Portal and Repository for Information on Marine Renewable Energy

Advances in marine energy are producing large quantities of information, ranging from power performance data and environmental monitoring reports to device testing guidance and software code. Data and information from marine energy projects are often not publicly available, are stored in many locations and in diverse formats, and are often not catalogued or easily accessible. As demonstrated in other industries, sharing data and information plays a crucial role in spurring innovation, reducing costs, and advancing technologies.

The U.S. Department of Energy (DOE) Water Power Technologies Office (WPTO) directed Pacific Northwest National Laboratory, National Renewable Energy Laboratory, and Sandia National Laboratories to enhance the accessibility and discoverability of information relevant to marine energy research and development in the U.S. The Portal and Repository for Information on Marine Renewable Energy (PRIMRE) provides easy access to the seven Knowledge

USE

Hubs (detailed below), tools and codes, and other resources available within the marine energy space.

Marine energy is also known as marine renewable energy [MRE] and marine and hydrokinetic energy [MHK].

































Scan to visit PRIMRI

Test Centers

The PRIMRE universe, with PRIMRE indicated as the central entry point, and the Knowledge Hubs arranged around it. The outer ring indicates the stakeholder groups served by PRIMRE.

PRIMRE Knowledge Hubs

MHKDR

Marine and Hydrokinetic Data Repository (MHKDR) is a repository for data collected by WPTO-funded projects, including results of tank and open water device tests, resource characterization data and model outputs, techno-economic analyses, levelized cost of energy estimates, and more.

Tethys

Tethys hosts thousands of documents on the environmental effects of wind and marine energy, along with a suite of other resources intended to support the international marine energy community through the Ocean Energy Systems' Environmental initiative.

Tethys Engineering

Tethys Engineering hosts thousands of documents on the technical and engineering aspects of marine energy research and development, as well as a library of photos and illustrations available for free third-party use.

Marine Energy Atlas

Marine Energy Atlas is an interactive mapping tool that maps US wave, tidal, riverine current, ocean current, and ocean thermal resources. It supports everything from project siting to device design through high-resolution and spatially comprehensive data sets.

Marine Energy Projects Database

Marine Energy Projects Database contains up-todate information on marine energy projects around the world, devices and related technologies used by these projects, and points to organizations active in the marine energy field.

MRE Software

MRE Software is a collection of software relevant to marine energy development that is organized into the PRIMRE Code Catalog, a searchable online discovery platform for open-source and commercial software, and the MRE Code Hub, a collection of open-source software for simulating devices, and processing and analyzing data.

Telesto

Telesto provides information and guidance for testing, measurement, and data analysis for marine energy research, development, and demonstration. It also features the Testing Facilities Database, a collection of device testing facilities, and the Sensor and Instrumentation Database, a catalogued collection of sensors and instruments used by the marine energy industry.

For More Information

Visit https://primre.org for more information on the Knowledge Hubs, tools and codes, and other resources available through PRIMRE.

Contacts

- Andrea Copping (<u>andrea.copping@pnnl.gov</u>)
 Pacific Northwest National Laboratory
- Jon Weers (<u>jon.weers@nrel.gov</u>)
 National Renewable Energy Laboratory
- Cesar Castillo (<u>cesar.castillo@sandia.gov</u>)
 Sandia National Laboratories







