



**Federal Energy Regulatory Commission**  
**Hydropower Licensing Program**  
**Oregon OCS Renewable Energy Task Force**  
Portland, OR - March 31, 2011

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## FERC Hydropower Jurisdiction

Commission authorization is required for non-Federal hydropower projects that:

- are located on navigable waters;
- are located on non-navigable waters over which Congress has Commerce Clause jurisdiction, were constructed after 1935, and affect the interests of interstate or foreign commerce (e.g., are connected to or displace power from the interstate electric grid);
- are located on public lands of the United States; or
- utilize surplus water from a federal dam.

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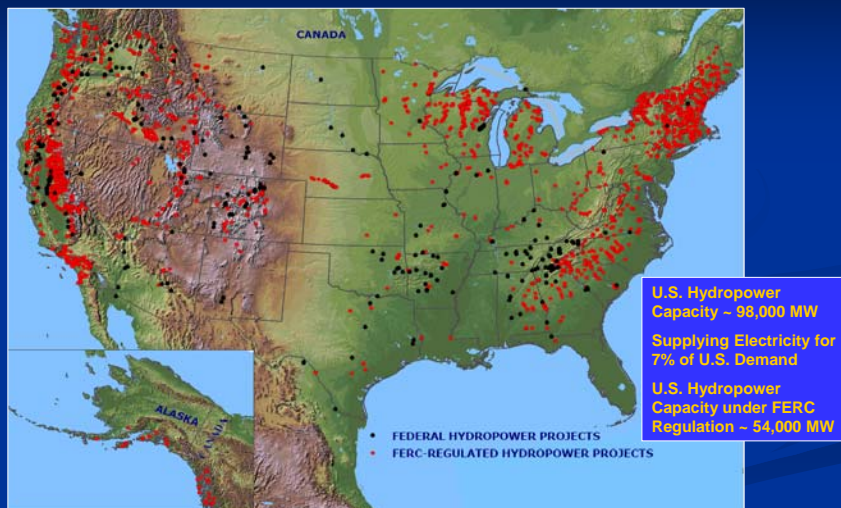


# FERC Hydropower Jurisdiction Federal Power Act



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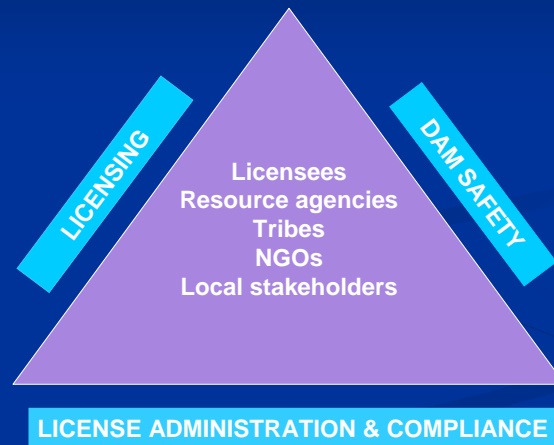
## Conventional U.S. Hydropower: Federal and FERC-Regulated



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## FERC Hydropower Program



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## FERC Hydropower Authorizations

- **Preliminary permits**
  - Maintains priority of application for three years
  - Allows potential applicant to conduct feasibility studies and pre-filing activities
  - Does not authorize construction; does not trigger environmental review or compliance with other applicable Federal statutes by the Commission.
  - In the context of marine hydrokinetic energy development on the OCS, preliminary permits would only apply to the portion of a “straddle project” located within state waters. FERC will not issue preliminary permits for projects on the OCS.
- **Licenses**
  - Authorizes construction and operation
- **Exemptions**
  - 5 MW
  - Conduit

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## Hydrokinetic Project Overview

Hydrokinetic projects generate electricity from the motion of waves or the unimpounded flow of tides, ocean currents, or inland waterways.

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## Hydrokinetic Energy Sources and Technologies for Energy Extraction

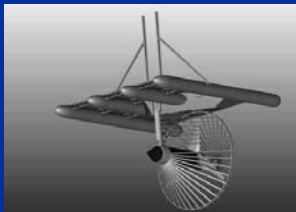
1) Ocean Current (e.g., Gulf Stream on the OCS)



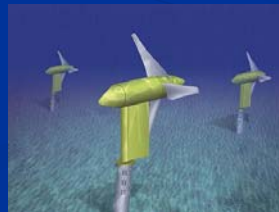
2) Wave Energy (e.g., Oregon and California Coasts, OCS)



3) Inland/River Current (e.g., Mississippi and Yukon rivers)



4) Tidal Current (e.g., Cook Inlet, AK; Puget Sound, WA)



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## FERC Hydrokinetic Project Activity

- Issued preliminary permits: 111 (10,269 MW)
  - 26 tidal, 10 wave, 0 ocean current, 75 inland
- Pending preliminary permits: 12 (237 MW)
  - 4 tidal, 1 wave, 1 ocean current, 6 inland
- Projects in pre-filing for license: 80 (8,105 MW)
  - P-12749 Coos Bay (OR) Wave Commercial 100 MW
  - P-12743 Douglas County (OR) Wave Commercial 3.0 MW
  - P-12665 N.Y. East River (NY) Tidal Pilot 0.2 MW
  - P-12680 ORPC Eastport (ME) Tidal Pilot 5.0 MW
  - P-12679 Cook Inlet (AK) Tidal Pilot 5.0 MW
  - P-12690 Admiralty Inlet (WA) Tidal Pilot 1.0 MW
  - P-12829 et al. Mississippi River Projects In-River Commercial 71 projects 7,985 MW
  - P-13247 Wilp's Hole (NJ) Tidal Pilot 0.04 MW
  - P-13305 Whitestone Poncelet (AK) In-River Pilot 0.1 MW
  - P-13015 Muskeget Channel (ME) Tidal Pilot 5.0 MW
- Projects in post-filing for license or 5-MW exemption: 3 (2,555 MW)
  - P-12713 Reedsport OPT Wave Park (OR) Wave Commercial 1.5 MW
  - P-13656 Tideworks (ME) Tidal 5-MW Exemption 0.005 MW
  - P-12611 Roosevelt Island (NY) Tidal Pilot 1.05 MW
- License Amendments issued: P-4306 Hastings Commercial In-River 0.07 MW

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## FERC Licensing Processes

FERC licensing processes for OCS hydrokinetic projects:

- Pilot Project licensing procedures;
- Integrated Licensing Process;
- Alternative Licensing Process;
- Traditional Licensing Process.

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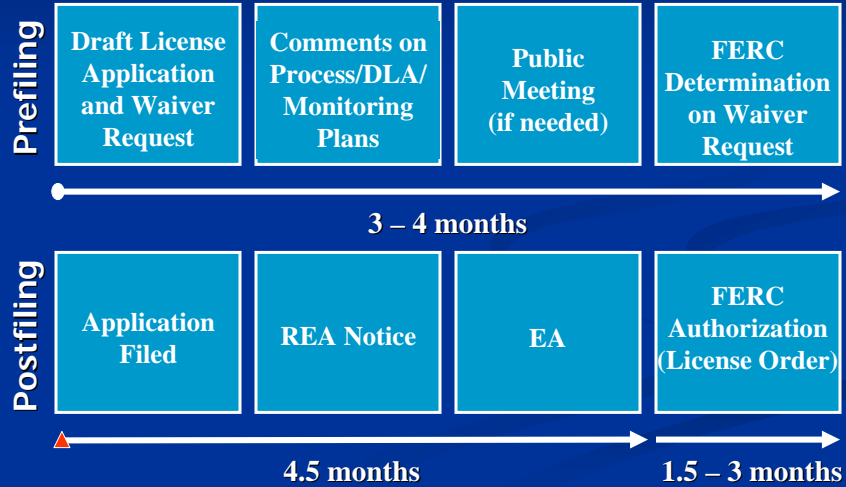


# Pilot Project Licensing Procedures

- A FERC license for a pilot project allows testing of technology and monitoring environmental effects while generating electricity.
- Characteristics of a pilot project:
  - short license term and small footprint (e.g., 5-year term, 5-MW or less)
  - not located in a sensitive area;
  - strict monitoring program to assess environmental effects and assist in information gathering for future commercial build-out project; and
  - removed, with site restored, unless licensee opts to build-out and obtain new license.
- Complete post-filing application processing and license issuance in as few as 6 months.



# Pilot Project Licensing Procedures



## FERC Pilot Project Licensing Procedures/BOEMRE Limited Lease Process Integration

- On a case-by-case basis BOEMRE's Limited Lease Process and FERC's Pilot Project Licensing Procedures could be integrated to accommodate a combined NEPA review for both BOEMRE and the Commission, resulting in expedited authorization of pilot-scale hydrokinetic projects on the OCS.

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## Commercial Project Licensing Processes

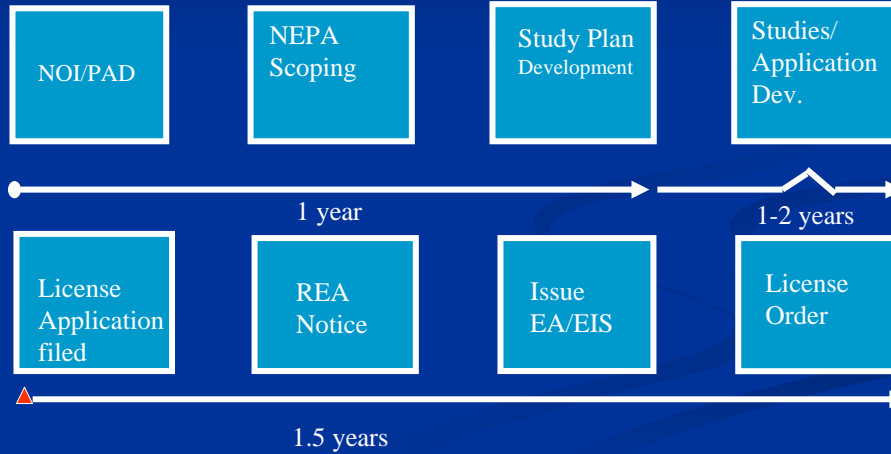
- Integrated Licensing Process (ILP) – default
- Traditional Licensing Process (TLP)
- Alternative Licensing Process (ALP)

Pre-filing	Post-filing
<ul style="list-style-type: none"> <li>■ Consult with interested parties on issues and studies</li> <li>■ Gather information</li> <li>■ Conduct studies</li> <li>■ Prepare license application</li> </ul>	<ul style="list-style-type: none"> <li>■ Seek comments from interested parties</li> <li>■ Prepare EA or EIS and seek comments</li> <li>■ Weigh all information in record before Commission decision</li> </ul>

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## Integrated Licensing Process (ILP)



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## FERC Commercial Licensing Process and BOEMRE Lease Process Integration

- FERC will not issue a license or exemption to an applicant for an OCS hydrokinetic project until the applicant has first obtained a lease, easement, or right-of-way from BOEMRE for the site.
- We are currently reviewing our guidance and working collaboratively with BOEMRE to try and streamline the process and identify areas where we can combine study processes and the required environmental review for commercial-scale marine hydrokinetic projects on the OCS.

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## FERC Licensing – Other Regulatory Requirements



### U.S. Fish & Wildlife Service

- Endangered Species Act
- Migratory Bird Treaty Act

### NOAA

- Essential Fish Habitat
- Marine Mammal Protection Act
- Endangered Species Act

### State Review

- Coastal Zone Management Act
- Clean Water Act
- National Historic Preservation Act

### U.S. Coast Guard

- Ports and Waterways Safety Act

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## Hydrokinetic MOUs between the Commission and other State and Federal Agencies

- State Agency MOUs
  - Oregon (March 2008)
  - Washington (June 2009)
  - Maine (August 2009)
  - California (May 2010)
  - Hawaii (in development)
- Federal Agency MOUs
  - Dept. of Interior (MMS) (April 2009)
  - US Army Corps of Engineers (March 2011)

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# Questions?



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