



## Canada-US Ocean Energy Roundtable Summary San Diego, June 20<sup>th</sup>, 2006

### Participation

#### United States

Brent	Ballard	Gulfstream Technologies
John	Baylouny	Ocean Power Technologies Inc.
Neal	Brown	Float Incorporated
Max	Chamovitz	
Linda	Church Ciocci	National Hydropower Association
Darcy	Cook	SAIC
Elizabeth	Corbin	Hawaii Ocean Science & Technology
John	Davis	
Trevor	Demayo	Chevron Energy Technology
Gregory	Edge	GPA Technologies
Brad	Fisher	SeaCon Brantner & Associates Inc.
John	Flynn	ODI Advanced Technology Systems
Maurice	Hill	Minerals Management Service
David	Horrigan	Dhart Development
Phillip	Janca	Gulfstream Technologies
Damian	Kunko	Ocean Renewable Energy Coalition
Richard	Meyer	Ocean Energy Council
Jim	Montgomery	Functional Design
Emil	Moroz	Garrad Hassan America
Leonard	Pool	Sidus Solutions
Florencia	Quintanar	Scripps Institution of Oceanography
Neil	Rondorf	SAIC
Brock	Rosenthal	Ocean Innovations
Mark	Thomas	INRI
Cory	Weinbel	Helix Energy Solutions
Alla	Weinstein	Aqua Energy Group
Michael	Weston	Sidus Solutions

Jerry                      Wilson                      Fugro Pelagros

**Canada**

Neil	Anderson	Coastal Hydropower Corporation
Sean	Barr	Consulate of Canada
Chris	Campbell	Ocean Renewable Energy Group
David	Carrick	Wave Energy Technologies Inc
Jim	English	Oceanworks
Jenelle	Hawkins	Consulate of Canada
Jessica	Johnson	OREG
Rahim	Ladha	Industry Canada
Mary Jane	Parks	AquaEnergy Group
Nigel	Protter	Sieber Energy
Chris	Roper	Roper Resources
Robert	Sproule	Wave Energy Technologies Inc
Lisa	Stockley	Consulate General of Canada
Michael	Tarbotton	Triton Consultants Ltd
Walter	von Laubenfels	Ensol Research
Andrew	Walls	BC Innovation Council

**Workshop objective**

- Review of current status and initiatives by leadership groups
- Discussion of common agenda and goals
- Profile building with:
  - Government
  - Financial community
  - Supply chain
- Creating a public demand
- Creating a North American ocean energy sector
- Creation of a working alliance of leadership groups

**Workshop Dynamics**

The workshop provided an introduction to the Ocean Renewable Energy Group (OREG) and Canadian efforts, US lobby group the Ocean Renewable Energy Coalition (OREC), the Ocean Energy Council (OEC), the National Hydropower Association (NHA) and the European Marine Energy Association (EMEA). This was a first meeting of these groups and for many of the non-Canadian participants it was a first introduction to OREG and the Canadian initiatives.

OREG chaired the discussions, allowing opening comments from OREC and OEC (and later comments from NHA), inviting round table introductions, and providing a brief overview of OREG's focus and activities to date.

A lively discussion occupied about one hour with good participation. Participants noted the value in having a discussion forum as the opening of a conference session. Adjourning to an informal social gathering cemented this dynamic.

## **Results and Further Actions**

There was a universal agreement that ocean energy needs visible success. This success is part of building the business case that proves the ocean energy reality, reliability and allows evaluation of longer term cost implications.

While there was discussion of the need to influence the general public (the ultimate retail ocean energy customer), agreement focused on influencing the industrial champions as the first priority. Public education is needed, but cannot be undertaken by ocean energy associations alone and cannot deflect our core activity from identifying the early *wholesale* customers and development of the market pull for ocean energy power projects.

*The implication was that OREG and OREC continue to try to focus on development of the primary market pull, and the OEC and Foundation for Ocean Renewable Energy take a part in the broader public education around renewables.*

Discussions looked at lessons from the move by the offshore oil and gas industry into deepwater – a resource need that stimulated exploration and technology innovation. Who are the potential customers facing similar pressures?

*It was suggested that OREG, EMEA and CHA work to develop a "leaders" list among utilities and energy companies who are driven to expand renewable interests as an extension of core energy business, are looking for renewable resources, or are motivated to balance their non-renewable business profile with renewables. There was also a suggestion that a broad international analysis look at markets whose current and future energy costs would make early-stage ocean energy an attractive alternative (this might be a market study developing a matrix of energy market costs and capacity needs in, for instance, island states, to be analysed against ocean energy resource availability).*

The second priority in profile development is seen as the financial community. Discussion identified the ACORE renewables finance conference as being more appropriate to established sectors working on larger scale project roll out. However the US National Renewable Energy Laboratory runs an annual showcase that attracts financiers interested in more early stage technology development investment.

*It was suggested that OREG, OREC and CHA work to identify venues and groups that are interested in these early stage projects, are able to secure additional public sector funding or are ready to work to enable projects whose economics are justified by the experience development and roadmap to commercial operation.*

The value of having the sector leadership in North America enter into dialogue was reinforced through discussions that emphasized the need to exchange materials that can be used to educate target audiences, and indeed efforts to identify those target audiences. The work of EPRI and its partners and of the Canadian Resource Assessment projects are examples of materials that give ocean energy validity and make it clear that ocean energy can be part of the energy, economic and climate change solutions.

*It is expected that OREG, OREC and NHA will build an alliance to raise the profile of these achievements. The communication effort by each of these organizations, and particularly OEC and FORE must build on these and European experiences.*

## **Conference, Tradeshow and Meetings**

At EnergyOcean 2005, OREG provided an opening report from Canada and was greeted with supportive interest. In the same role at EnergyOcean 2006, OREG was able to report on its organisational development, the Canadian resource assessment and multi-dimensional project activity and emerging policy and regulatory developments in Canada. Canada was presented, and accepted, as a place to do ocean energy business. OREG was represented by 2 staff, individuals from 7 Canadian member companies and 3 of its international members. At least one new US member was recruited on site.

Energy Ocean 2005 was an event whose key attendees were probably GE and Voith-Siemens, both of whom making investments in the sector in 2005/6. These large industrials were not in attendance in 2006, but Shell and Chevron and several large US utilities were. A large law company provided an overview of financing renewable ocean energy projects in an environment where renewable energy is emerging as the *next big thing*. Several conference participants are talking of potential \$100m funds to back the early projects and there seems to be a mounting conviction that strategic financing may become available from pools of motivated capital, even if the utilities are not (able) willing and the energy companies are likely looking for nearer-market solutions.

Each of the OREG team companies that attended reported new useful contacts, potential team building relationships or business actions.

## **Actions**

OREG will circulate these notes to OREC, NHA, and OEC. With their input, the notes will go to workshop participants.

OREG intends to develop a more thematic approach in its website to address some of the profiling issues identified. OREG will share information resources with NHA, OREC and OEC.

The potential for a *Priority Market Assessment* will be considered if an appropriate partner will take it on.

OREG and NHA will work on developing a priority target list of utility and energy companies from which to build a network of champions.

OREG, OREC and NHA will endeavour to share awareness of opportunities to educate the financial community of interest.

NHA and OREC will continue discussions to avoid confusions (potential excuses) offered by having multiple leadership groups. OEC and FORE need similar discussions if communication efforts are to be streamlined.

OREG, OREC and NHA will work on creation of a signature ocean energy conference recognizing that there is considerable momentum behind the OREG events, the EnergyOcean series, the Hydrovision event, and emerging regional initiatives like the event being held in Oregon on July 14, 2006.

## **Participant Feedback**

In order to build on the momentum created at the roundtable discussions and to keep events focused on industry needs and desires, we would like participants to reply to the following series of questions.

1. What are some methods of increasing the awareness of ocean energy's potential?
  - a. Can you contribute to newsletters and websites?
  - b. Can you give public talks if you have powerpoint presentations and printable handouts?
  - c. What events do you see as being profile building for the sector?
  - d. Other
2. What are the key challenges currently facing the ocean energy industry?
  - a. Finance?
  - b. A market pull?
  - c. Building company/team/consortium capability?
  - d. Other
3. What are some action items for a North American ocean energy alliance?
4. Who is the target audience for future events in the near term?
  - a. The renewable ocean energy community?
  - b. The broader renewables community?
  - c. The power industry?

- d. The marine industry?
  - e. Other
5. What does the industry need from conferences at this stage?
- a. Goals?
  - b. Objectives?
  - c. Participants?
  - d. Organization?
  - e. Frequency?
  - f. Other

**Please Email responses to [SDFeedback@oreg.ca](mailto:SDFeedback@oreg.ca)**