



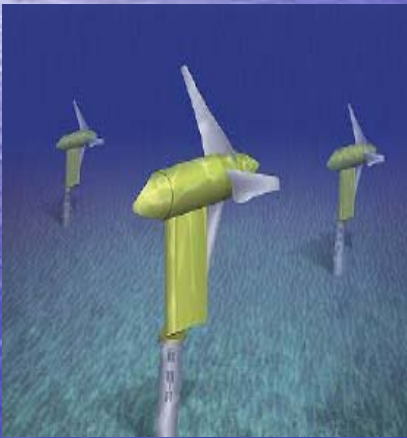
FERC's Program for Hydrokinetics

Global Marine Renewable Energy Conference
April 18, 2008



Topics

- Hydrokinetic Project Proposals - Preliminary Permits and Licenses
- FERC Approach to New Technologies



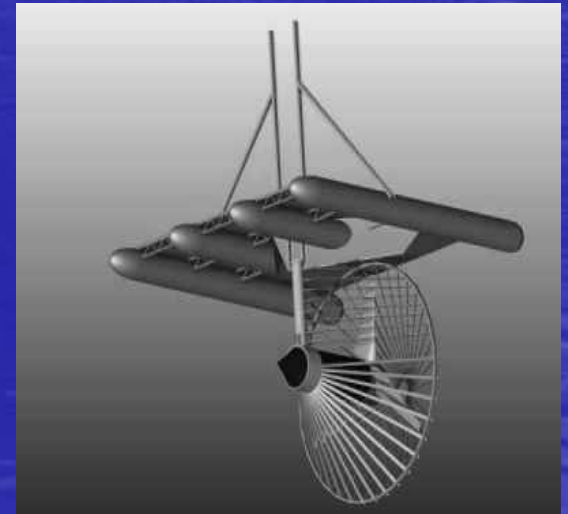
- » Preliminary Permits – Strict Scrutiny
- » Test Projects - Verdant Rule
- » Pilot Project License
- » Standard License

- Application of Approach to Makah Bay



Types of Issuances

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

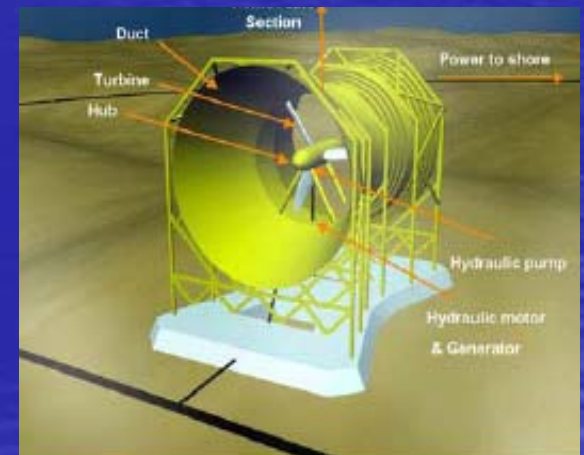




Hydrokinetic Project Proposals

(as of April 9, 2008)

- Issued preliminary permits
 - 7 wave, 0 ocean current, 32 tidal, 65 inland
- Pending preliminary permits
 - 6 wave, 3 ocean current, 11 tidal, 32 inland
- Pre-filing license applications
 - Reedsport (OR)
 - Roosevelt Island (NY)
 - Coos Bay (OR)
- License issued
 - Makah Bay (WA)





Hydrokinetic Permits Proposed Capacity

Source	Proposed Capacity (MW) (as of April 9, 2008)	
	Issued	Pending
WAVE	350-510	730 – 920
OCEAN CURRENT	0	70-155
TIDAL	900 – 2645	300 – 415
INLAND	3020	985-1005
Total	4270 - 6175	2085 - 2495



Regulatory Approach

- The Commission:
 - supports the development of hydrokinetic projects
 - recognizes the conundrum of need for real-world testing, yet limited information to prepare application
- Tailored existing program 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





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



Makah Bay Project

P-12751

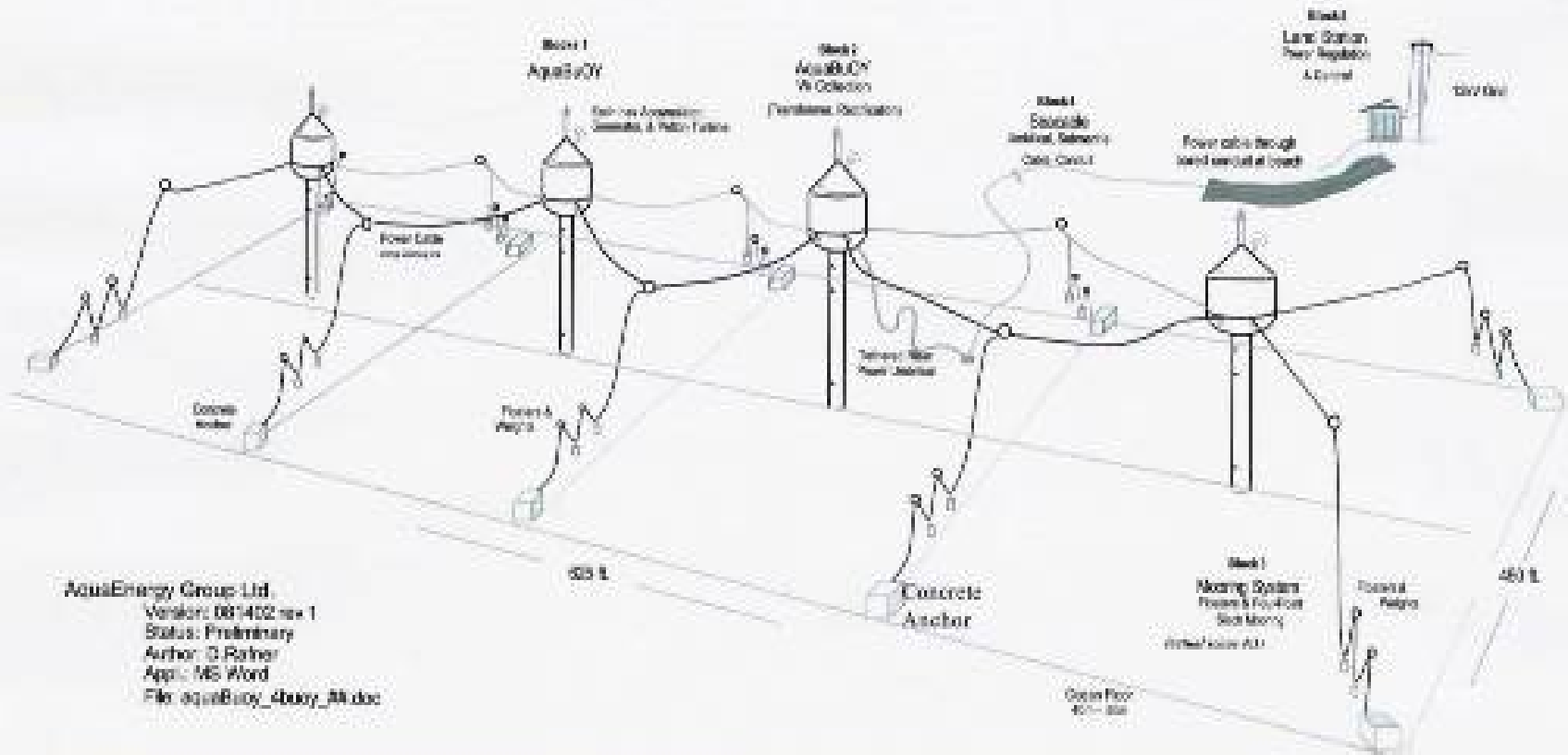
- Project:
 - Located about 1.9 nautical miles off WA coast
 - Four, 250-kW wave buoys arranged in an array 60 feet wide by 240 feet long
 - 3.7-mile-long submarine transmission cable connecting buoys to a shore station
- Application filed November 2006
- Environmental assessment issued May 2007
 - Site-specific and cumulative effects



Makah Bay Project Buoys

*Appendix 1 of Makah Bay Configuration of
Offshore Turbine and Generator*

*Dimensions and distances are to center
Refer to block descriptions for details*



AquaEnergy Group Ltd.
Version: 001402 rev 1
Status: Preliminary
Author: G.Patner
App: MS Word
File: aquaBuoy_Abuoy_01.doc



Makah Bay Project Resources and Potential Effects

- Fish*, marine mammals* (disturbance, entanglement, collision, noise, EMF)
- Seabirds (disturbance, entanglement)
- Marine benthic habitat (disturbance, loss)
- Water quality (turbidity, chemical toxicity)
- Recreation*, navigation, fishing, aesthetics, socioeconomics (use and user conflicts)
- Cultural (monitoring archeological sites)



Makah Bay Project License

- Conditioned license issued December 2007
- Other authorizations received early 2008
- License amended March 2008 to authorize onsite construction and installation
- Onsite construction and installation may begin after receiving FERC approval of final design drawings and installation methods, and various plans for monitoring project effects on fish, marine mammals, and seabirds



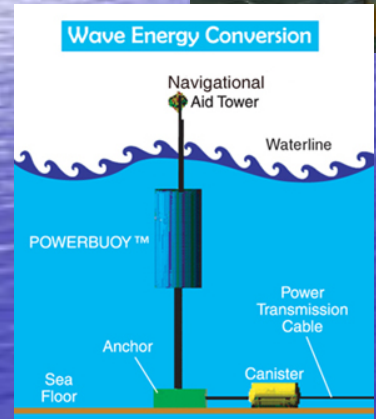
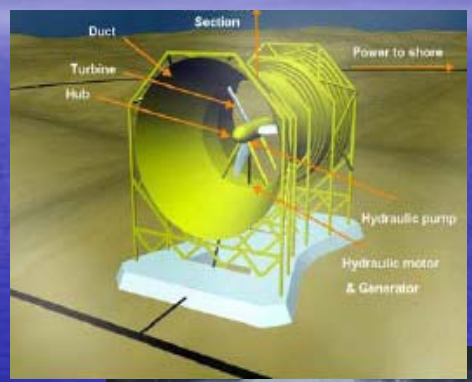
Next Steps

- Project specific
 - Participate in pre-filing and process applications
- Programmatic
 - Update pilot project guidance
 - Coordinate with agencies (MOUs, etc)
 - Continue outreach
 - Consider additional strategies for issues that may arise as we gain experience with regulation, technology, industry, and knowledge base



Questions

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