



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
408 Atlantic Avenue – Room 142
Boston, Massachusetts 02210-3334



June 16, 2006

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Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

RE: COMMENTS
Kennebec Tidal Energy Hydroelectric Project, Project No. 12666-000
Application for Preliminary Permit
Kennebec River, Sagadahoc County, Maine

Dear Secretary Salas:

This responds to the Federal Energy Regulatory Commission's (Commission) public notice, dated May 2, 2006, regarding the application for preliminary permit by the Maine Tidal Energy Company for the Kennebec Tidal Energy Hydroelectric Project, located in the Kennebec River in Sagadahoc County, Maine.

The Department has reviewed the notice and does not object to the issuance of the proposed preliminary permit. However, we note that the proposed project will utilize new and untested technology and the project is proposed in an area that contains significant natural resources. As such, the proposed project could have significant adverse impacts on fish and other aquatic resources.

GENERAL

The applicant proposes to install up to 50 Tidal In Stream Energy Conversion (TISEC) devices in one or more clusters in the Kennebec River, between Chops Point and West Chops Point in Sagadahoc County, Maine. Each TISEC device will consist of rotating propeller blades approximately 20 to 50 feet in diameter, an integrated generator capable of generating 0.5 to 2.0 MW, anchoring systems and a transmission line. The exact design of the devices is still being developed. The project will have no dams, diversions or reservoirs.

The project is proposed in three phases. The preliminary permit application states that the First Phase of the project would be completed during the three-year period of the permit. The First Phase includes demonstration of a pilot TISEC device, including installation of equipment for production and transmission of power. This initial phase of the project could have adverse impacts and will need to be properly planned and designed to minimize potential harm to fish and wildlife resources, and also must be fully evaluated for implications for larger-scale installations.

The applicant proposes a series of studies to assess the possible locations for the TISEC devices based on geological and geophysical characteristics, tidal currents, and cultural and biological resources. As discussed below, the applicant will need to coordinate with several State and Federal natural resource agencies, including bureaus of the Department of the Interior.

Fish and Wildlife Resources

The lower Kennebec River and estuary support fish and wildlife populations having ecological, recreational, and commercial importance. The proposed tidal power project would be located in a section of the Kennebec River that is regularly used by resident and migratory fish. These include federally-listed endangered or threatened species (Gulf of Maine Distinct Population of Atlantic salmon, shortnose sturgeon, bald eagle). Recreational and/or commercial fisheries also exist for several other migratory species found in the project area, including striped bass, alewife, blueback herring, American eel, and rainbow smelt.

The Kennebec River is the second largest watershed in Maine, and has a rich history of commercial and recreational fisheries, particularly in the lower portion of the watershed. Those fisheries were severely reduced in the 19th and 20th centuries due to the construction of dams, pollution and over-fishing. As a result, numerous conservation partners, including the U.S. Fish and Wildlife Service (USFWS), are currently working with hydropower interests to restore migratory fish runs in the watershed. In May 1998, the USFWS joined with others in signing the Lower Kennebec River Comprehensive Hydropower Settlement Accord, which led to the removal of Edwards Dam in 1999, and provides for construction of new fish passage facilities and other fish restoration measures in the watershed. Restoration and management plans for migratory fish are further described in the State of Maine's comprehensive *Kennebec River Resource Management Plan: Balancing Hydropower Generation and Other Uses*, issued in 1993. Broadly stated, the overall goal of the Settlement Accord and underlying Management Plan is to restore anadromous and catadromous fish to their historic range in the watershed, directly benefiting eight species of migratory fish. Since the Edwards Dam was removed, new fish passage facilities have been installed in upstream dams resulting in the growth of migratory fish runs.

The Kennebec River flows through Merrymeeting Bay before reaching the Gulf of Maine. Merrymeeting Bay is a unique 9,000-acre ecosystem, formed by the confluence of the Kennebec and five other rivers. A natural restriction in the lower Kennebec River, known as The Chops, forms the outlet of Merrymeeting Bay, and helps determine upstream tidal conditions. Although tidal conditions exist in Merrymeeting Bay, much of it is non-saline, due to the restrictive nature of The Chops. This allows for the extensive development of highly productive freshwater

wetlands in Merrymeeting Bay, which provide habitat and food for a variety of fish and wildlife resources. Merrymeeting Bay contains spawning and rearing habitat for shortnose and Atlantic sturgeon, striped bass, American shad, and rainbow smelt. The Bay also provides habitat for bald eagles, ospreys, and numerous species of waterfowl, wading birds and shorebirds. The USFWS has joined with the State of Maine and other partners to protect valuable fish and wildlife habitats in and around Merrymeeting Bay.

The proposed Kennebec Tidal Energy Project could have a direct bearing on the success of the fish restoration efforts on the Kennebec and other rivers flowing into Merrymeeting Bay. While the tidal project does not involve new dams or reservoirs, it would be located in a section of river (The Chops) that virtually all species of migratory fish must pass through during migration to or from the Gulf of Maine. In addition, as described in the application, the proposed TISEC devices are to have 20- to 50-foot-wide propeller blades in waters that are 25 to 100 feet deep. As such, the proposed turbines could nearly occupy the entire water column in some places, and affect benthic as well as surface-oriented species. Given that the tidal power technologies that are described in the preliminary permit application are largely untested and unknown, there could be risks to the same fishery resources that are targeted for restoration upstream of the project site. The Commission must carefully scrutinize whether the tidal project would be consistent with the comprehensive fish restoration plans and activities that are currently underway.

Because of the potential for extensive impacts to aquatic resources of the Kennebec River and Merrymeeting Bay, various in-depth studies will be needed. The permit application proposes evaluations of: (a) fish mortality and injury prevention measures; (b) construction impacts on aquatic organisms, historical and cultural resources, recreation, navigation and commercial and recreational fishing; (c) impacts of TISEC operation on aquatic organisms; and (d) impacts of TISEC devices and transmission lines on surrounding wetlands and riparian wildlife. The studies should also address whether the project would disrupt or significantly alter the existing energy flux between Merrymeeting Bay and the Gulf of Maine as a result of installing TISEC devices in The Chops.

State and federal fish and wildlife agencies should be consulted early in the planning process for their advice on impact assessment studies. After the applicant has conducted the necessary studies, the resource agencies should be consulted again for their recommendations on measures needed to mitigate adverse impacts and compensate for unavoidable losses to fish and wildlife resources. The address for our Fish and Wildlife Service Office is 1168 Main Street, Old Town, Maine 04468.

Cultural Resources

The State Historic Preservation Officer (SHPO) should be consulted concerning the project to ensure compliance by the applicant and the Commission with all preservation legislation. Consideration of project effects on any existing or potential cultural resources, should take place as part of the environmental evaluation during the preliminary permit period. For Maine, the SHPO is Earl G. Shettleworth, Jr., Maine Historic Preservation Commission, 55 Capitol Street, Station 65, Augusta, Maine 04333-0065 (207-287-2132). We also suggest that Article 7 in Order No. 54 Final Rule, FERC, October 22, 1979, be included in the preliminary permit.

Magalie R. Salas, Secretary

4

Recreational Resources

The project is located within several adjoining Nationwide Rivers Inventory (NRI) segments: Merrymeeting Bay to Bath, Merrymeeting Bay to South Gardiner, and Bay Point to Bath. These segments have numerous critical values for which the segments are listed. The applicant and Commission staff can obtain more information on NRI and the specific segments in the vicinity of the proposed project by visiting the National Park Service website:

<http://www.nps.gov/ncrc/programs/rtca/nri/states/me.html>

In addition to evaluating NRI related issues, the applicant should undertake an assessment of the recreation potential of the project during the preliminary permit period in consultation with the State Liaison Officer (SLO), county officials, and local community groups and agencies concerned with providing opportunities for public recreation. The assessment should include consideration of recreation needs and priorities identified in the Statewide Comprehensive Outdoor Recreation Plan. The SLO for Maine can be contacted at the Maine Bureau of Parks and Lands, 22 State House Station, 18 Elkins Lane (AMHI Campus), Augusta, Maine 04333-0022 (207-287-3821).

Thank you for the opportunity to comment on this application. Please contact me at (617) 223-8565 if I can be of further assistance.

Sincerely,



Andrew L. Raddant /s/
Regional Environmental Officer

Submission Contents

U.S. DOI comments on P-12666, Kennebec Tidal Energy Hydro. Project, Applic. for Preliminary Permit, ME
KennebecTidalPP-DOI.pdf..... 1-4