Dear Member of the Offshore Wind Energy Community:

We kindly request your assistance in gathering information on offshore wind energy projects around the world and the environmental monitoring conducted at each.

The [Tethys](https://tethys.pnnl.gov/) team has partnered with IEA Wind’s [WREN Initiative](https://tethys.pnnl.gov/about-wren) to collect information, or metadata, on the environmental effects of offshore wind energy projects on marine animals, habitats, and ecosystem processes. By making this information widely available, Tethys and WREN aim to advance global understanding of these effects and progress the industry in an environmentally responsible manner. Tethys hosts similar information for marine energy projects (e.g., wave, tidal) through the OES-Environmental Initiative, which can be viewed [here](https://tethys.pnnl.gov/oes-environmental-metadata).

**Please fill in the following questionnaire with information on your project and any associated environmental monitoring efforts**, including links to **relevant publications and any publicly available data.** We are collecting information from test sites, demonstration projects, and commercial farms that have conducted environmental monitoring at any stage in the life cycle. Please find the example questionnaire attached to this email and send any questions to tethys@pnnl.gov. We will request annual updates to ensure the information provided is accurate and up to date, so please be sure to provide a reliable point of contact.

By participating in the metadata collection process, you will assist the offshore wind energy community by contributing to the compilation of environmental effects information in a single location to allow for:

* **Increased awareness** amongst developers and regulators about new and current monitoring techniques, which may inform new investments into monitoring methods and mitigation strategies;
* **Increased efficiency** of the permitting/consenting process by precluding studies shown to yield few results (under certain conditions), allowing for shorter and less costly processes;
* **Reduced uncertainty** for targeted investments of environmental effects by government agencies and other funding sources, further clarifying the permitting/consenting process; and
* **Value-added interpretation and knowledge** through the examination of key research findings in conjunction with project monitoring data, informing optimal siting, and permitting.

Thank you in advance for contributing to this valuable effort!

Kind regards,

The Tethys Team

**OFFSHORE WIND ENERGY PROJECT - METADATA QUESTIONNAIRE**

Name & Affiliation of Person Reviewing Form: Date Submitted/Last Reviewed:

Project Contact Information

*Name (will be publicly available):*

*Email (will be publicly available):*

Project Details

*Project Name:*

*Project Website:*

*Project Manager(s):*

*Project Scale:* [ ]  Test Site [ ]  Demonstration [ ]  Commercial Farm

*Project Status:*  [ ]  Planning [ ]  Under Construction [ ]  In Operation [ ]  Not in Operation

 [ ]  Decommissioned [ ]  Cancelled

*Technology Type:* [ ]  Fixed Offshore Wind [ ]  Floating Offshore Wind

*Project Coordinates (Mercator in decimal degrees):*

*Country:*

*Construction Start Date:*

*Operation Start Date:*

*Decommissioning Date (if applicable):*

*Physical Site Conditions (Select all that apply)*

*Site:* [ ]  Deep water (>60 m) [ ]  Shallow water (<60 m) [ ]  Lake [ ]  Marine

*Water Depth (e.g., 20 m):*

*Distance from shore (km):*

*Benthic Habitat:* [ ]  Hard-bottom Habitat [ ]  Soft-bottom Habitat

*Turbine Developer(s):*

*Turbine* *Model(s):*

*Hub Height(s):*

*Rotor diameter(s):*

*Number of Turbines:*

*Capacity of Each Turbine (MW):*

*Installed Capacity (MW):*

*Foundation Manufacturer(s):*

*Support Structure (Select all that apply)*

*Substructure:* [ ]  Monopile [ ]  SPAR Buoy

[ ]  Gravity Foundation [ ]  Tension Leg Platform

[ ]  Tripod Foundation [ ]  Semi-Submersible

[ ]  Jacket Foundation [ ]  Suspended Counter Weight

[ ]  Suction Bucket [ ]  Other: \_\_\_\_\_\_\_\_\_\_

*Anchor (if applicable):*  [ ]  Suction Anchors [ ]  Gravity Anchors

 [ ]  Drag Embedment Anchors [ ]  Other: \_\_\_\_\_\_\_\_\_\_

*Mooring (if applicable):* [ ]  Catenary [ ]  Semi-Taut [ ]  Taut [ ]  Tension Leg [ ]  Other: \_\_\_\_\_\_\_\_

*Power Export Cables (select all that apply):*  [ ]  Buried Seafloor Cables [ ]  Unburied Seafloor Cables

 [ ]  Cables in the Water Column

*Inter-array Cable Voltage (kV):*

*Export Cable Type:* [ ]  AC [ ]  DC

*Export Cable Voltage (kV):*

*Number of Export Cables:*

*Cable Landfall Method*: [ ]  Horizontal Directional Drill [ ]  Trenched [ ]  Other: \_\_\_\_\_\_\_\_\_

Project Image

*Please attach a high-resolution image of the project (or project site) or provide a link to an image. If the image is too large to email, we can provide a file transfer link.*

Project Description *Please provide a brief description of the project and any additional project information not included above.*

Location

*Please provide any additional information about the project location (e.g., water body, distance to shore, distance to nearest port, cable landfall).*

Project Timeline

*Please provide a brief description of the project’s timeline including its current status and planned development.*

Licensing Information

*Please provide a brief description listing the organizations involved,* *licenses acquired, and duration of the permitting/consenting process.*

Key Environmental Issues

*Please provide a brief summary of the key environmental issues faced by this project, such as sensitive species or habitats in the development area, and plans or strategies to address these issues (e.g., monitoring, mitigation).*

Papers and Reports

*Please list any key reports or papers that describe environmental assessments or monitoring conducted. Documents will be added to* Tethys*, so please provide a PDF of the file or a link to where the file can be accessed. Details on specific studies and available datasets can be listed in the tables below.*

Environmental Monitoring Conducted at the Project Site

*In the table below, please provide details of all environmental monitoring associated with the project, including the relevant phase(s), stressor(s), and receptor(s); a description of the study, methods, and results (if available); status (e.g., planned, ongoing, completed); links to relevant publications; and links to any publicly available data. Additional rows may be added. View the* [*Tethys Glossary*](https://tethys.pnnl.gov/glossary) *for more information on the stressor and receptor terms.*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Phase** | **Stressor** | **Receptor** | **Study Type** | **Methods** | **Results** | **Status** | **Publications** | **Link(s) to Data** |
| Choose an item. | Choose an item. | Choose an item. |  |  |  |  |  |  |
| Choose an item. | Choose an item. | Choose an item. |  |  |  |  |  |  |
| Choose an item. | Choose an item. | Choose an item. |  |  |  |  |  |  |
| Choose an item. | Choose an item. | Choose an item. |  |  |  |  |  |  |
| Choose an item. | Choose an item. | Choose an item. |  |  |  |  |  |  |

**Example Table**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Phase** | **Stressor** | **Receptor** | **Study Type** | **Methods** | **Results** | **Status** | **Publications** | **Link(s) to Data** |
| Baseline |  | Bats, Birds | Boat Based Survey | Boat-based visual surveys were conducted in Spring and Fall in around the study site. | Low overall bat diversity and activity levels were found in the study area. A variety of bird species were observed. | Complete | Publication URLPublication URL   | Data Link Data Link |
| Baseline, Construction | Noise | Marine Mammals | Passive Acoustic Monitoring Study | Two passive acoustic listener systems were deployed 2 years before construction within 4km of the study site. | Results led to limiting pile driving from May to October to avoid migratory periods for endangered species. | Complete | Publication URL | Data Link |
| Construction, Operations | Habitat Change | Fish, Invertebrates | ROV Video Survey | Remotely operated vehicles (ROV) will be used to conduct visual surveys before and after foundation installation.  |  | Planned | Publication URL | No data publicly available. |
| Choose an item. | Choose an item. | Choose an item. |  |  |  |  |  |  |