

Data Management Plan

1.0 Introduction

The following Data Management Plan (DMP) is proposed as the guidance document for the National Offshore Wind R&D Consortium.

It is anticipated that work carried out as part of the Consortium's activities will include a large number of individual projects generating a variety of data in different formats. Therefore, this DMP must allow sufficient flexibility to accommodate the full variety of projects and data generated. At the same time, the DMP ensures compliance with EERE's data protection requirements and sets out a clear plan for managing, coordinating and disseminating data as appropriate.

2.0 Rationale

The Data Management Plan must balance the needs of end-use customers, who may derive commercial benefit from exclusive rights to project data, and the public interest in disseminating project data for the benefit of non-commercial researchers and the market as a whole. The Consortium has developed this plan in line with proven principles that have been accepted by offshore wind developers in the Offshore Wind Accelerator (OWA) program managed by the Carbon Trust in Europe.

For example, a recent OWA project, the Pile Soil Analysis (PISA) project, was funded by offshore wind developers with much of the work performed by academic partners. In order to satisfy the requirements of both, the results of the project were made exclusively available to the funding parties for two years, giving sufficient opportunity to commercialize the results. After two years, the academic partners were permitted to publish their results. The design methodology developed in the project is now available for commercialization by other companies, benefitting the entire industry.

3.0 Data Types and Sources

3.1 Technical Reports

Technical reports will be generated as part of the Consortium's activities. These will potentially include engineering reports, supply chain assessments, market studies and other written analysis. Additional technical data such as drawings, spreadsheets, maps and other visual materials may be embedded in written reports or included as an Appendix.

3.2 Engineering Drawings / CAD Files

In the course of producing technical reports, detailed engineering drawings and design files may be generated. Such files could include 2D and 3D renderings of designs created with CAD (Computer Aided Design) engineering software packages as well as structural, manufacturing and thermal models.

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3.3 Raw Measurement Data

Consortium activities may include direct measurement of performance or environmental data as part of field validation trials and measurement assessments. Typical data obtained may encompass structural data from sensors or gauges, wind speed measurement data, or vessel data.

3.4 Processed / Interpreted Data

Raw measurement data may be cleaned, processed and interpreted for use in GIS software such as ESRI ArcGIS or similar.

3.5 Commercially sensitive or proprietary data submitted as part of project proposals

The Consortium intends to competitively solicit the majority of the projects identified as research priorities. As such, it is recognized that each proposal submitted for a project may contain confidential and commercially sensitive information or proprietary data. It is considered that any information provided as part of a project proposal is confidential and therefore will only be accessible to Consortium members for the sole use of evaluating the most suitable candidate(s) to undertake that specific work.

4.0 Content and Format

4.1 Documentation Plans

The Consortium plans to administer a master document register for all research projects. The register will contain a list of all formally issued documentation, reports and data, and include such metadata fields as:

- Title;
- Description;
- Resource Type;
- Date of issue;
- Revision history;
- Confidentiality level;
- Confidentiality level review date

4.2 Metadata

The Consortium will implement an appropriate recognized metadata standard for all data acquired. Examples of these standards include the International Organization for Standardization (ISO), The Federal Geographic Data Committee (FGDC) and The Infrastructure for Spatial Information in Europe (Inspire).

The metadata will provide basic information about the data in a standardized format. It will help the Consortium to maintain consistency across all data collected and stored, and will allow data to be discovered, understood and shared by those with an interest in the projects.

4.3 Data Standards and Conventions

Data standards and conventions will be agreed at the outset of each project that the Consortium solicits and will be included in any contracts the Consortium signs with a contractor. This will

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include items such as datums, units of measurement and the format of deliverables. Wherever practicable, the Consortium will aim to keep consistent data standards across all research projects.

4.4 Individual Projects

Each project undertaken by the Consortium will include an agreed Data Management Plan to ensure compliance with the wider Consortium DMP.

If it is considered that a specific project may require an alternative approach to the standard DMP agreed by the consortium then a comprehensive DMP will be developed and agreed with the Board prior to work commencing on the project.

5.0 Sharing and Preservation

5.1 Information Sharing

As an industry-led and market driven Consortium, the information sharing policy is generally designed to provide offshore wind developers access to results, while allowing transparency and access to the wider research community and private industry for commercialization .

- A list of data and reports generated by the Consortium activities will be published on the Consortium's website and the EERE website as required;
- To support commercialization, results of a project will be made available exclusively to parties providing Consortium funding parties for a 'capitalization period' of 12 months;
- Research organizations may submit a formal request to the Consortium to access data and reports from on the published list prior to the end of the 12 month capitalization period. Requests will be authorized by the Board.
- After the 12 month capitalization period all data and reports will be published on the Consortium's website and/or the EERE website.

Exceptions may be made to this policy for projects that the Consortium determines will benefit more from dissemination of knowledge than from commercialization, for example projects to increase market awareness and penetration..

As the industry matures, this 12 month limit may be extended to preserve the benefits to offshore wind developers and encourage further investment and growth of the Consortium.

5.2 Preservation Plans

As the Consortium plans to continue its activities well beyond the four-year funding provided by EERE, long term continuity of data will be maintained on the Consortium website. Should the Consortium stop its activities, the data will be stored on a central server and a holding page displayed on the website with a list of available data and a contact point to request such data. Should the Consortium end its operations at the end of the EERE funding term, all data will be transferred to EERE at that point.

6.0 Protection

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6.1 Personal Data

The Consortium will abide by the Department of Energy's privacy policy in relation to personal data, and will ensure compliance with and implementation of the Privacy Act of 1974 and the e-Government Act of 2002.

6.2 Commercially Sensitive Data

All data generated from projects will be stored within a cloud-based system that meets best practice data security processes and standards and for which independent verification has been obtained. It will be ensured that such a system meets the requirements of FISMA, ISO 27001 and ISO 27018 to maintain security and protection of commercially sensitive data. Non-Disclosure Agreements

Where appropriate, non-disclosure agreements (NDAs) will be put in place to control the sharing of information beyond the consortium. Such NDAs will form part of the consortium board agreements, and a template NDA will be drafted in order to control any data being transmitted to or from the consortium to other stakeholders or project participants. Such a document will include provisions to control sharing of data, storage of data and destruction of data if required.