

Addendum to A Blueprint for Ocean Energy Development 2010-2015

Introduction

OWET convened the second annual OWET Developers' Summit on August 2, 2011 in Portland, Oregon.

The Summit brought together participants, both new and those who had attended the first OWET Developers' Summit 2010, to review the Blueprint for Ocean Energy Development 2010-2015 and to discuss: the progress made in developing ocean energy during the past year, ongoing challenges, and modifications to the Blueprint needed to refine its strategies to advance ocean energy development in Oregon and the Pacific Northwest of North America by 2015.

This addendum to the Blueprint captures the results of the Summit. OWET intends for this addendum to supplement the action plan focused on advancing a responsible ocean energy industry that is presented in the Blueprint. Blueprint action items will continue to define OWET's work.

Goal and Objectives for Oregon Ocean Energy Development by 2015

Goal established in 2010.

OWET's overarching goal for 2015 is to make Oregon the most attractive state in the U.S. for developing ocean energy, and one of the leading ocean energy centers in the world.

Recommended modifications to the goal.

OWET's overarching goal is to make Oregon a leading place, a "first mover," in the U.S. for ocean energy development with strong government support, academic leadership and a growing industry in ocean energy.

Suggested objectives to achieve the goal include:

- Leadership that is both recognized and influential
- Projects installed and operating
- Grid-connected test facility installed and operating
- Jobs created
- 10-20 MW generated
- Leases and licenses for four grid-connected demonstration projects
- Ocean energy zones established in the Territorial Sea Plan (Note: the zones need to accommodate different types of technologies)
- Financial structure that is attractive to developers and utilities
- Regulatory structure that is as efficient as possible while still addressing all regulatory requirements, and one that is understood by all participants
- Physical infrastructure established including grid connections and transmission

Blueprint Review: The Electric Transmission System

Clarifications, modifications and additions:

- Work with utilities to understand what will motivate them to invest in ocean energy
- Articulate the value of ocean energy to utilities
 - Better highlight the value of the reduced east/west and north/south transmission load scenario resulting from new ocean energy generation off the Oregon coast
 - Share information on the merits of ocean energy's predictability and potential, and how to integrate those issues into planning



- Help them understand the long-term potential for ocean energy (an example of this is the wind story 20 years ago)
- Consider the full integration costs of ocean energy with available, eastern transmission compared to the full integration costs of wind energy with added transmission
- Highlight and emphasize that ocean energy has high winter potential at the same time that Oregon energy needs are higher
- Lead a Pacific Region effort to develop a financial model that helps convey these values to utilities and, therefore, accelerate project and industry development
- Recruit utilities as allies to help support policy advancement
- Partner with utilities on research and development

Blueprint Review: Regulatory/Permitting Issues

Clarifications, modifications and additions:

- Successes since the first Summit include BOEM's task force established for Oregon, MOUs established between FERC and the Coast Guard, FERC and NOAA, FERC and DOE, and FERC and USFWS
- Identify a project to serve as a case example for improved regulatory siting and licensing. Improve coordination across agencies with the applicant/developer and other stakeholders
- Make sure that publicly funded research is publicly available and shared to build our collective knowledge base
- It is important to engage NOAA on policy topics, research and development, and individual projects
- Explore the concept of creating an Oregon Department of Marine Renewable Energy as a 'one-stop shop' for state and local permitting and licensing of ocean energy projects. Explore whether the Joint Agency Review team suffices, or an equivalent to the Energy Facilities Siting Council for ocean energy projects should be established
- Encourage more MOUs among federal agencies, and among federal and state agencies
- Consider ways that data collected on one project or R&D efforts can be shared and help inform other projects. Efficient use of existing and gathered information can improve efficiencies



Blueprint Review: Policy and Finance

Clarifications, modifications and additions:

- Explore ways for the government to share risk, including:
 - Construction risk (such as: will the machinery show up on time?)
 - Operating risk (such as: will the equipment break, what are the maintenance costs?)
 - Electric generation risk (such as: will the machines generate enough power to provide the cash to pay lenders/investors?)
 - Price risk (such as: offer a guaranteed price per kilowatt hour such as feed in tariffs)
 - Demand guarantees (such as: have a purchaser of the power established in advance)
- Explore new market and/or investment tax credits, such as a Blue Tag voluntary initiative, feed in tariffs, or loan guarantees
- Establish decommissioning protocols that do not require removing every part of the anchoring system
- Create ways for all permitted sites to have extensions or transfers to other operators or users
- Establish and implement a robust marketing and education and outreach effort to help establish awareness and support for ocean energy as a positive, needed and valued energy source by OWET

Priority Recommendations for Action

The Electric Transmission System

- Prepare the ‘value proposition’ case for ocean energy for utilities and policy makers
- Develop better relationships with Bonneville Power Administration and other important regional utility entities
- Facilitate collaboration and serve a leadership role in helping developers connect with utility entities around the state



Regulatory and Permitting

- Support development of a full capacity research center on the Outer Continental Shelf with state and federal partnership
- Establish a Marine Renewable Energy Office, or a clear and efficient state and federal licensing and permitting process
- Establish a clear process for phased project development and associated licensing

Policy and Finance

- Advocate for increased federal funding for research and development and long-term incentives
- Advocate for increased state funding and incentives
- Develop a vision with ocean energy zones; research and development to gather data supporting all projects; and then establish an efficient and effective licensing process that all participants understand, with clear adaptive management plans

OWET (added category with actions)

- Strengthen OWET's leadership, fund-raising capacity, and organizational profile and clarify OWET's mission/value statement, purpose and niche
- Support technology developers
- Help establish project development capabilities to support technology developers
- Examine lessons learned from Denmark to transfer here
- Create an OWET and ocean energy value proposition
- Create a public awareness program to increase support of and demand for ocean energy
- Explore additional funding mechanisms
- Support a site-specific success story and get a project in the water
- Advocate for increased federal funding for both research and development and long-term incentives
- Advocate for increased state funding and incentives



APPENDIX D

OWET Developers' Summit Attendees
August 2, 2011

Meleah Ashford
Northwest National Marine
Renewable Energy

Dan Bates
Thorn Run Partners

Kevin Banister
OWET Board
Principle Power

Hoyt Battey
US Department of Energy

Chandra Brown
OWET Board
Oregon Innovation Council
Oregon Iron Works

Jason Busch
Oregon Wave Energy Trust

Chris Campbell
Ocean Renewable Energy
Group

Richard Chwaszczewski
SAIC Marine Technologies

John Doussard
Oregon Innovation Council

Nehal Gajjer
Ecomerit

David Gibson
OWET Board
Oregon Iron Works

Mike Grainey
Oregon Business Development
Dept

James Hastreiter
Federal Energy Regulatory
Commission

Maurice Hill
Bureau of Energy Management,
Regulation and Enforcement

Ken Homolka
Oregon Department of Fish and
Wildlife

David Kenney
Oregon BEST

Paul Klarin
Oregon Department of Land
Conservation and Development

Justin Klure
Pacific Energy Ventures

Robert Lurie
Ocean Power Technologies

Jaron Ming
Bureau of Ocean Energy
Management, Regulation and
Enforcement

Scott Nelson
Office of Governor Kitzhaber

Sean O'Neil
Ocean Renewable Energy
Coalition

Robert Park
Shift Power Solutions

Kip Pheil
Oregon Department of Energy

Jeremy Rogers
Oregon Business Plan

Neil Rondorf
SAIC



John Schaad
Bonneville Power Administration

Rebecca Sherman
Oregon Department of Energy

Louise Solliday
Oregon Department of State
Lands

Bill Staby
Resolute Marine Energy, Inc.

Stefanie Stavrakas U.S. Fish
and Wildlife Service

Staff

Jason Busch
Oregon Wave Energy Trust

Maegan Hollister
Oregon Wave Energy Trust

Andrew Hudson
Oregon Wave Energy Trust

Cate Millar
GamePlan, LLC

Matthew Sanders
Oregon Wave Energy Trust

Anna West
Kearns & West

Jane Vvedensky
Shift Power Solutions

Rick Williams
OWET Board
SAIC

Theresa Wisner
Aquamarine Power

Ron Yockim
Douglas County



APPENDIX E

Developers' Summit
 The Leftbank Annex
 101 North Weidler Street
 Portland, OR 97227

Tuesday, August 2, 2011: 9:00 am – 5:00 pm

Meeting Objectives:

- *Review Blueprint for Ocean Energy Development*
- *Discuss actions taken*
- *Discuss emerging issues and needs*
- *Establish actions, commitments to achieve 2015 objectives, including OWET actions and others' actions*

7:30-8:30	Coffee, Tea, Light Breakfast
8:30-9:00	Session Overview, Introductions and Agenda Review <ul style="list-style-type: none"> • Welcome and Introductions – <i>Jason Busch, OWET Executive Director</i> • Session Overview – <i>Anna West, facilitator, Kearns & West</i>
9:00-10:00	Goals/Objectives <ul style="list-style-type: none"> • Review • Revisions
10:00-10:15	Break
10:15-11:30	Blueprint Review -- Electric Transmission Grid <ul style="list-style-type: none"> • Review Blueprint • Review Actions to Date • Explore Changes, Trends, Needs • Recommend Revised Actions
11:30-12:00	Blueprint Review -- Regulatory and Permitting Issues <ul style="list-style-type: none"> • Review Blueprint • Review Actions to Date • Explore Changes, Trends, Needs • Recommend Revised Actions
12:00-1:30	Lunch Sponsored by Portland Development Commission



- 1:30-2:30 Blueprint Review -- Regulatory and Permitting Issues Continued
- 2:30-2:45 Break
- 2:45-4:15 Blueprint Review -- Policy and Finance
- Review Blueprint
 - Review Actions to Date
 - Explore Changes, Trends, Needs
 - Recommended Revised Actions
- 4:15-4:30 Actions Review, Priorities, Commitments
- Review All Topics; Recommended Priority Actions
 - Priority Actions for OWET; Others
- 4:30-6:30 SAIC Pre-Conference Reception

