

## SUMMARY CHART APPLICABLE OCEAN ENERGY REGULATIONS<sup>1</sup>

Applicable Laws & Regulations	OTEC	Wave Energy Conversion, Current and Tidal	Offshore Wind
<p>Agency w/ primary permitting authority</p>	<p>NOAA, pursuant to OTEC Act, 42 U.S.C. § 9111 ( no person shall engage in the ownership, construction or operation of an OTEC facility...[located in the waters of the United States] except with a license issued [by NOAA].</p>	<p>FERC, pursuant to Federal Power Act, 16 U.S.C. § 817(1) ( it shall be unlawful for any person...for the purpose of developing electric power, to construct, operate or maintain any dam...reservoir, power house or other works...across navigable waters of the United States or upon any part of public lands or reservations of the United States...except in accordance with a license...[issued by FERC]. FERC has determined that a wave energy buoy is a hydro project with a power house and that navigable waters extend twelve miles from shore. <u>See Aqua Energy</u>, 102 FERC ¶ 61,242 (2003) . Based on this broad decision, FERC will probably classify any ocean technology that uses water (even those with oscillating water columns and pneumatic turbines) as hydro. Note - FERC licenses are not required for federal projects.</p>	<p>Corps of Engineers, pursuant to Section 10, Rivers and Harbors Act, 33 U.S.C. § 403 ( it shall not be lawful to build or commence the bulding of any wharf, pier...or other structure in any port, roadstead...or other water of the United States...except on plans recommended by the Chief of Engineers and authorization by the Secretary of the Army... ). For projects on the OCS, the Corps permitting authority is extended under the OCSLA, 43 U.S.C. § 1333(e) ( the authority of the Secretary of the Army to prevent obstruction to navigation in the navigable waters of the United States is extended to artificial islands, installations... )</p>

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<sup>1</sup> This table does not cover salinity gradient projects because of a lack of familiarity with this technology.

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OTEC Act, 42 USC § 9111	The OTEC Act was specifically enacted to establish a comprehensive licensing scheme for OTEC plants. NOAA promulgated regulations governing applications (15 C.F.R. Part 981) but withdrew them in 1996 due to a lack of OTEC applicants. <u>See</u> FR 2969-2971 (January 30, 1996)	OTEC Act does not apply.	OTEC Act does not apply.
Section 10 Rivers and Harbors Act, 33 U.S.C. § 403 permit	Yes. Plants are a potential obstruction to navigation.	No. Federal Power Act preempts Section 10 permit requirement.	Yes, permit required.
Federal Power Act- FERC license requirements	No. OTEC Act establishes licensing alternative to FERC jurisdiction.	Yes. FERC classified an ocean wave energy conversion system as a hydro project, because it uses water to generate electricity and also, that the buoy where generation takes place is a powerhouse. FERC's definition will likely apply to any similar technologies which use ocean water, such as tidal, current and variations of wave energy conversion systems.	No. Offshore wind uses air, not water so it would not fall within the definition of hydro and be subject to FERC license requirements. But if a wind developer seeks to add a wave energy component to the project, that project would likely be subject to FERC regulation.
Does agency with jurisdiction have special procedures or exemptions in place for demo projects?	NOAA regulations on OTEC exempted demo projects qualified by the Department of Energy as well as non-permanent OTEC test platforms.	No exceptions outright in FERC regulations. FERC allows for exemptions from licensing but licensee still must comply with FERC regulations unless it can get a waiver. FERC jurisdiction would not apply for R&D projects funded by other federal agencies.	No.

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Applicable Standard for agency s issuance of license or permit.	NOAA can issue an OTEC license where project is in national national interest, will comply with applicable laws and after consultation with other federal agencies sharing jurisdiction.	In issuing a license, FERC must give equal consideration to environmental and energy concerns (Sec. 4(e) FPA, 16 U.S.C. § 797) and be best adapted to a comprehensive plan for developing a waterway, for protecting fish and wildlife and for other beneficial uses such as recreation, irrigation, water supply.) Sec. 10 (a) FPA, 16 U.S.C. § 803(a).	In issuing a Section10 permit, the Corps must determine that a project must meet environmental requirements, applicable laws and not pose an obstruction to navigation.
Department of Interior Outer Continental Shelf Leasing Program (43 U.S.C. § 1331-§ 1337)	Does not apply. OTEC licensing statute governs.	Does not apply. DOI only has authority to issue leases for minerals production which includes oil, gas, sulphur, geopressured-geothermal and associated resources. 43 U.S.C. § 1331(q). DOI cannot grant lease for ocean wave project. Unclear whether applicants seeking to build project on OCS need to obtain property interest or lease or not.	Does not apply. Same reasons as for wave projects at left - DOI has no authority to grant lease for offshore wind.

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<p>H.R. 793 (108<sup>th</sup> Congress) Legislation to authorize Secretary of DOI to grant easements and rights of way on OCS for production, transportation or transmission of energy from sources other than oil and gas. Does not apply to activities in National Marine Sanctuaries.</p> <p>HR 793 cures the problem of acquiring property rights to OCS - but it does not give Secretary the right to license projects but only grant leases) so conflicting schemes will still remain in place ( nothing...shall be construed to displace..or modify the jurisdiction of any federal or state agency under any other federal law ).</p>	<p>No. OTEC license is apparently only requirement.</p>	<p>Yes, for projects on OCS. For projects three miles inland (in state waters), projects will require state land lease (under Federal Power Act, licensees have eminent domain authority which might allow for condemnation of state lands if lease cannot be secured).</p>	<p>Yes, for projects on OCS. For projects three miles inland in state waters, developer must secure lease from state for use of state lands.</p>
<p>Corps of Engineers 33 U.S.C. § 404 ( Section 404 dredge and fill permit</p>	<p>Likely required at least for transmission lines.</p>	<p>Likely required.</p>	<p>Likely required.</p>
<p>Clean Water Act discharge permit, 33 U.S.C. §1251-1387 (required for discharge of pollutants which includes sand, rocks, chemical waste but not water. Discharge permit is required even where there s only a possibility of discharge.</p>	<p>For systems using ammonia as working fluid, discharge permit might be required since potential release of ammonia could be considered chemical waste.</p>	<p>Not likely.</p>	<p>Not likely.</p>

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Section 401 Water Quality Certificate, 33 U.S.C. § 1341 (requiring applicants for federal license to conduct any activity which may result in any discharge, including water, to obtain a water quality certificate. Only applies to projects which emit discharges up to three miles from shore.	Unlikely to discharge.	Depends on location and technology. Certain tidal or current projects could be construed as discharging water. But Section 401 only applies to those which discharge up to three miles from shore.	No. No discharges likely.
Coast Guard Regulations - hazards to navigation (33 C.F.R. Part 62,64, 66.	Yes.	Yes.	Yes.
FAA regulations affecting navigable airspace. 14 C.F.R. Part 77.	No.	No.	Likely, though ultimately dependent upon height of structure.
National Environmental Policy Act, 42 U.S.C. § 4332(c) - requires preparation of environmental impact statement for major federal actions significantly affecting the quality of the human environment. Agency must first prepare Environmental Assessment (EA) to determine if EIS is needed. EA and EIS must consider alternatives (no-build, alternative location) and variety of socio-economic, environmental, cultural impacts.	Will need EA or EIS.	Will need EA or EIS. Federal Power Act allows licensees to retain third party contractors on agency s approved list to prepare EA or EIS.	Will need EA or EIS.

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Coastal Zone Management Act, 16 U.S.C. § 1374 (coastal states with approved CZM plan must issue a consistency finding that proposed project is consistent with state s CZM plan. Secretary of Commerce can consider whether overrule state s inconsistency finding if applicant seeks review).	Yes, applies.	Yes. License will not be issued without consistency finding. <u>See Mt. Rhythm Reservoir v. FERC</u> , 2002 U.S. App. LEXIS 17585 (Ninth Circuit August 23, 2002) (affirming denial of license where state does not issue a consistency finding under CZMA)	Yes. CZM consistency finding required.
National Historic Preservation Act, 16 U.S.C. § 470 (for protection of historic resources; consultation with state historic preservation agencies)	Yes, must be taken into account if such resources are affected.	Yes, must be taken into account if such resources are affect.	Yes, must be taken into account if such resources are affect.
Fish and Wildlife Coordination Act, 16 U.S.C. § 661 (requires consultation with federal and state fish and wildlife agencies where federal project impacts a body of water)	Yes.	Yes. In addition, FERC has its own independent consultation requirements under Section 10(j) of the Federal Power Act.	Yes.
Endangered Species Act, 16 U.S.C. § 1531. Section 7 of ESA requires consultation with Secretary of Interior prior to a project to determine if endangered species may be present	Yes.	Yes, applies.	Yes, applies.
Marine Mammals Protection Act 16 U.S.C. § 1361-1407 (prohibits harassment, hunting or capture of depleted endangered marine mammals)	Only if projects will harass marine mammals.	Applies only if project will harrass marine mammals.	Applies only if project will harrass marine mammals.

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Lease for use of state lands underwater (per Submerged Lands Act, state lands extend three miles offshore 43 U.S.C. 1301),	Depends on plant location. At a minimum land lease would be required for transmission lines to shore.	Depends on plant location. At a minimum land lease would be required for transmission lines to shore. Also, under FPA, 16 U.S.C. § 814, licensee has power of eminent domain which could possibly be used to acquire state lands.	Depends on plant location. At a minimum land lease would be required for transmission lines to shore.
State power project siting permits (also called Certificate of Public Necessity and Convenience). Typically, smaller projects are exempt from this requirement but depends on state law.	Not clear whether OTEC license obviates need for siting permit.	No. FERC licensing process preempts state siting laws.	Likely required, depending on project size.
Various other state environmental statutes (wetlands protection, waterfront revitalization, coastal erosion).	Likely applicable.	Must be followed but where FERC recommended conditions differ from state, FERC preempts state requirements.	Must be followed.