

Annex IV Project - Ocean Energy Systems Implementing Agreement

Assessment of Environmental Effects and Monitoring Efforts for Ocean Wave, Tidal, and Current Energy Systems

Hoyt Battey
U.S. Dept of Energy

Andrea Copping
**Pacific Northwest
National Laboratory**





Ocean Energy Systems Implementing Agreement

- Established in 2001 by 3 countries, has now grown to 18.
- Mission: to realise, by 2020, the use of cost-competitive, environmentally sound ocean energy on a sustainable basis.
- Implementing agreements are frameworks which exist under the International Energy Agency to facilitate international collaboration in energy technology R&D, demonstration and information exchange.
 - IEA is not directly involved, provides some administrative support
 - Allows countries to collaborate on specific projects or “Annexes” of their choosing
- Currently 4 Annexes in operation, each led by an Operating Agent

OES-IA Annexes

- **Annex I** - Review, Exchange and Dissemination of Information on Ocean Energy Systems
 - Focus on characterizing technology development, policy and economic information: several reports published.
 - Instituto Nacional de Engenharia e Tecnologia Industrial (Portugal)
- **Annex II** - Development of Recommended Practices for Testing and Evaluating Ocean Energy Systems
 - Numerous reports on design, testing standards and assessing resources
 - Danish Energy Agency (Denmark)
- **Annex III** - Integration of Ocean Energy Plants into Distribution and Transmission Electrical Grids
 - Powertech Labs Inc. (Canada)
- **Annex IV** – Assessment of Environmental Effects and Monitoring
 - Goal to create a public, international database of research
 - U.S. Department of Energy (United States)



Annex IV

- Workplan proposed, finalized and accepted during 2009
 - Work officially began in January 2010
 - U.S. DOE to act as Operating Agent (project administrator)
- Scoped as a 3-year project, scheduled to conclude December 2012
- 9 countries are official participants
 - Each contributing €5,000 per year plus in-kind additions
 - Will seek to incorporate data and ongoing research in all OES-IA countries
- Goal to ensure that existing information regarding environmental monitoring and ongoing research are more widely accessible to those in the industry; national + regional governments; and the public.



Annex IV

- Year 1
 - Design database (Pacific Northwest National Lab)
 - Solicit for contractor to identify existing synthesis info, aid in data collection and analyze case studies (Wave Centre / U. Plymouth)
 - Hold expert's workshop to review/comment on database, identify cases/data and discuss data collection (Irish Marine Institute)
- Experts Workshop Goals
 - Advise on database construction, format, usability, access



Thank You for your Time!

Hoyt Battey

Market Analyst, Water Power
Wind and Water Power Office
U.S. Department of Energy
202-586-0143
hoyt.battey@ee.doe.gov

Andrea Copping