

# Permitting and Licensing Wave and Tidal Energy Projects

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# Devine Tarbell & Associates, Inc.

- FERC licensing
- Hydropower
- Verdant
- EPRI
- AquaEnergy

# Existing Projects in the U.S.

- Kaneohe Bay, HI – Ocean Power Technologies
- Makah Bay, WA – AquaEnergy Group
- Roosevelt Island, NY – Verdant Power
- Point Judith, RI - Energetech



# FERC Jurisdiction - AquaEnergy

- Makah Bay Pilot Power Project, WA
- FERC Order: AquaEnergy Group, Ltd., D102-3-01, 102 FERC ¶ 61,242 (February 28, 2003)
- The same criteria that applies to traditional hydroelectric projects applies to innovative technologies – Section 23(b)(1) FPA, 16 U.S.C. §817(1)
  - Generate electricity; and
  - Navigable waterway; and
  - Located on federal lands; or
  - Constructed after 1935 and affects interest of interstate commerce



# FERC Jurisdiction - AquaEnergy

- Not limited to falling water, dam, or reservoir
- Jurisdiction up to 12 nautical miles offshore (Presidential Proclamation No. 5928 December 12, 1988) – as compared to three mile jurisdiction
- Broad definition of powerhouse
- FERC has issued a number of preliminary permits
- To date, FERC has not issued a license for an ocean-based project



# FERC – Verdant

April 14, 2005 FERC order (111 FERC ¶ 61,024) regarding permitting of six tidal turbines by Verdant Power - FERC licensing not required if:

- Technology is experimental;
- Proposed facilities to be used for short period for purpose of conducting studies supporting preparation of license application; and
- Power generated from test project not to be transmitted into or displace power from the grid.



## July 27, 2005 FERC Order (112 FERC ¶ 61,143) - Verdant

- In its request for clarification, Verdant asserted that the induction generators it proposes to test must be connected to the grid.
- First 2 criteria of April 14 are met (experimental and short term for purposes of licensing).
- Provide power at no charge and compensate Consolidated Edison (make whole) eliminating any impacts on interstate commerce.
- FERC determines that under the conditions set forth in April 14 Order, as clarified in this order Verdant may test facilities without a license.



# FERC – Energetech

October 11, 2005 FERC order (113 FERC ¶ 62,027) regarding permitting of GreenWave Project - FERC licensing required.

- Navigable waterway; post-1935 construction; and affect interests of interstate commerce through and interstate grid.
- Subsequent FERC request asks for clarification citing July 2005 Verdant order.



# Preliminary Permit

- Purpose is to maintain the permittee's priority of application for license
- There are opportunities for competition, however if both or neither applicants are either a municipality or a state, FERC will favor earliest applicant.
- Term is for 3 years
- If application for a preliminary permit proposes to use the same water resource as an accepted application for a license, FERC will take action on an accepted license application first.



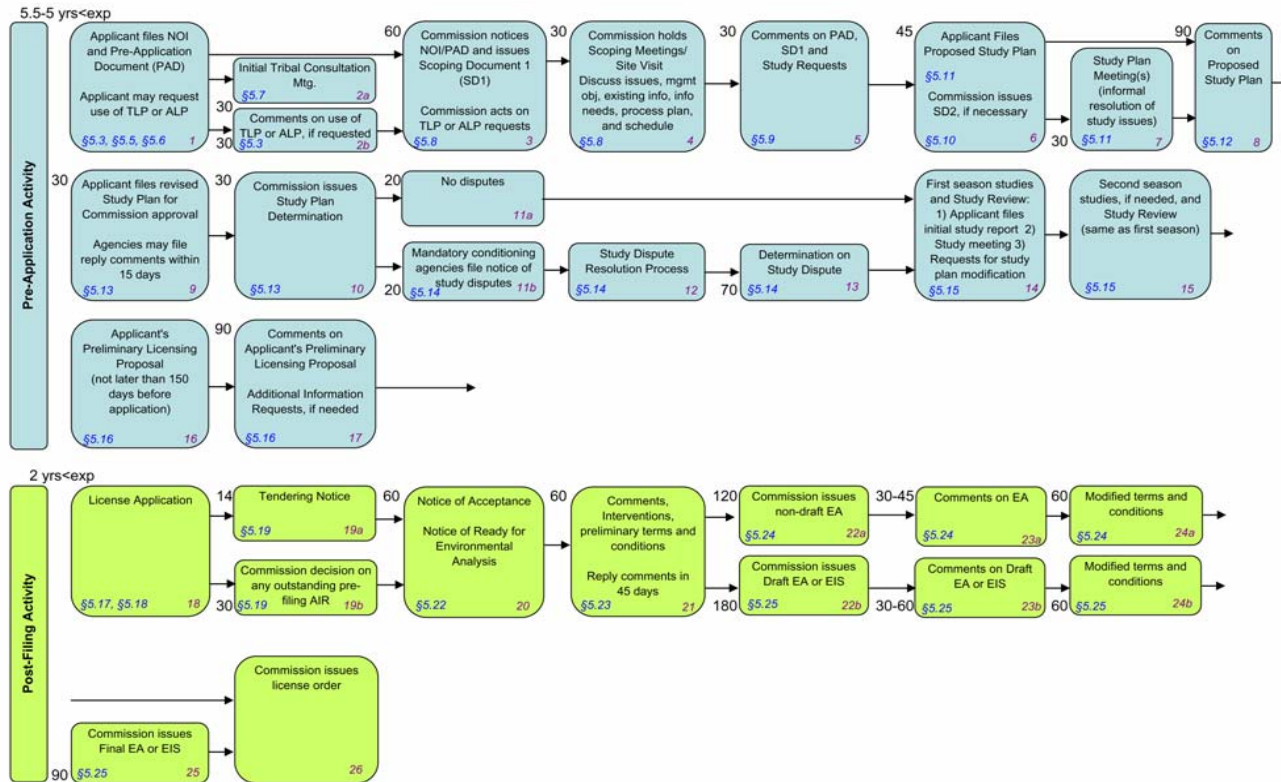
# Declaration of Intent

- Purpose is to obtain a FERC determination as to whether the project is FERC jurisdictional.
- Provides an opportunity for the applicant to make a case that the project is not subject to FERC jurisdiction.
- Typically includes a detailed description of the project and a compilation of references to other orders and FERC decisions.
- Proceeding without DOI may result in significant delays if the project is determined to be FERC jurisdictional at a later date.



# ILP Flowchart

## Integrated Licensing Process Final Rule



<http://www.ferc.gov/industries/hydropower/indus-act/flowchart.pdf>



# Minerals Management Service

- Section 388 of the Energy Policy Act of 2005
- Grant Leases on the Outer Continental Shelf
- Typically Three Miles and Greater from Shore
- Advance Notice of Proposed Rule Making
- May 2006 Deadline
- Agency Coordination

# Other Applicable Regulations

- Section 404 Clean Water Act
- Section 10 River and Harbors Act
- Section 401 Clean Water Act
- Endangered Species Act
- Coastal Zone Management Act
- National Historic Preservation Act
- Marine Mammal Protection Act
- Migratory Bird Protection Act
- Magnuson-Stevenson Fishery Act
- Applicable State Regulations

# NEPA Review

Under NEPA, federal agencies are required to prepare environmental analyses, with input from the state and local governments, Indian Tribes (First Nation), the public, and other federal agencies, when considering a proposal for a major federal action.

# **SECTION 404 OF THE CLEAN WATER ACT**

## **TITLE 33 - NAVIGATION AND NAVIGABLE WATERS CHAPTER 26 - WATER POLLUTION PREVENTION AND CONTROLS SUBCHAPTER IV - PERMITS AND LICENSES**

### **Sec. 1344. Permits for dredged or fill material**

#### **(a) Discharge into navigable waters at specified disposal sites**

- The Secretary may issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites.**
- For Verdant, COE determined that installing 6 monopoles meets the definition of “fill”, therefore the project is under COE jurisdiction.**



# **Section 10 of the Rivers and Harbors Act of 1899**

## **33 U.S.C. 403**

That the creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is hereby prohibited; and it shall not be lawful to build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States, outside established harbor lines...



# AquaEnergy Permitting Status

- Engaged in FERC Alternative Licensing Process (ALP).
- Submitted a number of non-FERC permits.
- Conducted resource studies.
- As part of ALP process, currently developing a Preliminary Draft Environmental Assessment (PDEA).

# Permits AquaEnergy has submitted (non-FERC)

- NOAA – National Marine Sanctuary Research and Education Permit
- U.S. Army Corps of Engineers – Joint Aquatic Resource Permits Application (JARPA)
- SEPA Review (for State Waters) – concurrent with JARPA
- U.S. Coast Guard – Aids to Navigation; Monitoring Buoy Approval
- WDFW – Hydraulic Project Approval – concurrent with JARPA
- WDNR – Land Use Application



# Permitting Challenges

- Agency Workloads and Priorities
- Jurisdiction
- Agency Coordination
- Meeting Schedules
- Review periods and comment submittals
- Catch-22 study scenario

# Permitting Needs

- Need Modified Permitting Process for Emerging Renewable Energy Technologies
- Additional funding from government to allow agencies to hire or provide resource staff that could be dedicated to evaluating and permitting new renewable energy technology pilot projects

# Thanks

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