

OREG SPRING MEETING

Challenges to Building a Successful Ocean Energy Industry





LESSONS FROM EUROPE

Europe has been involved in developing an offshore/ocean energy industry for several years, leading to some helpful observations:

- Developed, well funded demonstration facility at EMEC, but berth reservation structure has resulted in slow pace filling berths; (plus and minus)
- Applying learnings from offshore wind industry, especially in technology/EA
- Examining interesting funding options for development and delivery
- Significant association with academic community
- Demonstrating extensive collaboration with international community



POSITIVE NS DEVELOPMENTS

In the last 3 years several positive actions have been taken in our region to nudge the ocean energy industry along:

- Canadian companies have put together viable demonstration projects
- The Nova Scotia Provincial Government initiated a Strategic Environmental Assessment, a previously rarely used instrument (building awareness and support)
- The academic and research communities have begun to create a network and a research plan for Instream Tidal



POSITIVE NS DEVELOPMENTS

- The federal government has provided funding, support for environmental data collection and leadership for the creation of standards
- OREG and others have brought together people with this common interest to attempt to build momentum
- Communities, resource users and the general public have shown a loyal interest in the development and destiny of this fledgling industry, while protecting key resources

We have come a long way but still face some difficult realities:

- While this is a good site for instream tidal, there are other sites in the world, and the limited number of developers will not wait forever
- Certain elements of projects continue to be prohibitively costly, e.g., marine cable, deployment/retrieval
- At this stage we have not seen the necessary savings that come from economies of scale; at this stage instream tidal is not cost competitive



REALITIES THAT WE FACE

- The best locations for tidal are not near supporting infrastructure (e.g., transmission lines, deep harbours, readily available skills/shops)
- The United States, under President Obama are starting to invest in renewables, including tidal
- Time has passed and we still do not have demonstration units in the water

To move forward and be successful we can do the following:

- Streamline the regulatory regime including environmental approval
 - Sign a federal/provincial EA Joint Agreement
 - Provide timely review/approval – especially for demos
 - Facilitate discussions with First Nations and resource users
 - Enhance support for baseline data collection



CHALLENGES / OPPORTUNITIES

- Increase the provincial and federal funding for research, development, demonstration and commercialization. That funding has to be up front, consistent, and over several years to provide certainty
 - Properly fund the full cost of demonstration centre
 - Properly fund the collection of baseline data necessary for next stage (arrays)
 - Advance research in critical areas including allowable energy extraction, undersea connections, meaningful monitoring, etc.
 - Tie certain funding to projects requiring appropriate student participation to develop next generation of professionals
 - Identify and put in place funding mechanisms to incent grid connected projects



CHALLENGES / OPPORTUNITIES

- Create proper support for development of transmission grid and access to it, and for development of industry supply chain
 - Support plans for necessary transmission and distribution line development
 - Advance local harbour infrastructure
 - Promote development of local skills/shops to support manufacture, deployment and maintenance of units

- Develop necessary community support, especially for larger projects
 - Identify community development opportunities
 - Resolve resource user conflicts/compensation
 - Work through appropriate First Nations consultation
 - Identify international collaboration opportunities