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**1.13.09**

### **SUPPLEMENTAL INFORMATION: OVERVIEW OF REGULATORY FRAMEWORK APPLICABLE TO DEVELOPMENT OF RENEWABLE OCEAN ENERGY RESOURCES<sup>1</sup>**

This document provides a general overview<sup>2</sup> of the main state, federal, and local land use and environmental approvals that may be required to construct and operate a commercial wind power or tidal power generation facility in, on, or over state-owned submerged lands in Maine's coastal waters<sup>3</sup>, or in, on, or over adjoining federal Outer Continental Shelf ("OCS") lands in federal waters.<sup>4</sup>

Permitting requirements vary depending upon the specific project location and scale as well as other project-specific factors.<sup>5</sup> Consultation with pertinent agencies is recommended as necessary to confirm the approval requirements, review procedures, and related information requirements for a specific project.

#### **Part One: Wind Power Development in the Maine's Coastal Waters<sup>6</sup>**

##### **I. State Wind Power Policy**

The Maine Wind Energy Act ("WEA"), 35-A M.R.S.A. § 3401, *et seq.*, articulates Maine's wind energy policy. WEA encourages the attraction and development of appropriately-sited wind energy production and related business opportunities in the state.

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<sup>1</sup> Requirements regarding oil and gas exploration and development are not addressed. Due to geological conditions that make the presence of commercially significant oil or natural gas resources in Maine's coastal area improbable, this memo does not address state requirements applicable to hydrocarbon exploration on state-owned submerged lands. Staff anticipates providing additional information on the regulatory framework applicable to oil and gas development on the OCS at a later date.

<sup>2</sup> The following presentation, which provides a more general, broad overview of ocean energy regulation in the United States, may also be of interest -

[http://www.globalmarinerenewable.com/presentations/GMREC\\_ExecOverview\\_Pres03\\_Elefant\\_17Apr2008.pdf](http://www.globalmarinerenewable.com/presentations/GMREC_ExecOverview_Pres03_Elefant_17Apr2008.pdf)

<sup>3</sup> As used here, "Maine's coastal waters" refers to marine waters between the mean low water line and the three-mile limit of state ownership. "Submerged lands" refers to the lands beneath Maine's coastal waters.

<sup>4</sup> As used here, "federal waters" refers to marine waters seaward of the three-mile limit to the limit of the United States' Exclusive Economic Zone (200-mile limit and Hague line). "OCS lands" refers to the lands beneath federal waters.

<sup>5</sup> While this document focuses on requirements for grid-scale wind projects or tidal power projects generating electricity for distribution on the grid, the applicability of many of the requirements discussed is not determined by a project's size, scale, or commercial purpose *per se*. For example, ACOE staff advises that it is probable any ocean energy development initiative, regardless of its location or size, is likely to require federal permitting (at least from the ACOE). Many state requirements may also apply to smaller scale projects.

<sup>6</sup> Unless otherwise noted, this term refers to grid-scale wind energy development that occurs in, over, or over Maine's coastal waters. Federal requirements and utility regulation applicable throughout this area are discussed separately.

## **DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

### **1.13.09**

As amended in 2007, WEA establishes the following wind energy goals: at least 2,000 megawatts of installed capacity by 2015; and at least 3,000 megawatts of installed capacity by 2020, 300 megawatts of which, the Legislature finds, there is a potential to produce from generation facilities located in Maine's coastal or proximate federal waters. These goals are based on analyses presented to and resulting recommendations of Governor Baldacci's 2007 Wind Energy Development Task Force.

## **II. License and Permit Requirements**

### **A. Projects Located in Organized Areas of the State**

DEP is the lead state licensing and permitting agency for projects located in the organized (within a municipal boundary) areas of the State, while LURC is the lead permit agency for projects located within the State's unorganized areas. As described below, DEP and LURC both have standards for consideration of a project's potential effects on wildlife, habitat, wetlands, scenic, and other natural resources values in making a permitting decision, although there are some differences in the agencies' specific review criteria and standards and decision-making procedures. As noted below, LURC has planning and zoning responsibilities (akin to those of municipalities in the State's organized areas) in addition to its environmental review responsibilities.

Note: Since DEP's jurisdiction is within the organized areas of the state (i.e., within the boundaries of a municipality), a proposed project's location relative to municipal boundaries extending onto state submerged lands may determine whether a project is subject to DEP or LURC jurisdiction. In some cases, the location and extent of these municipal boundaries may not be clear.

Except as otherwise noted, the following are descriptions of potentially applicable state, federal, and local license and permit requirements for offshore "grid-scale wind energy development"<sup>7</sup> within the organized areas of the State.

#### **1. State requirements**

- (a) Site Location of Development Act ("Site Law")

<http://www.maine.gov/dep/blwq/docstand/sitelawpage.htm>

The Site Location of Development Law (the "Site Law"), 38 M.R.S.A. §§ 481 *et seq.*, regulates "any development of state or regional significance that may substantially affect the environment." 38 M.R.S.A. §483-A. A "development" includes, among other things, certain larger structures and projects that occupy "a land or water area in excess of

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<sup>7</sup> As used here, this term means a wind energy development that is of a size that would qualify as a development of state or regional significance under the Site Law (see Title 38, section 482, subsection 2, paragraph A or paragraph C). (Wind Energy Act definition). More generally, this term may be understood to mean a large scale, investor-owned commercial wind energy development producing power for distribution on the interstate grid.

## DRAFT; NOT AGENCY OR ADMINISTRATION POLICY

### 1.13.09

20 acres." *Id.* at §482(2) (definitions). To date, development of land-based, commercial-scale wind power projects have typically triggered Site Law review under the 20-acre size criterion. In addition, construction of a new transmission line associated with the wind turbines may by itself trigger Site Law review, particularly if it involves construction of more than a few miles of 115 kV transmission line in a new corridor.

Note: DEP has not yet reviewed an application for a water-based, offshore wind development under the Site Law. DEP has indicated that it is currently reviewing the manner in which it would calculate the project-area for purposes of determining Site Law jurisdiction.

Enacted 35 years ago, the Site Law provides authority and flexibility to address the range of potential site-specific impacts from significant developments. Such impacts typically vary from one development to another and from one site to another, even for the same type of development. The Site Law's approval standards include provisions addressing financial capacity, "no adverse effect on the natural environment", soil types, stormwater management and erosion control, groundwater, infrastructure, and flooding. The "no adverse effect on the natural environment" standard requires a developer to make "adequate provision for fitting the development harmoniously into the existing natural environment" and to show "that the development will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipality or in neighboring municipalities." *See* 38 M.R.S.A. §484.

PL 2007 c. 661, which enacted recommendations of the Governor's Wind Energy Development Task Force, made changes to the Site Law specific to DEP's review of grid-scale wind energy development that overall are aimed at facilitating development in appropriate places in the state. The Act establishes an "expedited area" (all of DEP jurisdiction) (see below re: LURC jurisdiction) within which grid-scale wind energy development-specific procedures and standards, including the following principal ones, apply:

- Permit decision by DEP (the Board of Environmental Protection (BEP) does not have original jurisdiction but may review DEP's decision on the record);
- Judicial review of DEP decision by the law court (no Superior Court review);
- New scenic impact assessment method and standard limiting consideration to views from statutorily-defined scenic resources of state or national significance for a distance of up to eight miles<sup>8</sup>
- Clarification that the above-noted "fits harmoniously" standard does not apply to grid-scale wind energy development regarding scenic impact issues; and
- New standards to address shadow flicker, safety setbacks, and provision of significant tangible benefits

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<sup>8</sup> This same scenic standard also applies to grid-scale wind energy development subject to DEP review under the Natural Resources Protection Act.

## DRAFT; NOT AGENCY OR ADMINISTRATION POLICY

### 1.13.09

DEP rules, *see* 06-096 CMR 371 – 380, implement the Site Law's statutory criteria. Chapter 375 of DEP's rules implements the “no adverse effect on the natural environment” standard and includes sections addressing air quality, climate, natural drainage ways, runoff/infiltration relationships, erosion and sedimentation control, surface water quality, groundwater quality and quantity, buffer strips, control of noise, preservation of historic sites; preservation of unusual natural areas, access to direct sunlight, scenic character, and protection of wildlife and fisheries (stormwater rules are addressed in a separate chapter). Examples of rules applicable to issues that may arise in connection with wind power development include:

- Ch. 375(10) Control of Noise (17 pgs). Specific applicable noise limits depend upon a variety of factors. For example, in regards to sound from routine operation, requirements vary depending upon factors such as the existence of protected locations; zoning (or comprehensive plan) providing for commercial, transportation, or industrial uses; time of day; daytime and nighttime pre-development hourly sound levels; demonstrated hourly sound levels resulting from routine operation of the development; observed levels of tonal sounds; and the possibility of short duration repetitive sound. Each of these criteria is addressed in detail in the rules. Standards also address areas such as noise associated with construction and maintenance and measurement procedures.
- Ch. 375(15) Protection of Wildlife and Fisheries. DEP may consider all relevant evidence concerning whether a developer has made adequate provision for the protection of wildlife and fisheries. The Site Law application form advises applicants to contact DIF&W for assistance in determining potential impacts, and to submit a plan to minimize the development’s detrimental effect.

<http://www.maine.gov/sos/cec/rules/06/096/096c375.doc> (DEP Rules, ch. 375)

Note: As outlined above, PL 2007 c. 661 amended the Site Law to establish a new approach and standard for scenic assessment. Accordingly, DEP's rules chapter 375(14) (No Unreasonable Impact on Scenic Character) does not apply to grid-scale wind energy development. SPO and DOC are charged with adopting rules to implement specific elements of the law's definition of "scenic resource of state or national significance."

Pre-application and pre-submission meetings clarify requirements as they apply to project-specific situations. The comprehensive Site Law application addresses each requirement and describes needed submissions.

DEP has developed guidance (focused on land-based development) regarding application materials and its review of grid-scale energy development.

- (b) Natural Resources Protection Act (“NRPA”)

<http://www.maine.gov/dep/blwq/docstand/nrpapage.htm>

## DRAFT; NOT AGENCY OR ADMINISTRATION POLICY

### 1.13.09

The Natural Resources Protection Act (“NRPA”), 38 M.R.S.A. §§ 480-A, *et seq.*, regulates certain activities in, on, or over any protected natural resource or adjacent to certain protected natural resources. The NRPA was developed from prior resource-specific laws focused on coastal wetlands, streams, and great ponds, for example, which were consolidated into a consistent and overarching statute aimed at efficiently and effectively addressing potential effects on range of protected resources and their interconnections.

There are several aspects of an ocean-based wind power project that may require NRPA approval, including those regarding protection of wetlands (definition of coastal wetlands includes submerged lands under marine waters) and or "significant wildlife habitat." Shore-based facilities, such as substation or power line, may also trigger review under the NRPA. Regulated activities subject to the NRPA must either qualify for and be approved in connection with the permit-by-rule program or be the subject of an individual permit.

To obtain an individual permit, the applicant must demonstrate that the proposed activity meets standards relating to such matters as existing uses, soil erosion, wildlife habitat and fisheries, natural water flow, water quality, flooding, sand supply, outstanding river segments, and dredging. *See* 38 M.R.S.A. § 480-D. The “existing uses” statutory standard, for example, requires that the activity not "unreasonably interfere" with scenic, aesthetic, recreational or navigational uses. The “harm to habitats; fisheries” standard requires in part that the activity not "unreasonably harm" any "significant wildlife habitat", freshwater wetland habitat, threatened or endangered plant habitat, freshwater wetland plant habitat, aquatic habitat, travel corridor, freshwater or estuarine or marine fisheries or other aquatic life.

The NRPA's general "unreasonable" impact standard is implemented by DEP rules, of which the most potentially applicable to wind power development projects include:

- Ch. 305, Permit by Rule. Provides a simplified application process for certain minor activities.
- Ch. 310, Wetlands and Waterbodies Protection. Provides requirements related to protected wetland and water resources, including provisions requiring an alternatives analysis and other steps aimed at avoiding, minimizing and at times mitigating adverse effect to wetlands.
- Ch. 335. Significant Wildlife Habitat. Under the NRPA and these rules, "significant wildlife habitat" is not a qualitative term but an essentially geographic one which means -

"The following areas to the extent that they have been mapped by the Department of Inland Fisheries and Wildlife or are within any other protected natural resource: habitat, as defined by the Department of Inland Fisheries

**DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

**1.13.09**

and Wildlife, for species appearing on the official state or federal list of endangered or threatened animal species; high and moderate value deer wintering areas and travel corridors as defined by the Department of Inland Fisheries and Wildlife; seabird nesting islands as defined by the Department of Inland Fisheries and Wildlife; and critical spawning and nursery areas for Atlantic salmon as defined by the Atlantic Salmon Commission; and

- (1) Significant vernal pool habitat;
- (2) High and moderate value waterfowl and wading bird habitat, including nesting and feeding areas; and
- (3) Shorebird nesting, feeding and staging areas."

38 M.R.S.A. §480-B(10).

These rules provide requirements aimed ensuring a project subject to the NRPA has no "unreasonable impact" on "significant wildlife habitat" or the "subject wildlife" ("wildlife species for which an area has been designated as significant wildlife habitat"). The rules require avoidance through demonstration that there is no less damaging practicable alternative, minimization and at times mitigation of unavoidable adverse effects. 38 M.R.S.A. §480-B.

<http://www.maine.gov/sos/cec/rules/06/096/096c335.doc>

Note: Pursuant to an amendment made by PL 2007 c. 661, DEP now uses the same scenic assessment approach in reviewing grid-scale wind energy development subject to the NRPA that it uses for Site Law projects. (DEP rules chapter 315, Assessing and Mitigating Impacts to Scenic and Aesthetic Uses, does not apply.)

(c) Erosion and Sedimentation Control Law

Maine's Erosion and Sedimentation Control Law, 38 M.R.S.A. § 420-C, contains basic erosion control requirements that apply within organized areas of the State. This law has potential applicability in relation to land-based aspects of an offshore wind energy development. No permit is required, and the standards are typically most relevant for small projects. The requirements are consistent with, but generally more basic than, erosion control requirement related to permitting statutes such as the Site Law. The law also has provisions requiring that certain chronic erosion problems be addressed, and these are phased in over time.

<http://www.maine.gov/dep/blwq/docstand/stormwater/erosion.htm>

(d) Stormwater Program

- (1) *Stormwater Management Permit*

**DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

**1.13.09**

The requirements of Maine’s Stormwater Management Law, 38 M.R.S.A. § 420-D, are addressed as part of the Site Law permitting process. As stated in the introduction to DEP’s implementing rules (DEP rules ch. 500), “many pollutants, such as nutrients and metals, attach to fine particles of soil from throughout the watershed. Soil and attached pollutants are carried in the stormwater down to a waterbody or wetland. A project is required to meet appropriate standards to prevent and control the release of pollutants to waterbodies, wetlands, and groundwater, and reduce impacts associated with increases and changes in flow.”

Note: DEP has indicated that it is currently evaluating the applicability of this law to offshore wind power-related facilities.

<http://www.maine.gov/dep/blwq/docstand/stormwater/storm.htm>

(2) *Waste Discharge Permit (Maine Construction General Permit)*

Storm water associated with construction activity is separately regulated under state and federal law. Maine’s Waste Discharge Law provides that “no person may directly or indirectly discharge or cause to be discharged any pollutant without first obtaining a license therefore from [DEP].” 38 M.R.S.A. §413(1). Maine has been delegated authority under the federal National Pollutant Discharge Elimination System (NPDES) program and, therefore, storm water associated with construction activities is now subject to permitting under Maine’s waste discharge program. Maine has consolidated the application process for the Maine construction general permit (MCGP), the Stormwater Management Law and Site Law, however, and application requirements for the MCGP, Stormwater Management Law, and Site Law are considered concurrently.

See note above regarding the stormwater law.

<http://www.maine.gov/dep/blwq/docstand/stormwater/MEPDES.htm>

(e) Maine Endangered Species Act

(1) DIFW-managed species

The Maine Endangered Species Act prohibits the taking of an endangered or threatened species. 12 M.R.S.A. §§ 12802, *et seq.* Department of Inland Fisheries and Wildlife (“DIFW”) advises that MESA’s provisions regarding “take” apply independently of any permit requirement. The term “take” is broadly defined to include habitat alteration as well as more direct harm to the protected species. The law provides for an “incidental take” permit for activities, otherwise permitted, that may result in an incidental taking. *Id.*, at § 12808(3)(A). As part of its review of a project under the Site Law and NRPA, DEP considers DIFW’s recommendations, as the state agency with

**DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

**1.13.09**

principal oversight for listed endangered or threatened species, principally inland but also including certain seabirds and shorebirds, that are subject to DIFW's jurisdiction.

(2) DMR-managed species

The Department of Marine Resources ("DMR") has management responsibility for species listed on the State's marine threatened and endangered species list. 12 MRSA §6971. By definition, each of these species is also listed as threatened or endangered under the federal Endangered Species Act. *See* 12 MRSA §§6973 and 6975. MESA's state "take" provisions described in subparagraph (1), above, do not apply to these species on the marine list. The federal ESA's "take" and related "incidental take" provisions do cover these state-listed species. As part of its review of a project under the Site Law and NRPA, DEP seeks input from and considers the recommendations of DMR regarding the marine listed species under its management authority.

[http://www.maine.gov/ifw/wildlife/species/endangered\\_species/es\\_act\\_part13.htm](http://www.maine.gov/ifw/wildlife/species/endangered_species/es_act_part13.htm) (inland)

<http://www.mainelegislature.org/legis/statutes/12/title12ch631sec0.html> (marine)

(f) Maine Historic Preservation Commission

The Maine Historic Preservation Commission ("MHPC") is responsible for establishing policy to encourage and stimulate public interest in historic, architectural and architectural heritage of the State, and to advise the State Historic Preservation Officer ("SHPO") on facilitating liaisons among government agencies and organizations interested in historic preservation, and to implement the National Historic Preservation Act. 27 M.R.S.A. §§ 501-503. In addition to reviewing the impacts of federal projects on resources listed or eligible for listing in the National Register of Historic Places, the Maine Historic Preservation Officer advises state agencies responsible for permitting projects that may impact historic or cultural resources, including potentially archeological resources that are beneath coastal waters. *See, e.g.*, DEP rules ch. 375(11) (review under the Site Law). If, for example, a project is proposed in an archaeologically sensitive area, the Commission may seek information, such as an archeological survey, to determine whether the project is likely to disturb archaeological sites. If the MHPC determines that a project will result in an adverse effect to a historic property, it will consult with the project proponent on ways to avoid, minimize or mitigate such effects.

See below, re: the SHPO's role under the National Environmental Policy Act ("NEPA").

<http://www.maine.gov/mhpc/>

(g) Clean Water Act - 401 Water Quality Certification

Applicants applying for a federal license or permit that may result in a discharge to navigable waters of the United States must submit a state certification to the federal licensing authority that any discharge will comply with state water quality standards. Typically, DEP issues the 401 Water Quality Certification as part of the Site Law and

## DRAFT; NOT AGENCY OR ADMINISTRATION POLICY

### 1.13.09

NRPA permitting process. Federal permitting under Section 10 of the Rivers and Harbors Act (regulating placement of structures in navigable waters; see below) is one potential trigger of DEP's 401 certification authority.

#### (h) Submerged lands lease

Near-shore projects located on state-owned submerged lands (from mean low water to the three-mile limit) require a state lease or easement from the Department of Conservation's Bureau of Public Lands ("BPL"). A lease or easement would be required for occupancy of state-owned submerged lands for placement of a wind tower and turbine and/or related transmission lines. Among other things, rules governing BPL's leasing decision require that the agency consider a proposal's potential effects on, and potentially require compensation for loss of, customary or traditional public access ways or public trust rights in, on, or over state-owned submerged lands.

Note: BPL has indicated that, under its current authority, it intends to consider lease fees, compensation, and related matters regarding offshore wind energy development on a case by case basis. BPL has indicated that it is considering proposed legislation to further clarify this authority.

<http://www.maine.gov/doc/parks/programs/sublands/index.html>

See also [http://janus.state.me.us/legis/ros/lom/LOM122nd/4Pub101-150/Pub101-150-42.htm#P668\\_108983](http://janus.state.me.us/legis/ros/lom/LOM122nd/4Pub101-150/Pub101-150-42.htm#P668_108983) (rulemaking and interim authority regarding a "large scale project")

#### (i) Coastal Zone Management Act ("CZMA") - federal consistency review

The federal Coastal Zone Management Act, 16 U.S.C. § 1451, *et seq.*, provides a state, such as Maine, with a federally-approved coastal management program authorities to review federal actions (federal agency activities, permit leasing decisions, or funding) for consistency with the enforceable policies of its approved coastal zone management program. In Maine, the State Planning Office ("SPO") serves as the point of contact and coordinator for this federal consistency review process. Land use and environmental laws administered by DEP and LURC serve as Maine's enforceable policies for CZMA purposes and to the extent practicable the State implements its federal consistency review authority through pertinent license and permit reviews under these core laws, with DEP and LURC decisions providing the findings of fact and conclusions on which the state consistency decision is based.

Under the CZMA, federal agency activities, including leasing decisions, must be "consistent to the maximum extent practicable" with applicable enforceable policies; and a federal agency may not issue a federal license or permit if, in exercising its federal consistency review authority, the state objects that its issuance is inconsistent with one or more specified enforceable policies. The Secretary of Commerce has jurisdiction to hear an appeal of such an objection *de novo* under national interest criteria.

<http://www.maine.gov/spo/mcp/resources/regulations.php>

## **2. Potential municipal approvals required**

### **(1) Shoreland Zoning**

The Mandatory Shoreland Zoning Act requires municipalities to protect shoreland areas through adopting shoreland zoning maps and ordinances that provide for what types of activities may occur in certain areas. The shoreland areas covered by the law include areas within 250 of the normal high-water line of any great pond, river or saltwater body, areas within 250 feet of the upland edge of a coastal wetland, areas within 250 feet of the upland edge of non-forested freshwater wetlands ten or more acres in size, and areas within 75 feet of the high-water line of a stream. The Act also gives a municipality the authority to regulate land-based structures that extend over and onto state-owned submerged lands.

Municipal shoreland ordinances, which address issues such as building size and setbacks and the establishment of resource protection, general development, residential, and other zones, must be at least as stringent as and may be more protective than DEP's model ordinance guidelines (DEP rules ch. 1000). Municipalities are primarily responsible for administering the law subject to DEP oversight.

<http://www.maine.gov/dep/blwq/docstand/szpage.htm>

### **(2) Local land use approval under town ordinance(s) regarding shore-based facilities. Obtaining local land use approval may require a zoning change, variance or other project-specific approval.**

### **(3) Local building permit**

Note: In accordance with the recommendations of the Governor's Wind Energy Development Task Force<sup>9</sup>, SPO is developing a model wind energy development ordinance for use by municipalities at their discretion. In accordance with the Task Force's recommendation, SPO is planning to complete the model by the spring of 2009.

## **3. Small-scale wind energy development - DEP Certification**

A wind energy development with capacity greater than 100kw<sup>10</sup> must receive a certification from DEP that the development will:

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<sup>9</sup> See <http://www.maine.gov/windpower>

<sup>10</sup> Certification is not required for grid-scale wind energy projects which are subject to comparable requirements under the Site Law.

## **DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

### **1.13.09**

- meet the requirements of the noise control rules adopted by the Board of Environmental Protection;
- be designed and sited to avoid unreasonable adverse shadow flicker effects; and
- constructed with setbacks adequate to protect public safety<sup>11</sup>

The law directs DEP to consolidate this certification with another permit if one is required. The municipality in which the certified facility is located may in its discretion enforce the terms of the certification. The law does not make DEP responsible for doing so.

#### **B. Projects Located in Unorganized Areas of the State**

LURC is the lead state licensing and permitting agency for projects located within the unorganized areas of the State. As described above, LURC has development review standards for consideration of a project's potential effect on wildlife, habitat, scenic, and other natural resources values in making a permitting decision. Unlike DEP, LURC has planning and zoning responsibilities (akin to those of municipalities in the State's organized areas) in addition to its environmental review responsibilities.

##### **1. State requirements**

The following are descriptions of potentially applicable state requirements for wind energy development located within the unorganized areas of the State.<sup>12</sup>

###### **(a) Land Use Regulation Commission approval**

Pursuant to changes made by PL 2001 c. 661, LURC reviews a proposal for grid-scale wind energy development in the "expedited area" under the same wind-specific standards as used by DEP in making a decision under the Site Law regarding shadow flicker, safety setbacks, noise, significant tangible benefits, and scenic effects, in addition to other LURC development review criteria discussed below<sup>13</sup>. Rezoning (discussed below) is not required for a grid-scale project located in the expedited area. LURC staff has advised that all submerged lands in its jurisdiction are currently zoned as wetland protection subdistricts and that rezoning is required for wind development in such a zone outside the expedited area.

The "expedited area" established by PL 2007 c. 661 includes specified places comprising about 1/3 of LURC territory, including several townships located on waters subject to tidal influence and all unorganized coastal islands. LURC may add additional unorganized places to the expedited area by rule.

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<sup>11</sup> 35-A MRSA section 3456

<sup>12</sup> Unlike DEP, LURC's jurisdiction regarding proposed wind power development is not tied to the development's generating capacity.

<sup>13</sup> The Law Court (Maine's state supreme court) also has original appellate review over LURC's decisions on grid-scale wind energy development.

## DRAFT; NOT AGENCY OR ADMINISTRATION POLICY

### 1.13.09

Note: See note above re: municipal boundaries' relationship to determination of LURC or DEP jurisdiction. Also, the geographic extent of places in LURC territory, e.g., coastal islands, listed as included within the expedited area may need to be considered in determining whether a proposal is located in DEP or LURC jurisdiction.

#### (i) LURC rezoning

Except as otherwise provided by PL 2007 c. 661, wind energy development is not an allowed use in any LURC subdistrict. In order to obtain project approval, an applicant must request that the Commission rezone an existing subdistrict to a Planned Development Subdistrict (D-PD). *See*

<http://www.maine.gov/doc/lurc/reference/rulechapters/ch10-04.pdf>

Large-scale planned developments will be allowed if the site is the best one reasonably available for the proposed use, the development depends upon a natural feature or location which is available at the proposed site and the remaining standards and requirements of LURC's governing statute and regulations are satisfied.

12 MRSA §685-B(4) provides the statutory approval criteria. In sum, the law requires the applicant to demonstrate that:

- "Adequate technical and financial provision" has been made for compliance with state air and water pollution control and other environmental laws, including but not limited to those of the site law and NRPA (see above);
- "Adequate provision has been made for loading, parking and circulation of land, air and water traffic, in, on and from the site, and for assurance that the proposal will not cause congestion or unsafe conditions with respect to existing or proposed transportation arteries or methods";
- "Adequate provision has been made for fitting the proposal harmoniously into the existing natural environment in order to assure there will be no undue adverse effect on existing uses, scenic character and natural and historic resources in the area likely to be affected by the proposal";
- "The proposal will not cause unreasonable soil erosion or reduction in the capacity of the land to absorb and hold water and suitable soils are available for a sewage disposal system if sewage is to be disposed on-site;"
- "The proposal is otherwise in conformance with this chapter and the regulations, standards and plans adopted pursuant thereto." (Note: The requirements of the applicable D-PD rules are outlined below); and
- "In the case of an application for a structure upon any lot in a subdivision, that the subdivision has received the approval of the commission."

## **DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

### **1.13.09**

In addition, the applicant must demonstrate that "the public's health, safety and general welfare will be adequately protected." The law requires LURC to allow the applicant "to provide evidence on the economic benefits of the proposal as well as the impact of the proposal on energy resources." LURC may condition its approval as it deems appropriate.

#### (ii) Planned development - preliminary approval

In order to approve an application for preliminary approval of a planned development plan, LURC's D-PD rules require the following in addition to demonstration that the above-noted statutory approval criteria are met:

- Demonstrated need in the community or area;
- No undue adverse impact on existing uses and resources;
- Conforms to the objectives and policies of the Comprehensive Land Use Plan;
- Incorporates, where the land proposed for inclusion in the D-PD Development Subdistrict is in a Protection Subdistrict, a substantially equivalent level of environmental and resource protection as was afforded under such Protection Subdistrict;
- Utilizes the best reasonably available site for the proposed use;
- Conserves productive forest and/or farmland;
- Incorporates high quality site planning and design in accordance with accepted contemporary planning principles;
- Envisions a project that is reasonably self-sufficient in terms of necessary public services; and
- Provides for safe and efficient traffic circulation

<http://www.maine.gov/doc/lurc/reference/rulechapters/ch10-04.pdf> (see section G (8)(b)(1-8) (approval criteria))

#### (iii) Planned development - final plan approval

LURC's approval of the final development plan involves basically a check-list review to ensure that the applicant has addressed all information and other requirements and conditions of the preliminary approval.

<http://www.maine.gov/doc/lurc/reference/rulechapters/ch10-04.pdf> (see section G(10)(a - b) (final plan requirements and approval on acceptance))

**DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

**1.13.09**

The following guidance materials provide an overview and summary of LURC's approach to siting wind power and related transmission facilities:

<http://www.maine.gov/tools/whatsnew/index.php?topic=lurcfiles&id=2642&v=tplfiles>  
(links to flowchart and related information on LURC process)

<http://www.maine.gov/tools/whatsnew/attach.php?id=2642&an=1> (approvals required for wind power development)

<http://www.maine.gov/doc/lurc/reference/ch10.html> (LURC land use districts and standards)

**(b) Other state approvals**

Requirements discussed above regarding state submerged lands leasing (section A(1)(h)); state endangered species protection (section A(1)(e)); Maine Historic Preservation Commission review (section A(1)(f)); water quality certification (section A(1)(g)); and CZMA federal consistency review (section A(1)(i)) also apply in LURC territory.

**2. Potential municipal approvals required – not applicable**

**C. Developments Located in both DEP and LURC Jurisdiction**

In 2005, the Legislature amended the NPRA and Site Law statutes to eliminate (i) dual review of linear projects located partially within and partially outside of the unorganized territories and which required review by both DEP and LURC, and (ii) the requirement that the DEP take into account and permit under the Site Law and NRPA those aspects of a linear projects located in the unorganized territories. The legislation was enacted, in part, to address the regulatory anomalies that exist with wind power projects located in the unorganized territories where a small portion of an associated transmission line is located outside of LURC jurisdiction.

DEP may assume jurisdiction over the portion of a project located in LURC jurisdiction only if the development is an approved use in the applicable subdistrict. Accordingly, DEP may assume jurisdiction over a grid-scale wind energy development in LURC territory only if it is located in the expedited area. It is likely, however, that DEP may permit the entirety of a transmission line associated with a wind power project because transmission lines are an approved use in almost all LURC subdistricts. Currently, there is no mechanism for LURC to permit the entirety of a transmission line located partially in LURC and partially in DEP jurisdiction.

**D. State Utilities Regulation - Public Utilities Commission (same in organized and unorganized areas)**

## **DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

### **1.13.09**

PUC approval, through issuance of its "certificate of public convenience and necessity", is required for utilities' transmission lines greater than 100kV in organized and unorganized areas. 35-A M.R.S.A. § 3132, sub-§2. PUC approval is not required for generator leads (investor-owned power lines that simply connect the project to the grid), provided that if a utility builds and owns a line whose purpose is to connect the generator to the grid PUC approval would be needed. *See* P.L. 2007, ch. 148 § 2 (enacting 35-A M.R.S.A. § 3132, sub-§1-B).

PUC's decision on whether to issue such a certificate involves a public interest test centered on determination that there is a need (typically involving a system reliability issue) for the proposed transmission line and that the proposed project is the most economic means to address the need. PUC's decision "establishes that, as of the date of issuance of the certificate, the decision by the utility to erect or construct was prudent." 35-A M.R.S.A. § 3132, sub-§6. Municipal and/or state land use approval (e.g., DEP permit) of the transmission line may also be required under the authorities discussed above.

<http://janus.state.me.us/legis/statutes/35-A/title35-Asec3132.html>

#### **E. Federal Regulatory Framework (Organized and Unorganized areas)**

The following federal requirements may apply to a grid-scale wind energy development whether it is located in the State's organized or unorganized area.

Note: A recent Congressional Research Service publication<sup>14</sup> available on the task force's website provides a useful discussion of federal regulatory authorities and related jurisdictional issues summarized in this section.

##### **1. Army Corps of Engineers**

Under Section 404 of the Clean Water Act, 33 U.S.C. § 1344 and Section 10 of the Rivers and Harbors Act, 33 U.S.C. 403 (as applicable), a permit is required for the discharge of dredged or fill material into waters of the United States, including wetlands. Section 10 approval is required for discharge of dredged or fill material or placement of structures or other alterations in navigable waters of the United States. The Army Corps of Engineers ("ACOE") is the federal agency primarily responsible for permitting under Section 404 and Section 10. A Section 404 and/or Section 10 permit may be required for placement of temporary or permanent structures or filling, such as towers, platforms, moorings, or transmission cables, in state or federal waters.

In general, in order to obtain a 404 permit, the applicant must demonstrate that the proposed discharge would not significantly degrade waters of the United States, that there is no less damaging practicable alternative to the proposed discharge, and that steps have been taken to avoid, minimize and in some cases mitigate for unavoidable adverse

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<sup>14</sup> <http://www.maine.gov/spo/specialprojects/OETF/Reference.htm>

## **DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

### **1.13.09**

effects. In general, in order to obtain a Section 10 approval (administered jointly with the 404 permit as applicable), the applicant basically must show that the proposed activity will not significantly obstruct or alter navigable waters. Under either permitting authority, applicants must also demonstrate that the project is not contrary to the public interest.

### **2. Department of Energy (“DOE”) /Federal Energy Regulatory Commission (“FERC”)**

Unless power is being exported to a foreign country, DOE approval is not required for transmission lines or infrastructure. *See* Executive Order 10485 of September 3, 1953 as amended by Executive Order 12038 of February 3, 1978 (requiring executive permission for the construction and maintenance of border facilities, including electric lines).

FERC has jurisdiction to ensure that minimum interconnection standards ("MIS") (designed to ensure that the reliability and operation of the grid is not affected) are met when a generating facility is connected to the interstate grid.

### **3. Federal Aviation Administration (“FAA”)**

The Secretary of Transportation has the authority to require adequate public notice of the construction of a structure when the notice will promote safety in air commerce and the efficient use and preservation of navigable airspace. *See* 49 U.S.C. § 44718(a). Pursuant to 14 C.F.R. § 77.13(a), written notice must be provided to the FAA for any structure that (1) rises more than 200 feet above the ground; or (2) bisects a plane extending outward and upward at a slope of 100 to 1 for a distance of 20,000 feet for large airports, 50 to 1 for a distance of 10,000 feet from smaller airports, or 25 to 1 for 5,000 feet from any heliport.

FAA guidance on aviation lighting for wind projects issued on or about February 1, 2007, calls for synchronized flashing red light (FAA L-864) on turbines along the project perimeter with unlighted gaps not to exceed ½ mile. Not all towers must be lit and day time lighting is not called for provided towers are painted white or off-white (as is common with wind turbines). *See* FAA Advisory Circular 70/7460-1K.

### **4. United States Coast Guard**

A permit for private aid to navigation on fixed structure in waters of the United States may be required to allow placement of wind turbines and related structures in marine waters. (14 U.S.C. § 85; 33 C.F.R. Parts 62-7).

Note: Marine transportation-related issues, e.g., the proposed project's location in relation to designated shipping lanes, may be an issue in the context of various federal and state regulatory reviews.

**5. Review agency authorities**

In addition to the permitting programs referenced above, federal agency review is required under several other authorities.

a. National Environmental Policy Act ("NEPA")

Where federal permits are required, agencies such as U.S. Fish & Wildlife Service ("USFWS"), the National Marine Fisheries Service ("NMFS") and the Environmental Protection Agency ("EPA") will have an opportunity to review and comment on environmental review documents ("EA" or "EIS") prepared under the National Environmental Policy Act ("NEPA") as well as federal permit applications. State and federal agencies may recommend or impose additional requirements on a project. In addition, in connection with the NEPA process, the State Historic Preservation Office ("SHPO") and Maine's federally-recognized Indian Tribes must provide clearance as part of the federal permitting scheme pursuant to Section 106 of the Historic Preservation Act. In light of its permitting authority, ACOE is likely to be the lead federal agency under NEPA for wind projects in Maine's coastal waters.

b. Federal Endangered Species Act

The Federal Endangered Species Act, 16 U.S.C. §§ 1531, *et seq.*, prohibits the taking of any federally listed species. A prohibited take is broadly defined and includes to harass or harm, as well as to wound or kill, and harm in turn may include habitat modification or degradation. 50 C.F.R. § 17.3. The Act provides for an incidental take permit for activities, otherwise lawful, that may result in an incidental taking.

The Bald and Golden Eagle Protection Act, 16 U.S.C. §§ 668, *et seq.*, also prohibits the taking of bald and golden eagles. Marine mammals, such as the Northern right whale, and marine turtles are on the ESA list. See above re: MESA.

c. Marine Mammal Protection Act

With limited exceptions, the Marine Mammal Protection Act ("MMPA") prohibits "taking" of marine mammals, such as whales and dolphins. NMFS and USFWS jointly administer the Act. Like the federal ESA and MESA, the MMPA has an "incidental take" provision which allows USFWS or NMFS to authorize "take" (a term which includes a range of harm from harassment to mortality) of marine mammals for up to five years where the agency finds the take would have a *de minimis* impact on the pertinent species or stock. MMPA rules provide a process for consideration of a requested take authorization.

d. Migratory Bird Treaty Act

## **DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

### **1.13.09**

The Migratory Bird Treaty Act, which is administered by USFWS, includes a federal prohibition against the taking, trading in, or transporting migratory birds. 16 U.S.C. §§ 703, *et seq.* The definition of take includes “to pursue, hunt, shoot, wound, kill, trap, capture, or collect.” 50 C.F.R. § 10.12. The Act provides for protection of all common songbirds, waterfowl, shorebirds, raptors (eagles and hawks), owls, ravens, crows, native doves and pigeons, swifts, martins, swallows and species. See 50 C.F.R. 10.13 (list of protected species). Protection extends to species' feathers, plumes and other body parts, as well as nests and eggs. Unlike the Endangered Species Act, there is no mechanism under the Migratory Bird Treaty Act to obtain an incidental take permit for activities that may result in unintended death or harm to covered species.

e. Magnuson-Stevens Fisheries Conservation and Management Act ("MSFCMA")

Under Section 305 of the MSFCMA, federal licensing and permitting agencies are required to consult with NMFS and consider its recommendations regarding a proposal's potential impact on "essential fish habitat." The New England Fisheries Management Council (NEFMC) has taken an active interest in wind power projects proposed for New England's ocean waters and provided comments regarding potential fisheries impacts. The Atlantic States Marine Fisheries Commission (ASFMC) may also participate in environmental reviews.

f. United States Navy

Citing concerns over the potential for adverse effects on naval operations on land and water, the Navy has requested that LURC consult with the Navy early in the development review process. The Navy may also choose to review and comment on other federal or state reviews regarding proposed wind energy development.

## **Part Two: Wind Power Development in Federal Waters<sup>15</sup>**

### **A. Federal requirements**

#### **1. Minerals Management Service - OCS lands lease<sup>16</sup>**

The Energy Policy Act of 2005 makes the Minerals Management Service (“MMS”) the lead federal agency for off-shore wind projects in federal waters, although other federal authorizations are required. Accordingly, MMS would likely be the lead NEPA agency responsible for preparation of the NEPA document (EIS or EA) supporting its decision and that of cooperating federal agencies.

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<sup>15</sup> As used here, this means a development located in, on, or over federally owned OCS lands from the three-mile limit to the extent of the U.S. Exclusive Economic Zone (200 nm).

<sup>16</sup> The CRS publication referenced above provides a helpful background regarding this relatively new MMS responsibility.

## **DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

### **1.13.09**

To implement this new authority, MMS has issued detailed proposed rules to govern the leasing of OCS areas for wind power and other forms of renewable energy development under its Alternative Energy Program.<sup>17</sup> Posted on the task force's website<sup>18</sup> is an MMS presentation which provides a useful summary of key features of the proposed rules.

MMS leasing program calls for issuance of leases of OCS lands for alternative energy projects on a competitive basis where there is evident interest. The proposed rules envision leasing on a case by case basis as opposed to in accordance with a national or regional leasing plan identifying suitable areas. The proposed rules call for consideration of a variety of environmental and natural resources-related issues in consultation with federal resources agencies when MMS considers plans for development of leased lands. In a manner comparable to that regarding oil and gas revenues under the Outer Continental Shelf Lands Act, the proposed rules contain rather complex provisions regarding revenue sharing with coastal states in the case of projects located in the so-called "8(g) zone", federal waters from the 3-mile limit to 6 miles offshore.

Note: The other federal authorities discussed above (Part One, Section I(E)) are also applicable to a grid-scale wind energy development proposal in federal waters.

## **B. State Requirements**

### **1. State permits**

State has regulatory jurisdiction and leasing authority over project elements located within Maine's coastal waters (3nm shoreward) under the laws and rules outlined above. Local authorities discussed above may also apply to these in-shore project elements. Unless otherwise provided by federal law, states and their subdivisions do not have regulatory authority over projects on federal waters (i.e., outside the three-mile limit and thus outside the state's boundary).

### **2. CZMA - Federal consistency review**

The CZMA provides for review of federal agency actions by MMS and other federal agencies regarding offshore wind power development for consistency with applicable state enforceable policies. *See* Part One, section I(A)(1)(i), above.

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<sup>17</sup> <http://www.mms.gov/offshore/RenewableEnergy/Regulations.htm> (link to proposed rule and related documents). The State Planning Office, Maine Coastal Program, offered comments on the proposed rules which, together with other public comments, are accessible via this website. See also <http://www.sutherland.com/files/News/080e5fe0-9e7b-4474-ab45-045474d10277/Presentation/NewsAttachment/9cf31b0c-ffcf-452b-8874-058280e957df/EnergyAlertMMSProposesOffshoreAltEnergyProgramRegulations7908.pdf> (link to document summarizing the main elements of the proposed rules).

<sup>18</sup>

## **DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

### **1.13.09**

MMS proposed rules involve several related actions to which states' federal consistency review authority applies, some of which involve review of a federal activity (competitive lease), some of a federal license or permit action (non-competitive lease), and others possibly of an OCS development plan (construction and operations plan). Federal rules governing the CZMA consistency review process provide different procedures, timelines, and state and federal authorities depending on the nature of the federal action under review. Accordingly, some states have requested in their comments on MMS' proposed rules that the agency clarify and simplify its CZMA-review related provisions.

## **PART THREE: TIDAL POWER DEVELOPMENT IN MAINE'S COASTAL WATERS<sup>19</sup>**

### **I. State Tidal Power Policy**

The State has not enacted a policy regarding tidal power comparable to that for wind power.

### **II. License and Permit Requirements**

#### **A. State Requirements**

#### **1. Maine Waterway Development and Conservation Act (38 M.R.S.A. §§ 630-637)**

The Maine Waterway Development and Conservation Act (MWDCA), originally enacted in 1983 as part of the Maine Rivers Policy legislation, was intended to support and encourage the development of hydropower projects by simplifying and clarifying requirements for permits, while assuring reasonable protection of natural resources and the public interest in use of waters of the State. The law creates a one-stop permitting process for the construction, reconstruction, or structural alteration of any project that utilizes the flow of water as a source of electrical or mechanical power. The permitting process is administered by DEP for projects located in organized municipalities and by LURC for projects located in unorganized territories.

In approving a hydropower project proposal under the MWDCA, DEP or LURC must find that (a) an applicant has made adequate provisions for financial capability and technical ability, public safety and traffic movement, and for mitigating adverse environmental impacts, (b) that water quality standards will be met, and (c) that the advantages of the project of the project are greater than the direct and cumulative adverse impacts of the project based on considerations of the benefits or harm of the project to wetlands, soil stability, fish and wildlife resources, historic and archaeological resources,

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<sup>19</sup> As used here, the term "tidal power development" refers to projects that involve either emerging tidal in-stream energy conversion ("TISEC") technologies or impoundment of marine waters to generate "head" for power production. By their nature, projects of this type would be located in nearshore, state waters. Consequently, this document focuses on requirements in

## **DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

### **1.13.09**

public rights of access and use of surface waters, flooding, and power generation. DEP has issued rules that further detail the statute's requirements.<sup>20</sup>

In 2007, the MWDCA was amended to specify that a permit is required for any project that utilizes tidal or wave action to generate power.<sup>21</sup>

## **2. Water Quality certification**

As noted above (Part One, section II(A)(1)(g)), the federal Clean Water Act requires that the State certify that a project subject to federal licensing meets state water quality standards. DEP is the water quality certification agency for tidal and other hydropower projects in organized municipalities. LURC exercises this authority in the unorganized areas. The MWDCA permit decision serves as a component of the State's 401 certification decision.

## **2. Other state authorities**

Requirements discussed above in Part One, section II(A)(1), regarding state submerged lands leasing; state endangered species protection; Maine Historic Preservation Commission review; and CZMA federal consistency review also apply to tidal power development. To the extent practicable, review under these authorities is consolidated into the MWDCA permit review process.

## **3. Potential municipal approvals required**

The municipal approvals discussed in Part One, (A)(2), above, also apply to proposed tidal power development.

## **B. Federal Requirements**

### **1. Federal Energy Regulatory Commission**

Under the Federal Power Act, the Federal Energy Regulation Commission ("FERC") is responsible for licensing hydroelectric power projects. FERC has determined that in-stream tidal power projects are subject to its hydro licensing authority. FERC's multi-step, typically multi-year hydro licensing process involves consultation with federal and state agencies and the public. Review agencies may recommend license terms and conditions to FERC to protect and enhance water quality, fisheries resources, public recreation, renewable energy production, and other public interests, consideration of which, employing a balancing test, forms the basis for FERC's licensing decision. By law, the terms and conditions in the state water quality certification become terms and

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<sup>20</sup> DEP rules chapter 450

<sup>21</sup> See 38 MRSA §632(3)

**DRAFT; NOT AGENCY OR ADMINISTRATION POLICY**

**1.13.09**

conditions of the federal hydropower license FERC issues. FERC issues hydro licenses for terms of 30 to 50 years.

FERC typically serves as the lead federal agency for hydro projects and thus the lead agency for NEPA. FERC has developed procedures for integration of NEPA review into its licensing process.

FERC has the authority to issue a preliminary permit. While it doesn't authorize construction or operation, such a permit does grant the holder an exclusive three-year right to file an application for a FERC hydro license for the location covered by preliminary permit. In recent years, FERC has issued 12 preliminary permits for tidal power projects in Maine, of which, DEP staff advises, one appears to have made significant progress toward filing a license application with FERC.

**2. Other federal requirements**

The federal requirements and review agency authorities discussed in Part One, section II(E), above, also apply to tidal power projects. MMS does not have leasing or related review authority over state-owned submerged lands.