The Maine Offshore Energy Demonstration Area Siting Initiative

Draft Site Selection Methodology

Maine Department of Conservation Maine State Planning Office

October 2009

Phase 1.

- A. Planning Area identification process: The Department of Conservation (DOC) and the State Planning Office (SPO) used best available information on wind resources in the Gulf of Maine, bathymetry of waters of the State (to 3 nautical miles offshore from the mainland and coastal islands), and seafloor obstructions (ship wrecks, formally designated shipping lanes, disposal sites, etc.) to identify seven large Planning Areas in state waters potentially suitable for testing deep-water wind turbine technology.
- B. Feedback on Planning Areas: DOC and SPO held more than a dozen scoping meetings in August and September with fishermen, community leaders, and environmental organizations in order to receive comments and concerns on potential use and resource impacts from ocean energy testing activities in these locations. For additional feedback, DOC and SPO also held five regional public forums in September with audiences ranging from 40 to 80 participants. Participants in all meetings were encouraged to mark up the large-scale maps of each area with their concerns or specific information on intensity of use in a particular area. We received numerous annotated maps back from meeting participants, which were included in the analysis process.
- C. DOC and SPO consulted with the Department of Environmental Protection, the Public Utilities Commission, the Department of Inland Fisheries and Wildlife, the Maine Land Use Regulation Commission, the Department of Marine Resources, the Historic Preservation Commission, the University of Maine, and a number of federal agencies regarding a broad range of ecological, environmental and other considerations in evaluating the planning areas.

Phase 2.

- A. Map analysis. Information collected at scoping meetings and public meetings were located using a one square mile grid system and ranked indicating the relative level of an activity or a concern in that particular location. These datasets were all analyzed together with the map information listed in B to identify which grid cells in each Planning Area, if any, would minimize the potential impact of ocean energy testing on other uses and resources.
- B. Other mapped resource information: In the analysis, we used mapped information on the following resources:

Ecological concerns: whale activity, seal activity, bird migration, bird foraging, endangered/threatened/rare birds, worm habitat, molluscan habitat, and eelgrass; *Geology*: bottom type;

Obstructions: shipwrecks, marine obstructions, military zones, and marine transportation; *Infrastructure*: power lines, undersea cables, substations, deepwater ports, and GOMOOS buoys;

Human uses of the marine environment: fishing activity surveys, fishing complexity, shrimp tows, canneries, lobster pounds, fishing weirs, recreational boating, and archaeology;

Viewshed: visual assessment requirement, and proximity to a national park.

C. Map ranking. In this step staff from DOC and SPO tabulated the information gathered from existing data sources (see B above), from written and oral comments from other resource agencies, interested parties, and from meetings. For each factor, we used our best professional judgment to rank concern as low, medium or high, and considered qualifiers related to the limitations of available data. Based on the level of concern and qualifiers, we used our best professional judgment to assign a numerical ranking to each factor, from 1 (lowest concern) to 5 (highest concern). We subsequently summed the ranks for each factor, and calculated an average rank for each site by dividing the sum of ranks by the number of factors, giving equal weight to all factors. The scores for all sites ranged from a low (favorable) value of 1.3 to a high (unfavorable) of 2.1. For the purposes of selecting draft demonstration sites, we selected all sites with an average ranking of less than 2.0.