

## OCEAN ENERGY SYSTEMS IMPLEMENTING AGREEMENT (OES)

As the authoritative international voice on ocean energy we collaborate internationally to accelerate the viability, uptake and acceptance of ocean energy systems in an environmentally acceptable manner.

# Annex IV

## ASSESSMENT OF ENVIRONMENTAL EFFECTS AND MONITORING EFFORTS FOR OCEAN WAVE, TIDAL, AND CURRENT ENERGY SYSTEMS

### OPERATING AGENT

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Working with the Federal Energy Regulatory Commission (FERC) (Phase I), the Bureau of Ocean Energy Management (BOEM), and the National Oceanic and Atmospheric Administration (NOAA).

Implemented by Pacific Northwest National Laboratory, on behalf of DOE.

### DURATION

This Annex started in January 2010 and was concluded in March 2013. It was renewed for a second three-year phase in May 2013 to run through May 2016.

### OBJECTIVE

There are currently a wide range of ocean energy technologies and devices in development around the world; the few data that exist on environmental effects of these technologies are dispersed amongst different countries and developers.

The aim of Annex IV is to facilitate efficient government oversight of the development of ocean energy systems by expanding our baseline knowledge of environmental effects and monitoring methods. One of the primary goals of the Annex is to ensure that existing information and data on environmental monitoring (and, to the extent possible, practices for environmental mitigation) are more widely accessible to those in the industry; national, state, and regional governments; and the public. The Annex will facilitate knowledge and information transfer.

#### Phase 1: 2010-2012

Creation of a searchable, publically available database of research and monitoring information to evaluate environmental effects and an analysis of three key environmental interactions around wave and tidal devices.

#### Phase 2: 2013-2016

The success of the Annex IV program warranted a second phase to continue and expand efforts. Phase 2 primarily focuses on updating and expanding the database, writing a state of the science report, and creating a community of experts intent on collaborating to support the advancement of the industry.

### RESULTS

*Tethys* is a knowledge management system that gathers, organizes, and provides access to information on the environmental effects of marine and offshore wind development. The database includes data from ocean energy projects and project sites.

Search the database at: <http://tethys.pnnl.gov/>



[www.ocean-energy-systems.org](http://www.ocean-energy-systems.org)

