

Utility Market Initiative Road Show

Prepared by Pacific Energy Ventures On behalf of Oregon Wave Energy Trust

March 2011

This work was funded by the Oregon Wave Energy Trust (OWET). OWET was funded in part with Oregon State Lottery Funds administered by the Oregon Business Development Department. It is one of six Oregon Innovation Council initiatives supporting job creation and long-term economic growth.

Oregon Wave Energy Trust (OWET) is a nonprofit public-private partnership funded by the Oregon Innovation Council. Its mission is to support the responsible development of wave energy in Oregon. OWET emphasizes an inclusive, collaborative model to ensure that Oregwarting 2012 competitive advantage and maximizes the economic development and environmental potential emerging industry. Our work includes stakeholder outreach and education, policy development, environmental assessment, applied research and market development.



UMI Road Show Briefing Summary March, 2011

Pacific Energy Ventures (PEV) successfully disseminated the Utility Market Initiative (UMI) to the majority of relevant utility stakeholders in Oregon. Outreach materials were developed and presented to utility companies and other entities throughout the State. A series of 6 different workshops and meetings were held in southern Oregon, the coast, and the Portland area.

Meeting Outcomes

- Improved knowledge and understanding of wave energy and specific utility integration issues for majority of Oregon utility stakeholders.
- Identification of key areas of interests: resource variability, forecast ability, local area integration requirements.
- An OWET connection/relationship was built and fostered throughout the process of scheduling and delivering the Road Show material.

Feedback from Participants

- Information was useful and thorough as it relates to utility integration.
- Keen interest and appreciation regarding the transmission integration information.
- Interested in understanding some of the local upgrades to the transmission system that might be needed.
- Strong interest in more detailed forecasting and hourly variability data.
- Better understanding of cost of energy will be required.
- Question about the coincidence/relationship between wave energy resource and wind resource patterns in the northwest.

Issues Raised

• No real significant issues were raised. Participants felt the UMI project met the utilities needs at this stage of industry development.

Value of Road Show

- Every one of the participants commented on the value of the Road Show in informing stakeholders on technology, resource and integration issues.
- Many asked for us to return as more information is developed.

Meaningful Interaction

- For Tillamook, EWEB, BPA, NW Power and Conservation Council and PacifiCorp, the focus was on educating to a broader audience both the resource and its capability and integration issues. These audiences were very engaged and interested in the information.
- For PGE, the discussion was very focused and technical in nature. The audience delved into some of the detailed reports in the UMI report and meaningfully engaged specifically in integration and forecasting issues.

Workshops and meetings consisted of general overviews of wave energy and specific discussions of the UMI project. Topics of most interest included scheduling, forecasting, and resource characterization. A

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complete copy of the presentation is included as Appendix A. The following is a list of organizations and participants who received copies of the UMI DVD and presentation.

Portland General Electric......November 8, 2010

Hosted by Dee Outama, Origination and Structuring (dee.outama@pgn.com)

Briefing Included the following staff:

- Ty Bettis (ty.bettis@pgn.com)
- John Morton (john.morton@pgn.com)
- Damon McCauley (damon.mccauley@pgn.com)
- Bill Casey (bill.casey@pgn.com)

Tillamook County PUD...... November 29, 2010

Hosted by Pat Ashby, General Manager Tillamook PUD (pashby@tpud.org) Briefing Included:

- Nancy Dillard (ndillard@tpud.org)
- Bob White (bwhite@tpud.org)
- Barbara Johnson (bjohnson@tpud.org)
- Doug Olsen (dolsen@tpud.org)

Northwest Power and Conservation Council December 15, 2010

Agenda Item sponsored by Jeff King (jking@nwcouncil.org), Power Council Staff Briefing Included:

- Bruce Measure, Council Chair, Council Member from Montana
- Dick Wallace, Council Vice-Chair, Council Member from Washington
- Bill Booth, Council Member from Idaho
- Jim Yost, Council Member from Idaho
- Melinda Eden, Council Member from Oregon
- Joan Dukes, Council Member from Oregon
- Tom Karier, Council Member from Washington
- Power Council Staff
- Kevin Watkins, PNGC (kwatkins@pngcpower.com)
- Public audience

Eugene Water and Electric Board...... December 15, 2010

Hosted by Megan Capper (megan.capper@eweb.org)

Briefing included:

- Clay Norris, Director of Power Resources (clay.norris@eweb.org)
- Dick Varner, Project Management and Planning Supervisor (dick.varner@eweb.org)
- Approximately 10 other staff from:
 - o Resource planning and management
 - Trading Floor
 - Energy Efficiency

Bonneville Power AdministrationFebruary 3, 2011

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Hosted by Terry Oliver, Chief Technology Innovation Officer (tvoliver@bpa.gov) Briefing included:

- John Pease, R&D Project Manager (jhpease@bpa.gov)
- John Schaad, Customer Service Engineer (jgschaad@bpa.gov)
- Craig Collar, Senior Manager, Energy Resources (cwcollar@snopud.org)
- Approximately 20-25 participants from:
 - o Engineering
 - Innovation and Technology
 - o Environmental Planning and Management
 - Legal Counsel

PacifiCorpMarch 8, 2011

Hosted by Mark Tallman, Vice President, Renewable Resource Acquisition (mark.tallman@pacificorp.com)

- Joelle Steward (Joelle.Steward@PacifiCorp.com)
- Tashiana Wangler (Tashiana. Wangler@PacifiCorp.com)
- BJ Moghadam (BJ.Moghadam@PacifiCorp.com)
- Sarah Edmonds (Sarah.Edmonds@PacifiCorp.com)
- Alisa Dunlap (Alisa.Dunlap@PacifiCorp.com)
- Scott Bolton (Scott.Bolton@PacifiCorp.com)
- Bruce Griswold (Bruce.Griswold@PacifiCorp.com)
- Stacey Kusters (Stacey.Kusters@PacifiCorp.com)
- Erik Andersson (Erik.Andersson@PacifiCorp.com)
- Pat Egan (Pat.Egan@PacifiCorp.com)
- Barb Coughlin (Barb.Coughlin@PacifiCorp.com)
- Jon Christensen (Jon.Christensen@PacifiCorp.com)

Other Outreach:

Briefings were offered to the following entities. Each of them declined because they had sufficient information about the project or because they would attend one of the other sessions.

- PNGC Kevin Watkins (KWatkins@pngcpower.com)
- PNUCC Shauna McReynolds (Shauna@pnucc.org)
- Central Lincoln Mike Wilson (mwilson@cencoast.com)
- Douglas Electric Dave Sabala (dsabala@douglaselectric.com)

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