Chapter 91 Licensing & Renewable Energy

Introduction

Known as Chapter 91, the Public Waterfront Act is administered by MassDEP's Bureau of Water Resources, and ensures that the Commonwealth's waterways are used primarily for water-dependent purposes and that the public has access to and use of these waterways. The Commonwealth's vision for our energy future involves increasing the renewable power generation capacity across the state, including taking advantage of the renewable energy sources located along the coast and in our fresh and coastal waters. Many renewable energy projects, including wind, solar, and projects relying on wave, currents or tidal action are currently being proposed in and near the Commonwealth's waterways. Because these projects may require a Chapter 91 license, this fact sheet provides an overview of how some kinds of renewable energy proposals fit the public waterfront licensing requirements and how the facilities can be permitted in these areas. If a project is located below the high water mark of a Great Pond or tidal waters, or within flowed waters of a navigable river or stream, a chapter 91 license is required. Licenses may be granted only if the project serves a public purpose which provides greater benefits than detriments to the rights of the public in the Commonwealth's waterways.

There are two types of uses that require a Chapter 91 license - water dependent and nonwater-dependent. Water-dependent uses require direct access to or a location in tidal or inland waters.[1] Nonwater-dependent uses do not depend on proximity to water.[2] The standards for licensing water-dependent uses are far less stringent than the standards for nonwater-dependent uses because water-dependent uses are presumed to serve the public purposes of Chapter 91. Many renewable energy technologies are water-dependent uses.

In addition to water-dependency use classification, review of the location of a proposed renewable energy technology is very important. Consistent with Chapter 91, a renewable energy technology must be located in an area where it will not significantly interfere with navigation or public access to and along tidal waters, great ponds, or navigable rivers and streams.

Pursuant to the Oceans Act of 2008, the Secretary of the Executive Office of Energy and Environmental Affairs (EEA) issued an Ocean Plan that among other planning goals identifies offshore areas where renewable energy infrastructure may be allowed. The Ocean Plan also identifies certain multiple use areas where, based on a case by case analysis, the environmental impacts may be determined to be suitable for pilot or community scale wind energy facilities (fewer than 11 turbines), wave and tidal energy technologies. As developments in this area are happening quickly, please check the Ocean Plan for current designations.[3] Other regulations may apply different siting standards to renewable energy projects within Areas of Critical Environmental Concern (ACECs) and Designated Port Areas (DPAs).

Chapter 91 licensing of commercial renewable energy facilities

Commercial renewable energy facilities are projects with the primary purpose of supplying power to the grid. Commercial renewable energy projects are typically complex projects that require extensive review with many agencies besides MassDEP and are likely to have a broad range of impacts. The Chapter 91 regulatory review of a commercial energy facility focuses on whether the use is water-dependent and where the project is located. Early pre-application consultation with the Waterways Program is strongly encouraged.

[1] Examples of water dependent uses include marinas, boat basins, channels, storage areas and other commercial or recreational boating facilities, facilities for fishing, swimming, and other water-based recreation, parks, esplanades, boardwalks and other pedestrian facilities that promote public use of the water.

[2] Examples of non-water dependent uses include restaurants, other food establishments, retail shops, parking facilities, office facilities, housing, hotels, motels, and other transient lodging facilities.

[3] The Ocean Plan is available at EEA's website.

Table 1: Chapter 91 Review of Commercial Renewable Energy Facilities

Renewable Energy Facility	Water-Dependent	Chapter 91 Regulatory Siting Standards
Ocean wave, ocean tidal or current	Yes	Classified as water-dependent industrial & allowed anywhere except in flowed tidelands[4] in an ACEC. Permitted in an Ocean Sanctuary only as allowed by the Ocean Plan.
Hydroelectric	Yes	Classified as water-dependent industrial & allowed anywhere except in flowed tidelands[4] in an ACEC. Permitted in an Ocean Sanctuary only as allowed by the Ocean Plan.
Wind	Presumed to be water-dependent, subject to alternatives analysis	Water-dependent wind power facilities are allowed on filled[5] and flowed tidelands (except on flowed tidelands in an ACEC) and for limited uses in a DPA. Permitted in an Ocean Sanctuary only as allowed by the Ocean Plan.
Solar	No	Classified as a nonwater-dependent infrastructure facility. Cannot be located in flowed tidelands. Cannot generally be located in DPAs.
Renewable Transmission Facilities	Yes	These components (such as cables from offshore wind turbines) will be classified as water-dependent industrial & are allowed anywhere, except in ACEC flowed tidelands & as allowed by the Ocean Plan.

Please consult the Waterways Program for guidance on classifying other kinds of commercial renewable energy projects.

Accessory renewable energy facilities

Private developments are increasingly adding renewable energy facilities to project plans to offset all or a portion of their energy costs. These facilities may or may not send excess electricity to the grid, but the primary purpose is to provide for the energy needs of the on-site development. Typical examples include a stand-alone wind turbine on land or on the roof of a building; rooftop solar panels, a small array, or solar powered exterior lighting; or a geothermal/ground source heat pump. The licensing requirements for an accessory renewable energy facility depends

[4] Flowed tidelands are present submerged lands and tidal flats which are subject to tidal action.

[5] Filled tidelands are former submerged land and tidal flats which are no longer subject to tidal action due to the presence of fill.

to a great extent on whether the primary use is water-dependent. Where a wind turbine, solar panel, or geothermal system is proposed within the footprint of an existing, licensed structure (i.e. on the roof or basement), no further licensing may be required. Please consult with the Waterways program for definitive licensing determinations, and be aware that other state and federal approvals may be required.

- Water-dependent uses include marinas, yacht clubs, boatyards, waterfront parks, marine terminals, and commercial fishing piers (see 310 CMR 9.12). A renewable energy facility that is accessory to a water-dependent use has relatively few regulatory prohibitions on where it can be sited. For example, a marina may erect a solar panel on a pier to provide for lighting and other power needs, or a fish processing plant may install a solar array or wind turbine to provide power for the plant.

Typical building uses that are nonwater-dependent include office, residential, retail, or hotel use. In general, a project component that supplies renewable energy to a nonwater-dependent use will have greater limitations on where it is placed. For instance, an accessory wind or solar facility should be placed on land and may be required to be set back from the shoreline. In contrast, a facility that generates electricity from wave, current, or tidal power, which must be located in the water, is a water-dependent use regardless of the primary use of the site.

Table 2: General Guidelines for Siting Common Accessory Renewable Energy Facilities

Accessory Renewable Technology	**Siting guidelines based on underlying primary use**		
	Nonwater-Dependent (examples: office, industrial, residential, & commercial)	**Water-Dependent (examples: marinas, yacht clubs, waterfront recreation)**	**Water-Dependent Industrial (examples: marine terminals, commercial fish processing)**
Solar	Panels or arrays on rooftops, & smaller photovoltaic systems associated with exterior landscaping are allowable; stand-alone panels or arrays subject to set back from waterfront, should not block public access or be sited on piers or in water.	Avoid impacts to navigation and public access	Avoid impacts to navigation & interference with industrial operations on site or on adjacent sites
Wind	Small rooftop turbines are allowable; a stand-alone turbine may be subject to a setback from shoreline & should not block public access or be sited on piers or in the water	Avoid impacts to navigation and public access	Avoid impacts to navigation & interference with industrial operations on site or on adjacent sites
Wave, tidal, current	Minimize interference with navigation & other water-dependent uses	Minimize interference with navigation & other water-dependent uses	Minimize interference with navigation & other water-dependent uses

Accessory Renewable Technology	Siting guidelines based on underlying primary use		
	Nonwater-Dependent (examples: office, industrial, residential, & commercial)	**Water-Dependent (examples: marinas, yacht clubs, waterfront recreation)**	**Water-Dependent Industrial (examples: marine terminals, commercial fish processing)**
Geothermal	Heat pump systems are allowable & should be confined to the footprint of an otherwise allowable building; any exterior surface components should be set back from the shoreline & not block public access.	Avoid impacts to navigation and public access	Avoid impacts to navigation & interference with industrial operations on site or on adjacent sites

Benefits of including Renewable Energy Features in a Waterways Project

- A project may generate its own energy and "Go Green". Advantages can include:
- Energy generation benefits including smaller carbon footprint and lower energy costs
- Positive public response to "going green"
- Integrated environmental message when constructed in a way that is respectful of coastal / tidal environment
- Increased foot traffic by those curious about and devoted to renewable energy
- More siting flexibility for water dependent renewable energy projects. Water-dependent facilities are not subject to height, density, use, or setback limits. Renewable energy infrastructure can be designed on-site to maximize generating capacity.

Using an on-site renewable facility can provide public benefits

Nonwater-dependent projects are required to provide public benefits that promote the public use of tidelands. With careful planning and design, a renewable energy facility may satisfy a portion of the public benefits requirement. For example, in cases where public facilities are required on the ground level of buildings, interior space can be dedicated to public information about an on-site renewable energy facility. Other examples of how renewable energy components can provide Chapter 91-related public benefits include:

- Equipping public areas with charging stations powered from renewable sources for electric vehicles or marine vessels.
- Providing interactive exhibits or public charging stations (ideally from renewable energy sources) for cell phones, MP3 players, or other electronic devices.
- Installing interpretive educational exhibits on the renewable power being generated on-site or nearby, current energy use, and equivalent greenhouse gas reductions.

Municipal Harbor Plans

Municipalities can vary certain requirements of the Waterways regulations to meet local tidelands objectives by developing of a Municipal Harbor Plan approved by the Secretary of EEA. Such plans may encourage the development of

renewable energy by including provisions that allow nonwater-dependent renewable energy facilities, such as solar, in areas where they would otherwise be prohibited providing an equivalent area is dedicated to water-dependent uses. No approved Municipal Harbor Plan currently has included these incentives. The Office Coastal Zone management approves Municipal Harbor Plans.

License Terms

The standard license term is 30 years. A factor that MassDEP would consider in extending this standard term is the degree to which the project supports broad environmental policies of the Commonwealth, such as increasing the state's renewable energy resources, and other water-related public interests. Generally, there is an unlimited term on a license for any project undertaken by a public agency for the provision of services to the public. For instance, a state or municipal bridge spanning a regulated waterway could have an unlimited license term as could a wind turbine generating energy for a municipal function (such as a water treatment plant).

Pilot projects for renewable energy facilities under Chapter 91

MassDEP understands that testing of new wind, tidal, wave, and/or current generators is a critical component in the development of new renewable energy technologies. The Ocean Plan allows appropriately-scaled pilot facilities in designated “Multi-Use areas” found throughout most of the state's offshore waters. There is currently no special Chapter 91 licensing option for pilot projects, which would require regulatory changes. A piloting provision is now being considered by the Program. If you are interested in establishing a pilot project for a renewable energy technology please contact the Waterways Program to discuss permitting options available for timely and inexpensive review.