



FERC's Role in Hydrokinetics

Workshop on Leases for Wind, Wave, and
Tidal Power

April 9, 2008



Topics

- Background on FERC
- FERC Jurisdiction
- Preliminary Permits/License
- FERC Approaches to New Technologies
- Challenges and Solutions



Federal Energy Regulatory Commission



- Independent Regulatory Agency
- Five member Commission
 - Appointed by President
 - Confirmed by the Senate
 - Chairman designated by President



What FERC Does

- Electric Power
- Natural Gas
- Oil Pipelines
- Hydroelectric Projects



Mission: Regulate and oversee energy industries in the economic, environmental, and safety interests of the American public.



FERC Hydropower Jurisdiction

Federal Power Act

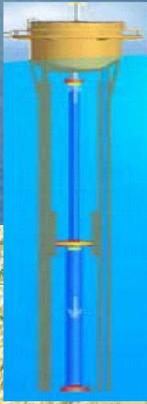
- Non-federal hydropower projects
 - located on a navigable waterway
 - occupy lands of the United States
 - use surplus water from a federal dam
 - affect interstate or foreign commerce





FERC Jurisdiction: Ocean Energy

- AquaEnergy Group (now Finavera)
 - Makah Bay Project, DI02-3, Oct. 2002/Feb. 2003

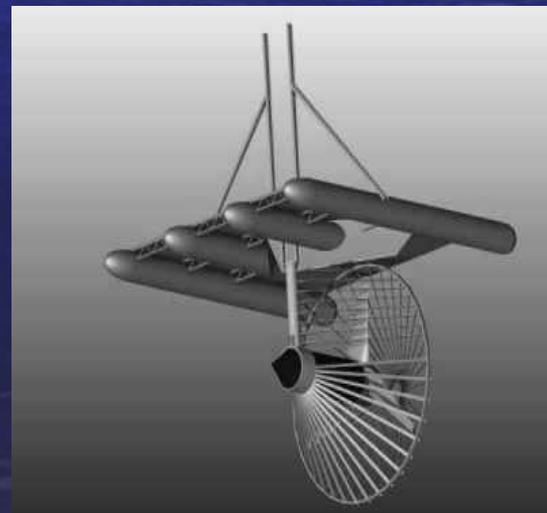


- Technology considered a hydropower project
- Located in navigable waters
- Occupies Federal Lands (Indian Reservation and National Marine Sanctuary)
- Connected to the interstate electric power system



Types of Issuances

- Preliminary permits
 - Maintains priority of application for three years
 - Conduct feasibility studies
 - Doesn't authorize construction
- Licenses
 - Authorizes construction and operation
 - Original up to 50 years
 - Relicense 30-50 years

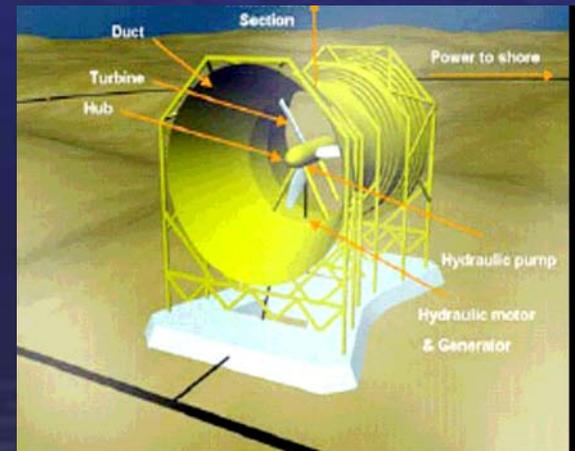




Hydrokinetic Proposals

(as of March 28, 2008)

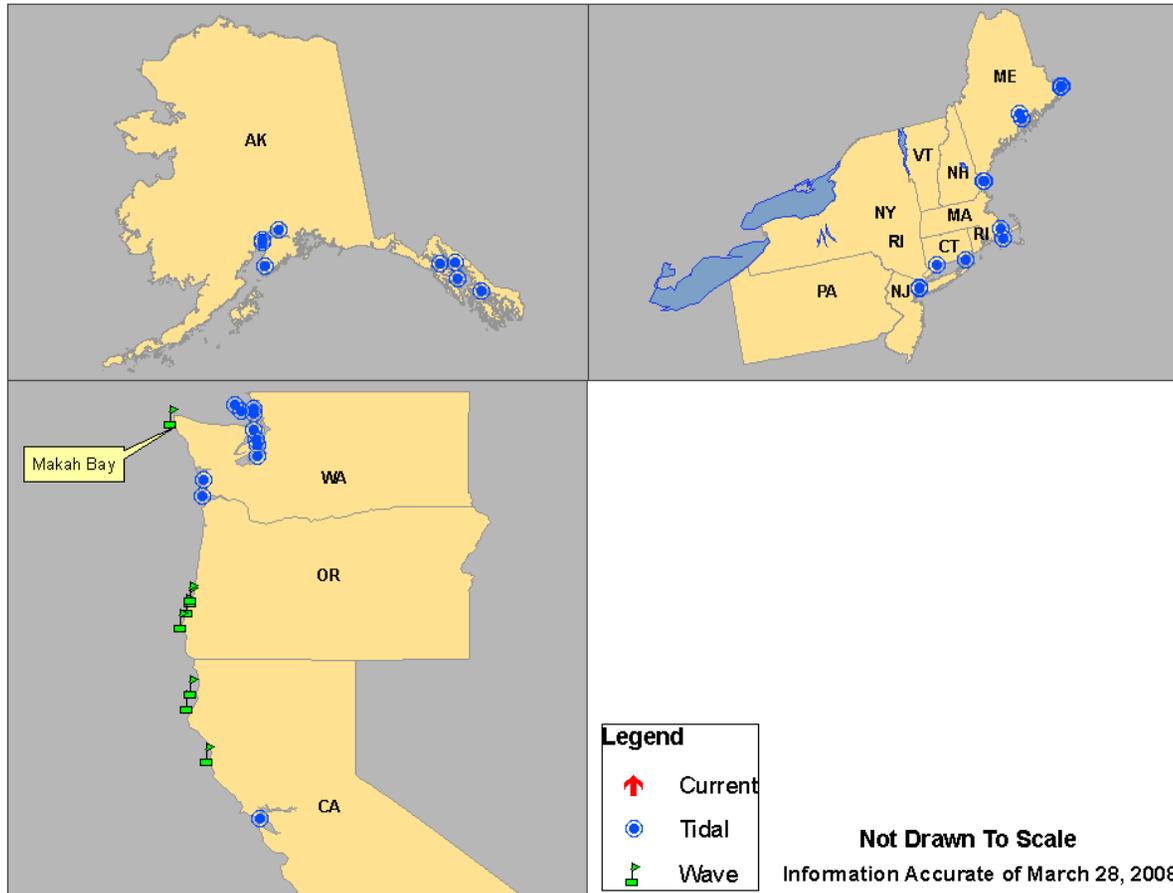
- Issued preliminary permits
 - 7 wave, 0 ocean current, 33 tidal, 57 inland
- Pending preliminary permits
 - 9 wave, 2 ocean current, 14 tidal, 30 inland
- Pre-filing license applications
 - Reedsport (OR)
 - Roosevelt Island (NY)
- License issued
 - Makah Bay (WA)





Issued Ocean Hydrokinetic Preliminary Permits and License

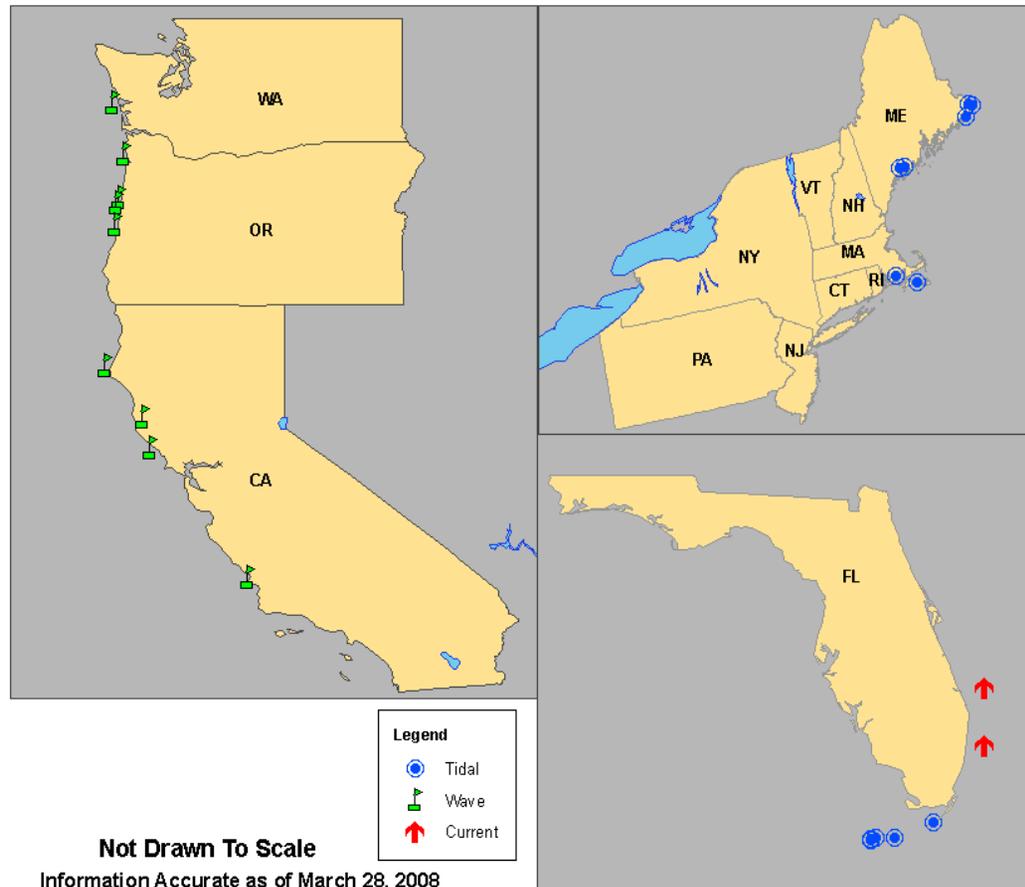
FERC ISSUED PRELIMINARY PERMITS AND LICENSE FOR CURRENT, WAVE, AND TIDAL ENERGY PROJECTS





Pending Ocean Hydrokinetic Preliminary Permits

FERC PENDING PRELIMINARY PERMITS FOR CURRENT, WAVE, AND TIDAL ENERGY PROJECTS



Not Drawn To Scale

Information Accurate as of March 28, 2008



Issued Inland Hydrokinetic Preliminary Permits

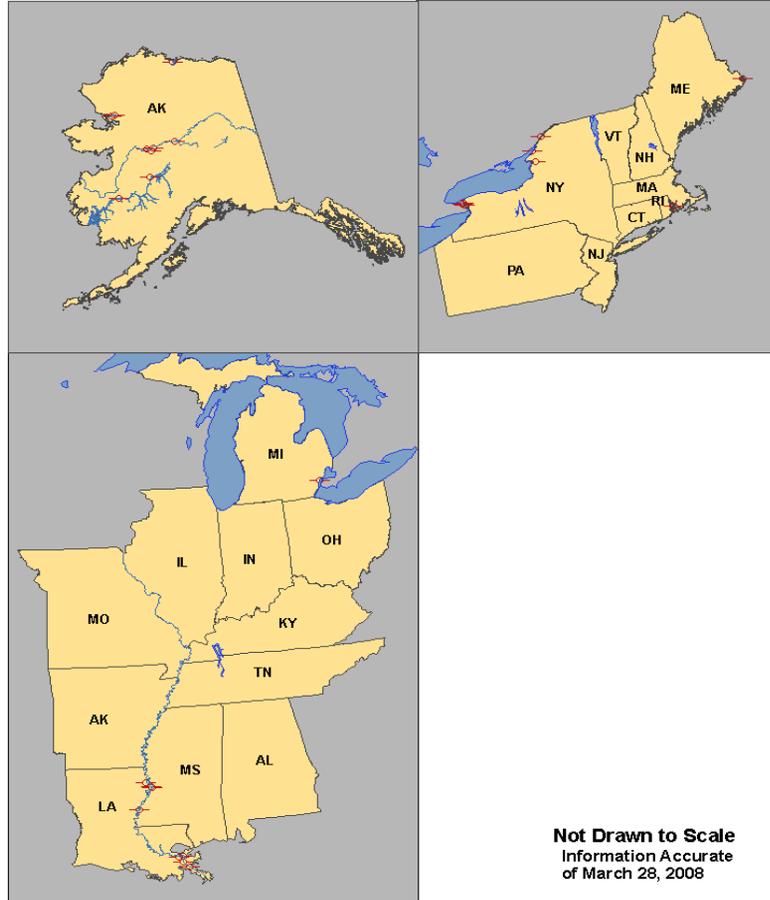
FERC ISSUED PRELIMINARY PERMITS FOR INLAND HYDROKINETIC PROJECTS





Pending Inland Hydrokinetic Preliminary Permits

FERC PENDING PRELIMINARY PERMITS FOR INLAND HYDROKINETIC PROJECTS



Not Drawn to Scale
Information Accurate
of March 28, 2008



Hydrokinetic Permits Proposed Capacity

Source	Proposed Capacity (MW) (as of March 28, 2008)	
	Issued	Pending
WAVE	350-515	1260 – 2110
OCEAN CURRENT	0	40-80
TIDAL	1020 – 3340	310 - 415
INLAND	2955	590-605
Total	4325 - 6810	2200 - 3210



Regulatory Approach

- The Commission:
 - supports the development of hydrokinetic projects and their potential to add diversity to our energy mix as a clean, renewable energy source
 - recognizes the conundrum of need for real-world testing, but difficulty of getting projects in the water under current regulatory program
- Existing, time-tested program tailored to meet the needs of new technologies
 - Preliminary permits (strict scrutiny)
 - Test projects (Verdant rule)
 - Pilot project license



Preliminary Permit Review

Strict Scrutiny – February 15, 2007

- Applications
 - Appropriately sized area
 - Details of proposed technology
- Post-issuance administration
 - Schedule of activities, including NOI/PAD
 - Semi-annual progress reports
 - Cancel permit if no progress





Test Projects

(no FERC license needed)

- Verdant Declaratory Order- April 2005, July 2005
 - Roosevelt Island Tidal Energy Project, P-12178
- No license required if:
 - Experimental technology
 - Short term installation for conducting studies
 - Test project does not transmit into, or displace power from, the national electric energy grid





Pilot Project License

Whitepaper – August 31, 2007

- Allow developers to test new technologies, evaluate sites, and monitor any environmental effects while generating electricity
- Provide for agency and public input and FERC oversight
- Complete licensing in as few as 6 months
- Guard against environmental harm
 - Short license term and small footprint
 - Monitoring
 - Project shutdown or removal if harm



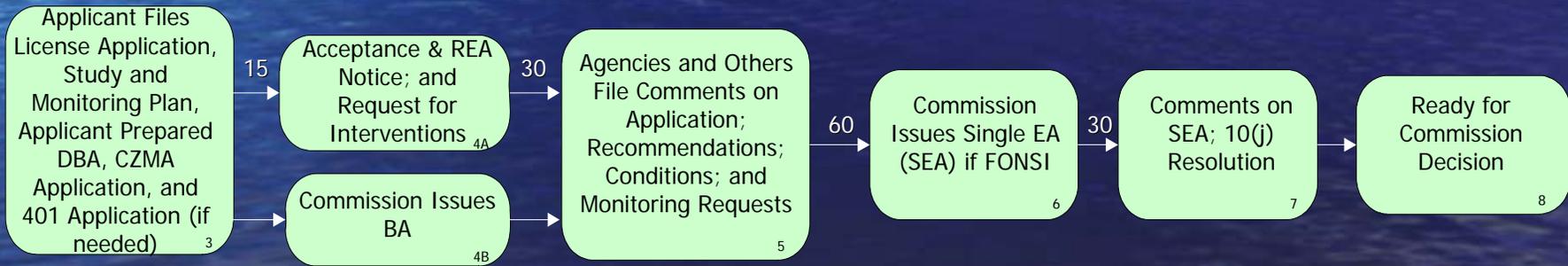


Pilot Licensing Process

Pre-Pilot License Activity



Pilot License Activity





Standard Licensing Processes

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

Prefiling:

- Consult with interested parties on issues and studies
- Conduct studies
- Prepare license application

Postfiling:

- Seek comments from interested parties
- Prepare EA or EIS and seek comments
- Weigh all information in record before Commission decision



Conditioned License

Policy Statement – November 30, 2007

- License issued pending actions by others under federal law
- Applies to hydrokinetic projects only
- No change to pre-filing and post-filing Commission activities
- No project construction until all authorizations required under federal law are obtained
- State and federal agencies fully retain authority to take action under federal laws



Challenges

To realize potential, there are significant challenges:

- Technological
- Environmental
- Regulatory
- Financial





FERC Role in Solutions

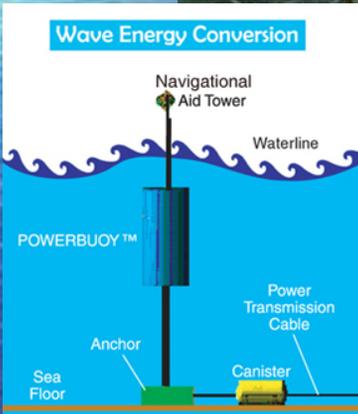
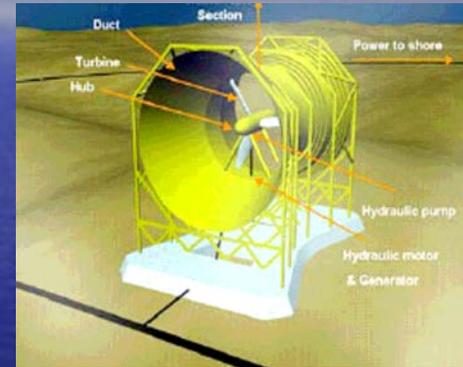
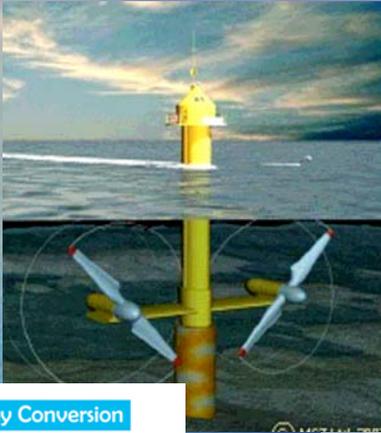
- Apply regulatory program honed over decades
- Tailor program to new context
- Foster early communication
- Engage local knowledge
- Work closely with all levels of government
- Protect environment and safety while encouraging technology development





Questions

www.ferc.gov



Ann F. Miles
Director, Division of Hydropower Licensing
202.502.6769
ann.miles@ferc.gov