



“Beyond Cape Wind” Community Planning Process

Ocean Energy Brainstorming: The Future of Offshore Wind, Wave & Tidal Energy in the Cape & Islands Region

May 19, 2006

Massachusetts Technology Collaborative, Westborough, MA

Organized & Facilitated by
Chris Powicki, Water Energy & Ecology Information Services

Logistical & Technical Support by
Josh Kessler, Massachusetts Technology Collaborative
Roger Bedard, Electric Power Research Institute
Tana Watt, Cape Cod Commission

The meeting began at approximately 11:45 am, immediately after a presentation by Roger Bedard of the Electric Power Research Institute (EPRI) on findings from a feasibility assessment of a tidal energy demonstration project sited in Muskeget Channel between Martha’s Vineyard and Nantucket. This feasibility study had been funded by the Massachusetts Technology Collaborative (MTC).

Individuals representing the following Cape & Islands organizations weathered a long drive through heavy rain to attend the brainstorming session: Alliance to Protect Nantucket Sound, Cape & Islands Renewable Energy Collaborative (CIREC), Cape Cod Commission, Cape Cod Economic Development Council, Cape Light Compact, Clean Power Now, Martha’s Vineyard Commission, Provincetown Center for Coastal Studies, Vineyard Energy Project, Woods Hole Research Center, and the Hyannis offices of Rep. William Delahunt and the MTC.

They were joined by individuals from other agencies, organizations, institutions, and businesses who had attended the EPRI-MTC project briefing. A complete roster of participants is presented in Attachment A. The meeting was facilitated by Chris Powicki off a presentation available as Attachment B.

Points of Concurrence on Ocean Energy

The meeting began with a review of the baseline points of concurrence agreed upon through previous “Beyond Cape Wind” community planning activities, including an agreement to participate in discussions treating a certain proposed development as “the project that must not be named.” Discussion was initiated around three proposed points of agreement among Cape & Islands stakeholders regarding an ocean energy demonstration project within the region; participants had been asked to review these in advance of the brainstorming session.

The resultant dialogue reflected consensus among attendees that ocean energy resources—wind, wave, and tidal—are critical to the energy future for the Cape & Islands and a promising route toward energy independence. For a demonstration project, the following three points of concurrence were established:

- We want to explore directions and control future decisions regarding ocean energy development.
- We want to learn how to harness renewable resources in ways that protect and enhance the region’s economy and ecosystems.
- We want to maximize local benefits and minimize adverse impacts from near-term technology demonstration and testing as well as large-scale ocean energy development.

Brainstorming Summary

The remainder of the discussion explored practical issues relating to the planning of a Cape & Islands ocean energy demonstration project designed to accelerate progress toward large-scale, community-controlled renewables development.

Participants addressed the commercial readiness of shallow-water wind turbines and the R&D status of emerging deepwater wind, wave, and tidal current technologies, and they reviewed the focus and status of the Offshore Wind Energy Collaborative (OWEC) involving MTC, GE, and the US Department of Energy (DOE). Concepts for near-shore demonstration projects and test facilities were discussed. Needs for public involvement were stressed, goals relating to energy independence were advocated, and opportunities associated with renewable energy cooperatives were highlighted. Applicable policy frameworks and ongoing processes at the regional, state, and federal levels were described.

Much of the discussion focused on the intricate and interacting economic, environmental, and social issues raised by ocean energy development. Participants indicated that tradeoffs must be addressed at individual, community, and societal levels in order to truly address issues such as energy security and climate change. Obstacles to progress were discussed, including the reality of Cape & Islands stakeholders reacting to events seemingly outside their control rather than working together, toward common goals, within regional, state, and federal policy frameworks.

In considering the possibility of an ocean energy demonstration project, stakeholders identified the following as keys to progress:

- We need to know which ocean energy technologies to demonstrate, test, and deploy so we can learn where and how to apply them at a larger scale.
- We need to examine the potential upsides of demonstrations, test facilities, and large projects.
- We need to assess benefits and adverse impacts of individual technologies and development options over varying geographic scales and timeframes.
- We need to engage in state and federal zoning processes for ocean energy R&D.
- We need to empower the public to take ownership through education, capacity building, grassroots activism, and concerted action.

Discussions highlight the need for a proactive Cape & Islands response to possible challenges and opportunities relating to ocean energy development. They also emphasize the importance of coordinated responses at the local, regional, state, and federal levels.

Next Steps

Discussions at the meeting suggest a broad range of outreach, education, and R&D activities involving Cape & Islands stakeholders, as well as officials and agencies at all levels. Two complementary tracks for common, coordinated, and collaborative action are suggested:

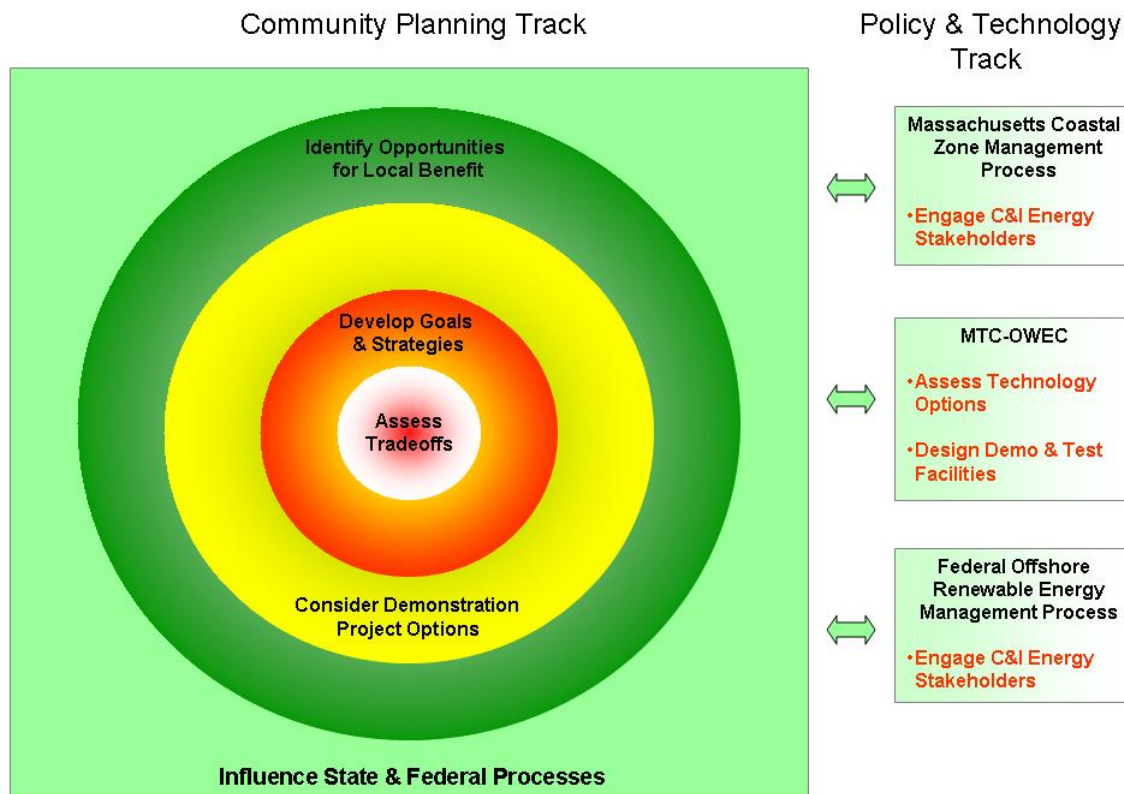
1. **Community Planning Track:** Engage the public, stakeholder groups, and communities in planning processes to
 - a) Assess knowns and unknowns relating to present-day energy options and ocean energy alternatives.
 - b) Develop regional and local goals and strategies relating to efficiency, renewables, economic development, emissions reduction, and energy independence.
 - c) Examine demonstration, test center, and project development opportunities and host community interest in and around the region.
 - d) Identify opportunities for localized benefit through funding partnerships, renewable energy cooperatives, institutional collaborations, etc.
 - e) Provide constructive and organized input to state and federal processes involving coastal zone management and offshore energy development
2. **Policy & Technology Track:** Initiate outreach and research to
 - a) Involve stakeholders in the development of state and federal policy for offshore renewables.
 - b) Identify the wind, wave, tidal, hydrogen, and/or hybrid systems to be demonstrated as part of a Cape & Islands technology strategy aimed at energy independence.
 - c) Develop conceptual designs for demonstration projects and testing facilities and identify potential public-private funding partners and siting opportunities.

The diagram below displays these activities and key linkages between the two tracks. In March 2006, CIREC submitted a grant to MTC that directly addresses “Track 1a: Assess Tradeoffs” and “Track 1b: Develop Goals & Strategies,” as well as proposes creation of planning frameworks applicable to the other Track 1 activities. In particular, the proposal includes tasks to engage all stakeholders in weighing the tradeoffs associated with present-day energy supply and use practices and in developing consensus long-term visions and regional goals relating to renewable energy supply and use for 2010, 2020, 2030, and 2050. An MTC decision on the grant is expected at the beginning of July.

“Track 1c: Consider Demonstration Project Options” and “Track 1d: Identify Opportunities for Local Benefit” would best be conducted in concert with “Track 2b: Assess Technology Options” and “Task 2c: Design Demonstration & Test Facilities.” These Track 2 activities would appropriately be pursued through MTC and OWEC—in conjunction with DOE and possibly EPRI—consistent with OWEC’s goal of harnessing offshore renewables in the northeastern United States.

“Track 1e: Influence State & Federal Processes” would best be conducted in parallel with all other activities and in conjunction with “Track 2a: Engage Stakeholders.” This would integrate Cape & Islands planning processes with ongoing processes relating to Massachusetts coastal zone management and federal offshore energy zoning, regulation, and permitting.

As a near-term next step, a high-level planning meeting is suggested to bring select stakeholders together with state and federal agencies and elected officials to begin developing formalized ties between Cape & Islands planning processes and OWEC, state, and federal processes. This meeting would focus attention on the funding, linkage, and outreach issues required to get a community-based response to ocean energy development off the ground and in synchronicity with government initiatives.



Attachment A—Attendees

Roger Bedard, Electric Power Research Institute

Peter Borelli, Provincetown Center for Coastal Studies

Dwayne Breger, Massachusetts Division of Energy Resources

Peter Cabana, Cape Light Compact

Fara Courtney, Good Harbor Consulting

Dan Dray, Cape Cod Economic Development Council

Mark Forest, on behalf of Rep. William Delahunt

Alexander Gorlov, Northeastern University/GCK Technologies

Bill Grafton, Woods Hole Group

Dick Greeley, GCK Technologies

Joe Hackler, Woods Hole Research Center

Chuck Kleekamp, Clean Power Now

Dick Michaud, US Department of Energy

Sue Nickerson, Alliance to Protect Nantucket Sound

Chris Powicki, Cape & Islands Renewable Energy Collaborative

Bill Veno, Martha's Vineyard Commission

Kate Warner, Vineyard Energy Project

Greg Watson, Massachusetts Technology Collaborative

Tana Watt, Cape Cod Commission

Attachment B—Presentation

Available in a separate file.