p> | N/A | |
| 6 | <p>RPS provided the next steps, which include:</p> <ul style="list-style-type: none"> • Agree the trial trenching strategy • Prepare a WSI for the trial trenching | RPS to set up another meeting with CPAT for updates. | |

N.4 AHEF - onshore meeting 3

N.4.1 Meeting minutes

Appendix A AHEF Onshore 3 Meeting Minutes

| | |
|-------------------|---|
| Reference: | Bp/EnBW Mona Offshore Wind Project – AHEF Onshore 3 |
| Meeting Name: | Mona AHEF Onshore 3 |
| Meeting date: | 12 July 2023 |
| Meeting location: | Virtual (Microsoft Teams) |

Attendees

| Name | Initials | Company | Role |
|------------|----------|---------|-------------|
| ██████████ | JT | RPS | Consultant |
| ██████████ | MR | RPS | Consultant |
| ██████████ | CC | RPS | Consultant |
| ██████████ | MW | CPAT | Stakeholder |
| ██████████ | PRW | bp | Applicant |

| Item | Detail | Actions | Date |
|------|---|---------|------|
| 1 | <p>Introduction to the Meeting:</p> <p>RPS provided a summary of the rationale behind the Trial Trenching location/positioning and an introduction into the proposed strategy.</p> <p>The rationale consisted of two key elements:</p> <ol style="list-style-type: none"> 1. The positioning and locations of trenches have been based on the original request (from CPAT) to target geophysical anomalies that have been identified as potentially archaeological anomalies or having historical interest. 2. Trenches have been targeted in proximity to other potential features of interest, following advice from CPAT. <p>PRW highlighted that the Red Line Boundary was very much indicative and is subject to change. There may be amendments following S42 consultation feedback, which would be announced in the next couple of months. Would then seek engagement from landowners.</p> | N/A | |
| 2 | <p>WSI Report & Strategy</p> <p>MW provided an initial comment following his initial review of the document. It was highlighted that the overall strategy seemed to be fine and stated that there was very dense patterning that provided good cover of the sites.</p> <p>RPS provided details on the plans for progression:</p> <ol style="list-style-type: none"> 1. Develop a priority list of trenching (MR mentioned that it may not be possible to do every trench due to access and other constraints). 2. Agree the WSI plans. 3. Find a contractor who is able to provide the necessary resources for implementation of the trenching. 4. Agree and arrange site access with landowners to enable the works. <p>Once these steps are completed, then monitoring of the trial trenching would be able to be discussed with CPAT.</p> | N/A | |
| 3 | <p>Walkthrough of the WSI Report</p> <p>RPS and CPAT went through each section of the trial trenching plans to allow for comments and discussion.</p> <p>Figure 2A (Page 20) – CPAT stated that the plan looks reasonable, with a good scatter of trenches to cover areas of interest.</p> <p>Figure 2B (Page 21) – It was highlighted that RPS has gone through the full geophysical survey results, and carried out a comparison with historical mapping to design these the trenching locations. CPAT (MW) was happy with this approach.</p> <p>Figure 2C (Page 22) – CPAT provided feedback on this plan, stating that the natural features are being avoided, and there</p> | | |

| Item | Detail | Actions | Date |
|------|--|---|------|
| | <p>is good cover with a dense scatter of trenches at the south of this section.</p> <p>RPS highlighted that the trenches within the middle part of the route within this section have been selected to cover the course of a Roman road, so provided an opportunity to see if there is any evidence within this location. MW agreed.</p> <p>Following a query from CPAT, RPS clarified that compounds are represented by the purple line, which is why these areas are covered by a dense selection of trenches. (PRW highlighted that the middle compound is not finalised).</p> <p>Figure 2D (Page 23) – RPS (MR) detailed that the trenches in the centre of this section have been selected as they were unable to gain access to this land during the Geophysical Survey. Therefore, the selection accounts for this.</p> <p>Figure 2E (Page 24) – CPAT provided positive feedback. There is a good spread across this section. MW also mentioned that we have knocked out the field systems which is good, and covered all the archaeological features and the undetermined features as well.</p> <p>Figure 2F (Page 25) – CPAT provided a suggestion to add another trench along the route in area 164. RPS agreed and said they would look into this area to understand whether it would be required to provide an additional trench.</p> <p>Figure 2G (Page 26) – There is a purple strip on the map, which relates to evidence of mining (lead mining). CPAT suggested that there may be more trenches required in this area – RPS said they will look into this in more detail.</p> <p>Figure 2H (Page 27) – This section relates to the substation site – CPAT happy with this plan, as dench number of trenches provides good cover.</p> <p>RPS (MR) highlighted that they will need to take a closer look at landscaping around the substation to understand the impacts associated with that, but for now, some trenches have been included to close this area off around the substation. Some trenches might be knocked off if found there are going to be no impacts.</p> <p>(For example, if landscaping is to do more with earth movements, we would require this assessment, but if it is just meadow planting, it should be fine.</p> | <p>RPS to review and add another trench if required.</p> <p>RPS to review and add trenches to the area with lead mining, if required.</p> | |
| 4 | <p>CPAT stated that they would like RPS/contractors to send photos of the trenches with details/summary of any features found. Then these can be remotely signed off after reviewing this information. Then it can be backfilled. RPS confirmed that this would be fine, as it is a usual approach, and helps with site access etc.</p> | <p>RPS to provide trench photos for sign off during the trenching.</p> | |
| 5 | <p>Text of the WSI</p> | <p>RPS to coordinate with</p> | |

| Item | Detail | Actions | Date |
|------|--|--|------|
| | <p>CPAT provided some suggestions that should be included in the WSI Report, including the following:</p> <ul style="list-style-type: none"> • An Archive Statement in the 'trial trenching report' section • Need to say that a data management plan and a selection strategy would be completed by the contractor. <p>CC (RPS) to coordinate with the contractor regarding the above, and get the statement and plans, which he can then input into the report.</p> <p>MR said that if they have any further comments, to pop an email to himself (RPS).</p> | <p>contractor to input details into WSI Report.</p> <p>CPAT to email MR with further comments on the WSI</p> | |
| 6 | <p>Final Comments</p> <p>RPS provided the next steps#, which include:</p> <ul style="list-style-type: none"> • Find a contractor • Develop a priority list for trenching • Would be in touch with CPAT closer to initiation to discuss monitoring and provide any updates. <p>RPS highlighted that we are still in the consultation phase within the PEIR stage and that any comments will be accounted for. Where trenches may change, these updates would be highlighted with CPAT. Another meeting will be set up.</p> | <p>RPS to set up another meeting with CPAT for updates.</p> | |

N.5 AHEF - onshore meeting 4

N.5.1 Meeting minutes

Appendix A AHEF – Onshore Meeting Minutes

| | |
|-------------------|--|
| Reference: | EOR0801 – AHEF Offshore M1 |
| Meeting Name: | Mona Offshore Wind Project – Archaeology and Heritage Engagement Forum (AHEF) (Onshore) – Meeting 04 |
| Meeting date: | 14 November 2023 |
| Meeting location: | MS Teams |

Attendees

| Name | Initials | Company | Role |
|--------------------|----------|----------------------------------|----------------|
| ██████████ | CR | RPS | Consultant |
| ██████████ | MR | RPS | Consultant |
| ██████████ | CC | RPS | Consultant |
| ██████████████████ | PRW | bp | Applicant |
| ██████████ | MW | Clywd Powys Archaeological Trust | Statutory body |

| Item | Detail | Actions | Date |
|------|---|---|------------|
| | <p>Agenda</p> <ul style="list-style-type: none"> Summary of trial trenching campaign achieved to date Difficulties encountered Proposed approach for completing and reporting of the remaining survey campaign | N/A | N/A |
| 1 | <p><u>Summary of trial trenching campaign achieved to date</u></p> <p>CR explained that the trial trenching campaign began in October and good progress was made where access had been granted. A process was established to keep MW informed where finds were encountered and to confirm where trenches could be re-instated. MW explained that there had been a few difficulties in the automated system but overall the process was working well.</p> <p>In the mid section of the Onshore Cable Corridor, a concentration of features were identified. MW suggested that this would require a strip, map and excavate exercise. However, overall there was no distinct pattern between the anomalies identified in the geophysical survey and the presence of finds detected in the trial trenching survey.</p> <p>CR explained that they were hoping to share a map of the extent of the surveys completed on the call, however they were experiencing a few technical difficulties.</p> | <p>None</p> <p>CR to send MR a plan of the trial trenching survey completed</p> | 27/11/2023 |
| 2 | <p><u>Difficulties</u></p> <p>CR explained that the land team had experienced difficulties in securing access for the trial trenching surveys at the Onshore Substation and on sections of the Onshore Cable Corridor. This had led to delays in the trial trenching survey programme. In addition to this, the weather has deteriorated with a number of storms and periods of prolonged rain. The ground has become saturated and</p> | None | N/A |

| Item | Detail | Actions | Date |
|------|--|---------|------------------|
| | more prone to damage from the survey equipment. As a result, landowners are more reluctant to allow access for the surveys. The Project is keen to maintain a good working relationship with the landowners and therefore, has suggested that the survey campaign is temporarily demobilised until early 2024 when there is a greater chance of better weather and of gaining access. This is in line with the advice from RPS and Oxford Archaeology. | | |
| 3 | <p><u>Proposed approach for completing and reporting of the remaining survey campaign</u></p> <p>CR explained that the trial trenching survey campaign would restart in February/March 2024 and complete the surveys (again this would be subject to securing access). Negotiations with landowners via Dalcour Maclaren would still continue in the interim. There had been some reasonably positive meetings which suggested that more access may become available for the re-start of the surveys.</p> <p>MR explained that an interim trial trenching report would be included in the DCO application; the Outline WSI would be based on the information from the trial trenching undertaken to date, the geophysical survey and the DBA. The results from the Feb/March 2024 survey campaign would not be included in the application but could be submitted into the Examination if the information was requested. Otherwise, the survey results would be used to inform any further work requirements (e.g. strip, map and excavate) post consent.</p> <p>MW also explained that the Outline WSI may also require updating post consent following the completion of the trial trenching survey.</p> | None | N/A |
| 8 | <p><u>Actions</u></p> <p>CR to send MW a plan of the trial trenching survey completed to date</p> | | 27 November 2023 |

Appendix O: Geology, hydrogeology and ground conditions

O.1 Geology, hydrogeology and ground conditions overview

Table O.1: Overview of AHEF consultation materials.

| Date | Meeting | Information provided |
|-------------------|--|--|
| 14 September 2023 | Email to Conwy County Borough Council regarding data | Email to Conwy County Borough Council regarding data (O.2.1) |
| 15 September 2023 | Conwy County Borough Council response to email regarding data | Conwy County Borough Council response to email regarding data (O.3.1) |
| 21 September 2023 | Conwy County Borough Council second response to email regarding data | Conwy County Borough Council second response to email regarding data (O.4.1) |

O.2 Email to Conwy County Borough Council regarding data

O.2.1 Email to Conwy County Borough Council regarding data

From: [REDACTED] <[REDACTED]>

Sent: 14 September 2023 17:21

To: Regulatory Services [REDACTED] >

Cc: [REDACTED] >; [REDACTED]
[REDACTED]

Subject: 230914 E JER9067 AG: MONA OFFSHORE WIND PROJECT - Llandulas Beach Landfill Site

To whom it May Concern

Pre-Application Consultation: DC/ENQ/32042
[REDACTED]

We (RPS) are providing environmental support for the Bp/EnBW Mona Offshore Wind Project, in relation to the onshore transmission assets. I am involved with geological and hydrogeological aspects of those works. As part of those works we identified the Llandulas Beach Landfill as a potential constraint for the construction of onshore assets.

We have obtained some information from NRW regarding the landfill, primarily in relation to permitting. We are still seeking any engineering design / construction details that may be available for the landfill site and the associated leachate management / control and monitoring infrastructure.

Following a telephone conversation at the end of last week and in the absence of [REDACTED], it was suggested I should send my query to the regulatory services email above.

If you could find the appropriate EHO point of contact for this query it would be greatly appreciated.

May also take this opportunity to highlight that we have also submitted the attached data request, principally in relation to private near the Mona onshore cable route corridor and substation, within the Development Area. We are still awaiting a reponse to that data request.

Many thanks for your help with this matter

Best regards

[REDACTED]

D [REDACTED]
Principal Hydrogeologist
RPS | Consulting UK & Ireland

[REDACTED]

[REDACTED]

[REDACTED]

rps
A TETRA TECH COMPANY

[REDACTED]

MONA OFFSHORE WIND PROJECT

O.3 Conwy County Borough Council response to email regarding data

O.3.1 Conwy County Borough Council response to email regarding data

From: [REDACTED] <[REDACTED]>

Sent: Friday, September 15, 2023 11:13 AM

To: [REDACTED]

Cc: [REDACTED]

Subject: FW: 230914 E JER9067 AG: MONA OFFSHORE WIND PROJECT - Llandulas Beach Landfill Site

CAUTION: This email originated from outside of RPS.

Good morning ,

With reference to your email to [REDACTED] below, I did have a FOI from your colleague [REDACTED] and aware she was on leave and was intending to discuss further with her before responding to the FOI, but I will respond to you direct and confirm with the FOI team also.

As discussed, I was contacted by [REDACTED] of Dalcour Maclaren last August regarding the historic Llanddulas Landfill and provided the information we have on file, so I have attached the email correspondence for your reference.

There was limited information regarding the engineering design unfortunately, but hopefully the attached will be of use.

With regards to the location of private water supplies, I've had a look at our GIS mapping and noted one historical premise close to the cable router corridor located at SH 92684 75098 (Ffynhonnau Farm) but no information on source type or location.

If you could send through a BNG GIS Map professional 2021 tab file with a 1Km buffer of the cable route, I can then provide further information of know private water location details.

I have discussed with our GIS coordinator and he advised if you don't have the information in the above format, just send it in the format you have and he will see if he can patch it into our system.

During the interim, please come to me direct if you have any further queries to speed the process up.

Kind regards

[REDACTED]

[REDACTED]
Pen Swyddog Amgylchedd/ Principal Environment Officer
Gwasanaethau Rheoleiddio a Thai / Regulatory and Housing Services
Cyngor Bwrdeistref Sirol CONWY County Borough Council
E-bost / E-mail : [REDACTED]
[REDACTED]

MONA OFFSHORE WIND PROJECT

O.4 Conwy County Borough Council second response to email regarding data

O.4.1 Conwy County Borough Council second response to email regarding data

From: [REDACTED]
Sent: Thursday, September 21, 2023 2:34 PM
To: [REDACTED]
Subject: EIR 00001457 Response

CAUTION: This email originated from outside of RPS.

Dear [REDACTED]

Thank you for your request for environmental information received 21/08/2023 concerning private water supplies and contaminated land re Mona Offshore Wind Project proposed Onshore Cable Corridor. Having consulted our mapping, there are no known Private Water Supplies within the area.

The contaminated land register is attached.

If I can be of any further assistance, please do not hesitate to contact me.

If you have any queries regarding this response, please do not hesitate to contact me at the following address:

[REDACTED] or email [REDACTED]. Alternatively, if you are unhappy with the way the council has handled your request and wish to ask for internal review, please contact the [REDACTED] at the same address. If you are subsequently not content with the outcome of the review, you have the right to apply to the [REDACTED] whose address is Wycliffe [REDACTED]

The contents of this communication and the enclosed documents are subject to copyright protection. It has been sent to you for your information and you may use it for any private study and non-commercial research. The information may also be used for the purposes of news reporting. Re-use for commercial publication requires the permission of this Council.

Please do not hesitate to contact me for further advice or guidance relating to the above.

[REDACTED]
Swyddog Mynediad i Wybodaeth / Access to Information Officer

Cyngor Sir Ddinbych / Denbighshire County Council

Ffon / Tel: [REDACTED]

E-bost [REDACTED] E-mail: [REDACTED]

Gwefan [REDACTED]

Website [REDACTED]

Appendix P: Hydrology and flood risk

P.1 Hydrology and flood risk overview

Table P.1: Overview of Hydrology and flood risk consultation.

| Date | Meeting | Information provided |
|--------------|---------------------------------------|-------------------------|
| 07 June 2023 | Hydrology and flood risk meeting 1 | Meeting minutes (P.2.1) |

P.2 Hydrology and flood risk meeting 1

P.2.1 Meeting minutes

Appendix A Hydrology and Flood Risk EWG01 Meeting Minutes

| | |
|-------------------|---|
| Reference: | RPS_EOR0801_Mona_Hydrology and Flood Risk_EWG01_MoM_Rev01 |
| Meeting Name: | Hydrology and Flood Risk Expert Working Group (EWG) – Meeting 1 |
| Meeting date: | 07 June 2023 |
| Meeting location: | Virtual (Microsoft Teams) |

Attendees

| Name | Initials | Company | Role |
|--------------|----------|-------------------------------------|------------|
| Introduction | | | |
| [REDACTED] | CR | RPS | Consultant |
| [REDACTED] | JM | RPS | Consultant |
| [REDACTED] | AM | RPS | Consultant |
| [REDACTED] | PRW | bp | Applicant |
| [REDACTED] | PC | bp | Applicant |
| [REDACTED] | JF | bp | Applicant |
| [REDACTED] | RE | Conwy County Borough Council (CCBC) | EWG |
| [REDACTED] | TT | Denbighshire County Council (DBC) | EWG |
| [REDACTED] | SW | Natural Resources Wales (NRW) | EWG |

Meeting Minutes

| Item | Detail | Actions | Date |
|--------------|--------|---------|------|
| Introduction | | | |

| Item | Detail | Actions | Date |
|------|---|---------|------|
| 1 | <p>Agenda</p> <p>The Mona Offshore Wind Project summarised the agenda for the Hydrology and Flood Risk EWG – meeting 1. This included remit and ways of working, indicative meetings programme, about the project, study area and baseline characterisation, hydrology and flood risk constraints, coastal defence programme and approach to drainage strategy for Onshore Substation.</p> | | |
| 2 | <p>Remit and inputs</p> <p>RPS outlined the remit and input of the hydrology and flood risk EWGs moving forwards, including ensuring that the Applicant provides sufficient and proportionate information in the assessment of Mona Offshore Wind Project; documenting agreement on information supplied by the Applicant to hydrology and flood risk stakeholders; outlining how baseline data and the methods and analyses used for the EIA satisfies the relevant legislation; identification of issues early in the EIA process and approach to the resolution of those issues; agreeing the results of the technical reports that support the EIA for the Mona Offshore Wind Project (onshore components); and providing a direct link between the EIA and development of Statements of Common Ground (SoCG).</p> <p>RPS also explained all communication should come via CR with the bp team included. Meetings will be held at key stages or when new information becomes available. Indicative timescales for inputs from Applicant and Stakeholders.</p> | | |
| 3 | <p>Indicative Meetings Programme</p> <p>RPS provided a summary of the indicative meeting programme with respect to hydrology and flood risk from June 2023 and December 2023. This included the participants and focus of each meeting.</p> | | |
| 4 | <p>About the Project</p> <p>The Applicant provided an overview of the Mona Offshore Wind project, including the following information:</p> <ul style="list-style-type: none"> bp and its partner EnBW are preferred bidders on two 60-year leases in UK Offshore Wind Round 4; | | |

| Item | Detail | Actions | Date |
|------|---|---------|------|
| | <ul style="list-style-type: none"> the partners intend to jointly develop and operate the leases to contribute to the UK's 40GW target for 2030; the first of the two wind farms is planned to be operational in seven years (autumn 2028); and combined potential generating capacity of 3 GW, sufficient to power the equivalent of approximately 3.4 million UK households with clean electricity. | | |
| 5 | <p>Project timeline</p> <p>The Applicant provided an overview of the indicative project timeline for the Mona Offshore Wind Project between 2021 and 2028/29, including Habitats Regulations Assessment (HRA), Expected signing of Agreement for Lease with The Crown Estate, Onsite environmental studies and project planning, Application for Development Consent Order (DCO), Marine Licence, Contracts for Difference (CfD) auction for power off-take agreement, Expected Final Investment Decision (FID), TCE Lease, First grid connection for power export commissioning of offshore substations and Expected start –Commercial Operation Date (COD).</p> | | |
| 6 | <p>About the Project</p> <p>The Applicant explained that Statutory consultation for the PEIR would place from 19 April to 4 June 2023 and consultation events in May 2023. The Applicant provided a figure showing the Mona Proposed Onshore Development Area to be submitted at PEIR, including landfall, Onshore Substation Options 2 and 7 and Temporary Construction Compounds.</p> | | |
| 7 | <p>Study area for hydrology and flood risk</p> <p>RPS explained the study areas to be used got the assessment of hydrology and flood risk. These comprised surface water receptors and flood risk receptors located within 250m of the Mona Proposed Onshore Development Area (excluding the Mona onshore substation), and flood risk receptors located within 1km of the Mona onshore substation area.</p> | | |
| 8 | <p>Baseline characterisation</p> <p>RPS explained the desktop sources used to characterise the baseline environment with respect to hydrology and flood risk. These included: British Geological Society (BGS) 1:50,000 and 1:10,000 digital geological mapping;</p> | | |

| Item | Detail | Actions | Date |
|------|---|---------|------|
| | SPZs/Aquifer Designations; Groundsure Environmental Search (Ref: GSIP-2022-12806-10820_A-D); Climate data; Local Flood Risk Management Strategies; Flood Map for Planning; Development Advice Map; National Flood Hazard and Risk Maps; Shoreline Management Plan; Catchment Flood Management Plan; CCBC SFCA; and DCC SFCA. | | |
| 9 | <p>Flood model data</p> <p>RPS outlined the data to be used for flood modelling which included: Product 5 and 6 data for the Point of Ayr to Pensarn 2017 coastal flood model; and Product 5 and 6 data for the Llanddulas 2016 flood model. RPS also explained that Product 5 and 6 data for the Point of Ayr to Pensarn 2017 provides flood extents and depths within the eastern extent of the landfall area a result of coastal defence overtopping and breach. In addition, climate change data was provided for present-day and 2117 scenarios.</p> | | |
| 10 | <p>Hydrology constraints</p> <p>RPS explained the hydrology constraints located within the study area, which includes the following operational catchments: Afon Elwy; Afon Clwyd; Afon Dulas; and Afon Gele. RPS then explained that there are no Main Rivers within study area. However, several ordinary watercourses are located within the study area, which include: Tributaries of Afon Gele, Afon Clwyd and Afon Elwy; Nant y Bryniau; Nant y Cregiau; Nant Luke; and Two tributaries of Nant Ganol.</p> <p>In addition, RPS stated that an ordinary watercourse flows northwards across along the Onshore substation indicative footprint of substation 7. The watercourse discharges into the River Elwy some 650m to the north-east of the indicative footprint of substation 7.</p> | | |
| 11 | <p>Flood risk constraints – landfall</p> <p>RPS explained the flood risk constraints at landfall, which included the following:</p> <ul style="list-style-type: none"> • The landfall area has a low risk of fluvial flooding and a high risk of tidal flooding. • The NRW Flood Map for Planning indicates that due to the beach profile, land southwards of the mean high water line is located within Flood Zone 1. Land to the north of the mean high-water line is predominantly located within Flood Zone 3 with marginal extents of Flood Zone 2. • DAM broadly corresponds to the Flood Map for Planning and indicates land within the eastern extent of the Landfall area benefits from the coastal wall flood defence and is located within Zone C1. The remainder | | |

| Item | Detail | Actions | Date |
|------|--|---------|------|
| | <p>of the Landfall area corresponding with Flood Zone 2 and 3 is located within Zone C2.</p> <ul style="list-style-type: none"> Land within Zones C1 and C2 within the eastern extent of the Landfall area is located within the Abergele Sea Road Flood Warning Area, reference 101FWTWN415. A marginal area within Zone C2 located within the far western extent of the Landfall area is also located within the North Wales coast Flood Alert area, reference 101WATNE10. It is noted there is an extent of Flood Zone 2 and 3 within the centre of the landfall area that is not included within a Flood Warning or Flood Alert. | | |
| 12 | <p>Flood risk constraints – onshore substation</p> <p>RPS explained the flood risk constraints at Onshore Substation options 2 and 7, which included Flood zone 1 (and Zone A) and a low risk of surface water flooding from ordinary watercourses and very low and negligible risk of flooding from all other sources.</p> | | |
| 13 | <p>Coastal flood defences</p> <p>RPS described the coastal flood defences at landfall. These included:</p> <ul style="list-style-type: none"> coastal sea defence wall, which is present along the onshore margin of the intertidal zone within the eastern extent of the landfall area. The flood defence provides a 1 in 200-year standard of protection and is maintained by CBCC. No additional flood defence structures are shown on NRW mapping to be present within the study area. Beach profile and groynes in western extent of landfall act as informal coastal defence. <p>RPS also request input from EWG regarding particular issues relating to the coastal defences to be included in the assessment.</p> | | |
| 14 | <p>Approach to drainage strategy for Onshore Substation</p> <p>RPS explained the approach to the drainage strategy for the Onshore Substation. This included the following information:</p> <ul style="list-style-type: none"> Surface water from impermeable areas of the site will be stored within an attenuation basin and discharged off-site at the 1 in 1-year greenfield runoff rate. Attenuation will be designed to accommodate the 1 in 100-year storm event with a 40% uplift for climate change. Based on MicroDrainage calculations, the | | |

| Item | Detail | Actions | Date |
|------|---|---------|------|
| | <p>following attenuation requirements for each substation are:</p> <ul style="list-style-type: none"> Onshore substation option 2: 5,255m³ (9.9l/s discharge rate) Onshore substation option 7: 5,262m³ (9.7l/s discharge rate) Discharge location will follow the SuDS discharge hierarchy, TBC following infiltration testing. <p>In addition, RPS also explained that the discharge location to be undertaken in-line with the SuDs hierarchy following soakaway testing to confirm infiltration capacity. Attenuation volume requirements to be refined based on further detail regarding layout and impermeable areas of the onshore substation. Once attenuation requirements are refined, the sizing and location of the attenuation basin will be updated (based on search areas identified in PEIR). Coordination with the ecology team at detailed drainage design to incorporate ecological aspects / requirements.</p> | | |
| 15 | <p>Actions – Confirm if CCBC adopted the Land Drainage (Wales) by laws</p> <p>Follow up on 15/06/2023 RE confirmed that CCBC adopted the Land Drainage (Wales) bylaws in 2019</p> | RE | |

Appendix Q: Land use and recreation

Q.1 Land use and recreation overview

Table Q.1: Land use and recreation.

| Date | Meeting | Information provided |
|-----------------|-----------------------------------|-------------------------|
| 31 October 2023 | Land use and recreation meeting 1 | Meeting minutes (Q.2.1) |

Q.2 Land use and recreation meeting 1

Q.2.1 Meeting minutes

Appendix A : PRow Management Proposals Meeting Minutes

| | |
|-------------------|---|
| Reference: | RPS_EOR0801_Mona_PRow_Management_MoM_Rev01 |
| Meeting Name: | Discussion of initial Public Rights of Way (PRow) management proposals for the Mona Offshore Wind Project |
| Meeting date: | 31 October 2023 |
| Meeting location: | Virtual (Microsoft Teams) |

Attendees

| Name | Initials | Company | Role |
|--------------|----------|-----------------------------------|--------------|
| Introduction | | | |
| ██████████ | BJ | RPS | Consultant |
| ██████████ | JT | RPS | Consultant |
| ██████████ | JF | bp | Applicant |
| ██████████ | AW | Denbighshire County Council (DCC) | PRow Officer |

Meeting Minutes

| Item | Detail | Actions | Date |
|-----------------|---|---------|------|
| Meeting Minutes | | | |
| 1 | <p>RPS explained they are preparing an Outline PRow Management Plan to accompany the Development Consent Order (DCO) for the Mona Offshore Wind Project.</p> <p>RPS presented a figure showing the PRow that intersect the Mona Onshore Development Area and initial management proposals, including requirements for managed crossings and temporary diversions.</p> <p>RPS summarised the initial management proposals to be included within the Outline PRow Management Plan that relate to PRow located within the local authority area of DCC.</p> | | |

| Item | Detail | Actions | Date |
|------|---|--|------|
| 2 | <p>RPS stated that for most of the PRoW that intersect the Mona Onshore Development Area, managed crossings would be utilised during construction of the Mona Offshore Wind Project.</p> <p>However, RPS explained that there would be the requirement for a managed crossing of the public bridleway (DE/208/32) during both construction and operation of the Mona Offshore Wind Project.</p> <p>This was because public bridleway (DE/208/32) intersected both the Mona Onshore Development Area and the area of land proposed for permanent access to the Onshore Substation.</p> <p>AW (DCC) - Stated that they did not have any specific concerns regarding the requirements for managed crossings of affected PRoW identified within the Mona Onshore Development Area during construction and operation of the Mona Offshore Wind Project.</p> | | |
| 3 | <p>RPS explained that there would be the requirement for one temporary diversion during construction of the Mona Offshore Wind Project. This comprised the temporary diversion of a public footpath (DE/105/5) which routes along a section of the Onshore Cable Corridor.</p> <p>AW (DCC) – Explained that DCC have no statutory powers when it comes to the management of temporary diversions and the liability rests with the relevant landowner. This sometimes introduces problems where agreements cannot be reached between the Applicant and the landowner.</p> <p>AW (DCC) – Explained that due to the lack of alternative PRoW in the area, although the number of PRoW users is quite low, any temporary diversions or stopping up of affected PRoW. Including footpaths and bridleways would have a greater impact in terms of access.</p> <p>AW (DCC) – Explained that DCC are less concerned with requirements for temporary diversions/stopping and more concerned with how quickly affected PRoW will be reinstated post-construction (i.e. able to return to legal use as soon as possible).</p> <p>AW (DCC) - Stated that they did not have any specific concerns regarding the requirements for temporary diversion of public footpath (DE/105/5) during construction of the Mona Offshore Wind Project.</p> <p>JW (RPS) – Explained that requirements for the maintenance and reinstatement of affected PRoW would be secured through the Outline PRoW Management Plan, which is to be submitted in support of the DCO for the Mona Offshore Wind Project.</p> | | |
| 4 | <p>RPS queried if the Mona Offshore Wind Project could utilise what appeared to be an existing managed crossing (associated with historic developments in the area) of a</p> | <p>DCC to confirm status of public</p> | |

| Item | Detail | Actions | Date |
|------|--|-------------------------------|------|
| | <p>public bridleway (DE/208/32) intersected by the permanent access road.</p> <p>AW (DCC) – Stated that there is pressure from nearby horse riding groups for the re-opening of this bridleway, which is understood to be currently closed following construction of other nearby developments. DCC suggested that they would confirm if this was still the case.</p> <p>AW (DCC) –Stated that there is also wider pressure from nearby riding groups to improve bridleway provision in the area and improve connectivity to the wider PRow network.</p> | <p>bridleway (DE/208/32).</p> | |

Appendix R: Traffic and transport

R.1 Traffic and transport overview

Table R.1: Overview of Traffic and transport consultation.

| Date | Meeting | Information provided |
|-------------|---------------------------------|-------------------------|
| 17 May 2023 | Traffic and transport meeting 1 | Meeting minutes (R.2.1) |

R.2 Traffic and transport meeting 1

R.2.1 Meeting minutes

Appendix A Highways EWG01 Meeting Minutes

| | |
|-------------------|---|
| Reference: | RPS_EOR0801_Mona_Highways_EWG01_MoM_Rev01 |
| Meeting Name: | Highways Expert Working Group (EWG) – Meeting 1 |
| Meeting date: | 17 May 2023 |
| Meeting location: | Virtual (Microsoft Teams) |

Attendees

| Name | Initials | Company | Role |
|--------------------|----------|---|------------|
| Introduction | | | |
| ██████████ | CR | RPS | Consultant |
| ██████████ | DA | RPS | Consultant |
| ██████████████████ | PRW | bp | Applicant |
| ██████████ | PC | bp | Applicant |
| ██████████ | JF | bp | Applicant |
| ██████████ | JR | Conwy County Borough Council (CCBC) | EWG |
| ██████████ | MP | Denbighshire County Council (DBC) | EWG |
| ██████████████████ | NM | North and Mid Wales Trunk Road Agent (NMWTRA) | EWG |
| ██████████ | CD | Welsh Government | EWG |

Meeting Minutes

| Item | Detail | Actions | Date |
|--------------|--------|---------|------|
| Introduction | | | |

| Item | Detail | Actions | Date |
|------|---|---------|------|
| 1 | <p>Agenda</p> <p>The Mona Offshore Wind Project summarised the agenda for the Highways EWG – meeting 1. This included details about the project, indicative meetings programme, summary of the traffic and transport PEIR chapter, access and traffic management, existing known highways issues, scope of the transport assessment and transport related considerations from recent development.</p> | | |
| 2 | <p>About the Project</p> <p>The Applicant provided an overview of the Mona Offshore Wind project, including the following information:</p> <ul style="list-style-type: none"> • bp and its partner EnBW are preferred bidders on two 60-year leases in UK Offshore Wind Round 4; • the partners intend to jointly develop and operate the leases to contribute to the UK's 40GW target for 2030; • the first of the two wind farms is planned to be operational in seven years (autumn 2028); and • combined potential generating capacity of 3 GW, sufficient to power the equivalent of approximately 3.4 million UK households with clean electricity. | | |
| 3 | <p>Project timeline</p> <p>The Applicant provided an overview of the indicative project timeline for the Mona Offshore Wind Project between 2021 and 2028/29, including Habitats Regulations Assessment (HRA), Expected signing of Agreement for Lease with The Crown Estate, Onsite environmental studies and project planning, Application for Development Consent Order (DCO), Marine Licence, Contracts for Difference (CfD) auction for power off-take agreement, Expected Final Investment Decision (FID), TCE Lease, First grid connection for power export commissioning of offshore substations and Expected start –Commercial Operation Date (COD).</p> | | |
| 4 | <p>About the Project</p> <p>The Applicant explained that Statutory consultation for the PEIR would place from 19 April to 4 June 2023 and consultation events in May 2023. The Applicant provided a figure showing the Mona Proposed Onshore Development Area to be submitted at PEIR, including landfall, Onshore Substation Options 2 and 7 and Temporary Construction Compounds.</p> | | |
| 5 | <p>Indicative Meetings Programme</p> <p>RPS provided a summary of the indicative meeting programme with respect to highways from May 2023 to</p> | | |

| Item | Detail | Actions | Date |
|------|---|---------|------|
| | October 2023. This include the participants and focus of the meetings to take place. | | |
| 6 | <p>Summary of Traffic and Transport PEIR Chapter</p> <p>RPS provided a summary of the Traffic and Transport assessment in the PEIR. This included a summary of the impacts scoped into the assessment, such as construction traffic, impacts scoped out of the assessment, such as traffic generated during operation and a description of access routes and initial estimates of construction vehicle movements.</p> | | |
| 7 | <p>Existing known highway issues</p> <p>RPS provided a summary of known highway issues, including through St Asaph Business Park and along Engine Hill, along B5381/Glascoed Road, A547/A548/through Abergele and A55 and junctions along A55.</p> <p>RPS then asked the EWG if they had any feedback regarding issues to be included in the scope of transport assessment and if any matters related to the Awel y Mor Offshore Wind Farm required consideration.</p> | | |
| | <p>Points raised</p> <p>DCC advised that construction HGVs should avoid St Asaph High Street and St Asaph in general</p> <ul style="list-style-type: none"> • DCC advised that Engine Hill was narrow for oncoming HGVs passing one-another • Welsh Government and North and Mid Wales Trunk Road Agent advised that the A55 Junction 23 has short slip roads and there has been incidents in the past • Welsh Government and North and Mid Wales Trunk Road Agent advised that routes to the A548 from the south via the A470 / A5 can be narrow in places • DCC advised that, in principle, access junctions onto the B5381 would be acceptable if they met highway design standards • DCC, Welsh Government and North and Mid Wales Trunk Road Agent advised that a cumulative assessment in which the construction of Awel y Mor overlapped with the Mona Offshore Wind Project would represent a robust analysis • Agreed that, in accordance with the Scoping Report, an assessment of impacts during the operation and maintenance phase and decommissioning phase can be scoped out | | |

| Item | Detail | Actions | Date |
|------|--|---------|------|
| | <p>CCBC advised that Abergele can be busy during certain times of the day and year and that surveys of this should be undertaken</p> <ul style="list-style-type: none"> • CCBC advised that routes to the A548 from the south via the A470 / A5 can be narrow in places • CCBC advised that, in principle, access junctions (including that onto the A547 via the existing gap in the wall to TCC1) would be acceptable if they met highway design standards | | |
| 8 | Questions | | |

Appendix S: Noise and vibration

S.1 Noise and vibration overview

Table S.1: Overview of Noise and vibration consultation.

| Date | Meeting | Information provided |
|-------------------|---|---|
| 06 September 2022 | Sound monitoring email to Denbighshire County Council | Sound monitoring email to Denbighshire County Council (S.2.1) |
| 28 September 2022 | Denbighshire County Council response to sound monitoring email | Denbighshire County Council response to sound monitoring email (S.3.1) |
| 25 August 2023 | Additional baseline sound survey email to Denbighshire County Council | Additional baseline sound survey email to Denbighshire County Council (S.4.1) |
| 25 August 2023 | Additional baseline sound survey email to Conwy County Borough Council | Additional baseline sound survey email to Conwy County Borough Council (S.5.1) |
| 01 September 2023 | Conwy County Borough Council response to Additional baseline sound survey email | Conwy County Borough Council response to Additional baseline sound survey email (S.6.1) |
| 24 January 2024 | Noise and vibration meeting 1 | Meeting minutes (S.7.1) |

S.2 Sound monitoring email to Denbighshire County Council

S.2.1 Sound monitoring email to Denbighshire County Council

From: [REDACTED]
Sent: 06 September 2022 11:56
To: [REDACTED]
Cc: [REDACTED]; [REDACTED] <[REDACTED]>
Subject: bp/EnBW Mona Noise monitoring locations

Dear [REDACTED]

Partner companies bp and EnBW are preferred bidders on a 60-year lease awarded by The Crown Estate in Offshore Wind Leasing Round 4. bp and EnBW are leading the development of the Mona offshore wind project, located in the east Irish Sea. RPS has been appointed by bp and EnBW to prepare an Environmental Impact Assessment (EIA) for the development of the Mona offshore wind project.

bp and EnBW have identified a shortlist of seven option locations for the onshore substation, which will be the subject of a targeted consultation running from 26 September until 7 November. All the locations on the short list are in the vicinity of the existing Bodelwyddan substation in Denbighshire.

In order to inform the EIA, we would like to undertake baseline noise monitoring at a number of onshore receptors; these receptors are located close to the proposed landfall and the onshore substation. The noise monitoring locations are shown on the attached figure and set out in the table below.

| Position | Location | Landfall/Substation | Short term/long term monitoring |
|----------|--------------------------|---------------------|---------------------------------|
| 1 | Lon-Y-Dryw | Landfall | LT |
| 2 | Harts Caravan Park | Landfall | ST |
| 3 | Troon Way | Landfall | LT |
| 4 | Castle Cove Caravan Park | Landfall | ST |
| 5 | Hen Wrych Farm | Landfall | LT |
| 6 | The Beach Caravan Park | Landfall | ST |
| 7 | Tan-yr-Ogof Farm | Landfall | LT |
| 8 | Marble Church Grove | Substation | LT |
| 9 | Felin Y Gors Mill | Substation | LT |
| 10 | Glascoed Road | Substation | ST |
| 11 | Unnamed Road, Glascoed | Substation | LT |
| 12 | Tyddyn Meredydd | Substation | ST |
| 13 | Waen Meredydd | Substation | LT |
| 14 | Isfryn | Substation | LT |
| 15 | Plas-yr-Esgob | Substation | ST |
| 16 | Coed-yr-Esgob | Substation | LT |
| 17 | Tyn-y-Ffordd Faw | Substation | ST |
| 18 | Unnamed Road, Pen-Rhewl | Substation | LT |
| 19 | Bryn-y-Pin Mawr | Substation | LT |

| | | |
|----|---|----|
| 20 | Farm North of Afon Elwy Substation | ST |
| 21 | Lyons Eryl Hall Caravan Substation Park | LT |

Long-Term Unattended Surveys

Long-term unattended sound monitoring surveys will be undertaken following the guidance contained in British Standard (BS) 7445 'Description and measurement of environmental noise, Part 2; Guide to the acquisition of data pertinent to land use'. Monitors would be installed over a period of one to two weeks. At some of the locations, meteorological equipment will also be installed. This will include a mast for wind monitoring and a rain gauge.

Long-term monitors will be installed in secure locations on privately owned land and therefore land access will be agreed with residents.

It may not be possible to acquire access to all of the proposed long-term sound monitoring locations. In that case we will seek to find a suitable substitute short-term sound monitoring location and will carry out the measurements following the procedure for short-term attended surveys below.

Short-term Attended Surveys

Short-term monitoring would be carried out over four 15-minute periods during the daytime between 07:00 hrs and 23:00 hrs, and two 15-minute periods during the night-time between 23:00 and 07:00 hrs.

At the start of each measurement, the wind speed and direction will be measured using a hand-held anemometer to ensure that the direction and magnitude are acceptable for sound monitoring. No short-term attended monitoring surveys will be carried out during periods of significant rainfall.

Equipment

Long-term sound monitoring equipment will consist of a sound level meter housed in a weather-proof box (approx. box dimensions: 43 x 33 x 16 cm, weighing approx. 5 kg with all equipment inside). The equipment is powered by internal rechargeable batteries; mains power is not required.

The microphone and windshield will be mounted in one of the following three ways: with an integral pole attached to the side of the weatherproof box; on a separate pole which will be attached to a fence or similar structure; or on a tripod pegged into soft ground or secured to the weatherproof box or a solid structure.

Short-term attended surveys will be mounted on tripods at approximately 1.5 m above local ground level. The mounting and type of windshield used would be dependent upon meteorological conditions

I would be grateful if you could review the proposed scope and locations of the baseline noise monitoring survey and get back to me with your comments.

Thank you for your time.

[Redacted]

[Redacted]

rps

[Redacted]

S.3 Denbighshire County Council response to sound monitoring email

S.3.1 Denbighshire County Council response to sound monitoring email

From: [REDACTED]
Sent: 28 September 2022 15:39
To: [REDACTED] <[REDACTED]>
Cc: [REDACTED] <[REDACTED]>; [REDACTED] (CONTRACTOR) [REDACTED]
[REDACTED] <[REDACTED]>; [REDACTED] <[REDACTED]>
Subject: RE: bp/EnBW Mona Noise monitoring locations

CAUTION: This email originated from outside of RPS.

Dear [REDACTED].

Thank you for the email with the details of the proposed monitoring sites and the method statement.

For clarity, only the proposed monitoring locations at the potential substation site/s are in Denbighshire.

Your proposal appears suitable however I would like to put forward Position 15 (Plas Yr Esgob) as a long term monitoring site please.

Kind Regards

[REDACTED]

~~~~~  
[REDACTED]  
Uwch Swyddog Technegol (Iechyd Amgylchedd)/Senior Technical Officer (Environmental Health)  
Gwasanaethau Cynllunio, Gwarchod y Cyhoedd a Chefn Gwlad / Planning, Public Protection and  
Countryside Services

[REDACTED]  
Ffon / Telephone: [REDACTED]

Ffacs / Fax: [REDACTED]

Ebost / email: [REDACTED]

Gwefan / Website: [REDACTED]

e County Council may be required to disclose this e-mail [or any response to it] under legislative provisions.

**MONA OFFSHORE WIND PROJECT**

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**S.4 Additional baseline sound survey email to Denbighshire County Council**

**S.4.1 Additional baseline sound survey email to Denbighshire County Council**

██████████

11/11/2016

A baseline sound survey was undertaken in November 2022 at locations representative of the nearest noise-sensitive receptors to the proposed landfall and onshore substation locations. As you highlighted in your response to our request for consultation for the first baseline survey in September 2022, only the measurement positions around the proposed substation locations were situated in Denbighshire. Monitoring was not undertaken within other areas of the Mona Proposed Onshore Development Area as the location of the Onshore Cable Corridor and 400kV Grid Connection Corridor had not yet been confirmed.

Measurements will be undertaken at the proposed locations for a period of up to 7-days. A weather station will be installed alongside one of the monitoring locations to monitor wind speeds and record any rain events which may adversely affect the measured levels. All measurements will be undertaken with reference to the guidance outlined in British Standard (BS) 7445-2:1991 – *'Description and measurement of environmental noise. Guide to the acquisition of data pertinent to land use.'*

All measurements will be undertaken using 'Class 1' sound level meters housed within a weatherproof box and powered by 12V batteries via a DC power supply. The microphone will be housed within a weatherproof windshield and mounted on a pole at a minimum height of 1.5 m above local ground level.

Thank you for taking the time to review our proposal and I look forward to hearing from you.

Dr [REDACTED] [REDACTED])  
Senior Consultant - Acoustics  
RPS Consulting UK & Ireland

TIDE

M -

**S.5 Additional baseline sound survey email to Conwy County Borough Council**

**S.5.1 Additional baseline sound survey email to Conwy County Borough Council**



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**From:** [REDACTED]  
**Sent:** 25 August 2023 12:23  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** bP/EnBW - Mona Onshore Cable Corridor Baseline Sound Monitoring Locations

Dear Ms. [REDACTED],

I am writing to seek consultation regarding the proposed methodology for an additional baseline sound survey to inform the Environmental Impact Assessment (EIA) for the Mona Offshore Wind Project. Please find a summary below.

A baseline sound survey was undertaken in November 2022 at locations representative of the nearest noise-sensitive receptors to the proposed landfall and onshore substation locations. Monitoring was not undertaken within other areas of the Mona Proposed Onshore Development Area as the location of the Onshore Cable Corridor and 400kV Grid Connection Corridor had not yet been confirmed.

As such, an additional baseline sound survey is required to obtain representative baseline sound levels at the noise-sensitive receptors situated along the Onshore Cable Corridor and 400 kV Grid Connection Corridor. Long-term monitoring is proposed at 12 locations along the Onshore Cable Corridor with 7 of these locations situated in Conwy. Please see the attached figure showing the proposed locations.

Measurements will be undertaken at the proposed locations for a period of up to 7-days. A weather station will be installed alongside one of the monitoring locations to monitor wind speeds and record any rain events which may adversely affect the measured levels. All measurements will be undertaken with reference to the guidance outlined in British Standard (BS) 7445-2:1991 – *'Description and measurement of environmental noise. Guide to the acquisition of data pertinent to land use.'*

It should be noted that the monitors will be installed in secure locations on privately owned land and thus access will be subject to agreement with the relevant landowners. It may not be possible to undertake long-term monitoring at all positions proposed and thus, where necessary, suitable short-term sound monitoring locations will be identified and measurements undertaken during the day and night-time periods. Weather conditions at short-term monitoring locations will be monitored using the data recorded by the weather station and a hand-held anemometer.

All measurements will be undertaken using 'Class 1' sound level meters housed within a weatherproof box and powered by 12V batteries via a DC power supply. The microphone will be housed within a weatherproof windshield and mounted on a pole at a minimum height of 1.5 m above local ground level.

I would be grateful if you could review the above information and respond with any comments you may have. Please don't hesitate to contact me with any queries.

Thank you for taking the time to review our proposal and I look forward to hearing from you.

Kind regards,

Dr. [REDACTED]

- S.6 Conwy County Borough Council response to Additional baseline sound survey email**
- S.6.1 Conwy County Borough Council response to Additional baseline sound survey email**

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**From:** [REDACTED] <[REDACTED]>

**Sent:** Friday, September 1, 2023 5:20 PM

**To:** [REDACTED] >

**Cc:** [REDACTED] >

**Subject:** FW: bP/EnBW - Mona Onshore Cable Corridor Baseline Sound Monitoring Locations

**CAUTION:** This email originated from outside of RPS.

[REDACTED],

Your email has found its way to me to have a look at and respond to.

Your proposed locations would appear to be indicative locations to gather baseline sound levels at noise sensitive premises, apart from Sirior Bach.

Sirior Bach is a holiday caravan site with, in the region of 140 static caravans on site. As far as I'm aware, no one lives on site permanently (in the old farmhouse). Activities on the site are likely to affect and increase the background/baseline noise levels.

I appreciate that you will need the landowners agreement to install your equipment, which may not be forthcoming, however I note on the map provided there are other properties in close proximity to your proposed locations, the owners of which may be more accommodating to your request.

Regards

[REDACTED]

[REDACTED]

Pen Swyddog Iechyd yr Amgylchedd / Principal Environmental Health Officer

Gwasanaethau Rheoleiddio a Thai / Regulatory and Housing Services

Cyngor Bwrdeistref Sirol CONWY County Borough Council

E-bost/E-mail: [REDACTED]

Gwe/Web: [REDACTED] / [REDACTED]

Ffon/Te [REDACTED]

## **S.7 Noise and vibration meeting 1**

### **S.7.1 Meeting minutes**

## Appendix A Noise and Vibration Meeting Minutes

|                   |                                                          |
|-------------------|----------------------------------------------------------|
| Reference:        | EOR0801 – Noise and Vibration Meeting                    |
| Meeting Name:     | Mona Offshore Wind Project - Noise and Vibration Meeting |
| Meeting date:     | 24 January 2024                                          |
| Meeting location: | MS Teams                                                 |

### Attendees

| Name               | Initials | Company              | Role                     |
|--------------------|----------|----------------------|--------------------------|
| ██████████         | CR       | RPS                  | Consultant               |
| ██████████         | AS       | RPS                  | Consultant               |
| ██████████████████ | PRW      | bp                   | Applicant                |
| ██████████         | PC       | Denbighshire Council | County<br>Statutory body |

| Item | Detail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Actions | Date |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------|
| 1    | <p><u>Introduction</u></p> <p>CR made the introductions and explained that the purpose of the call was to share the operational noise assessment that had been undertaken for the proposed Onshore Substation for the Mona Offshore Wind Project.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |      |
| 3    | <p><u>Overview</u></p> <p>AS explained that noise impacts have been assessed at receptors due to the operation of the Mona Onshore.</p> <p>A 3D acoustic model has been constructed to predict operational noise levels for the baseline (unmitigated) and mitigated scenarios.</p> <p>A baseline sound survey was undertaken at receptors around the Mona Onshore Substation in November 2022. Representative background sound levels LA90,T have been derived in line with the guidance in BS 4142:2014+A1:2019 at the nearest noise sensitive receptors.</p> <p>Operational noise limits:</p> <p>Mona Onshore Substation proposed to operate 24/7. As such, operational noise limits were derived on the night-time representative background sound level at the nearest and most exposed receptors.</p> <p>A difference +5 dB is considered indicative of an adverse impact in terms of BS 4142 and thus a limit is proposed where the rating level of all plant is less than +5 dB above the representative background level.</p> <p>The assessment shows that by meeting the proposed limit of 334dB at Tan y Bryn Uchaf, no adverse impacts are expected at other receptors.</p> <p>PC considered that the assessment had followed the correct approach as was pleased to see that the nearest receptor had been</p> | None    | N/A  |

| Item | Detail                                                                                                                                                | Actions | Date |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------|
|      | assessed even though the property is currently unoccupied. PC's initial feedback was that the noise assessment and the limits proposed were sensible. |         |      |
| 8    | <u>Actions</u><br>CR to send a copy of the presentation to PC                                                                                         |         |      |