

New Technologies Spotlight: Wave Energy

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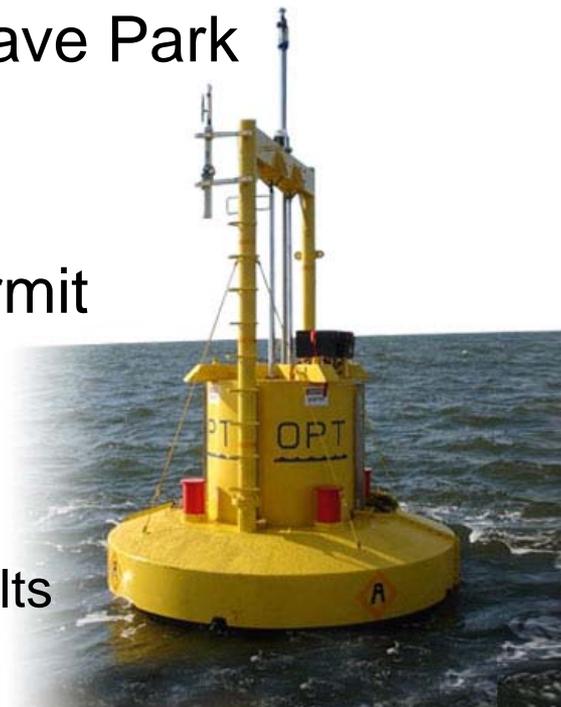
Wave Energy Update

- What's new?
 - Recent application for wave project license
 - Other wave energy project updates
 - Marine spatial planning
- What do we need?
 - Flexibility in Marine Spatial Planning
 - Phased Development
 - Proportionate requirements
 - Streamlined OCS permitting

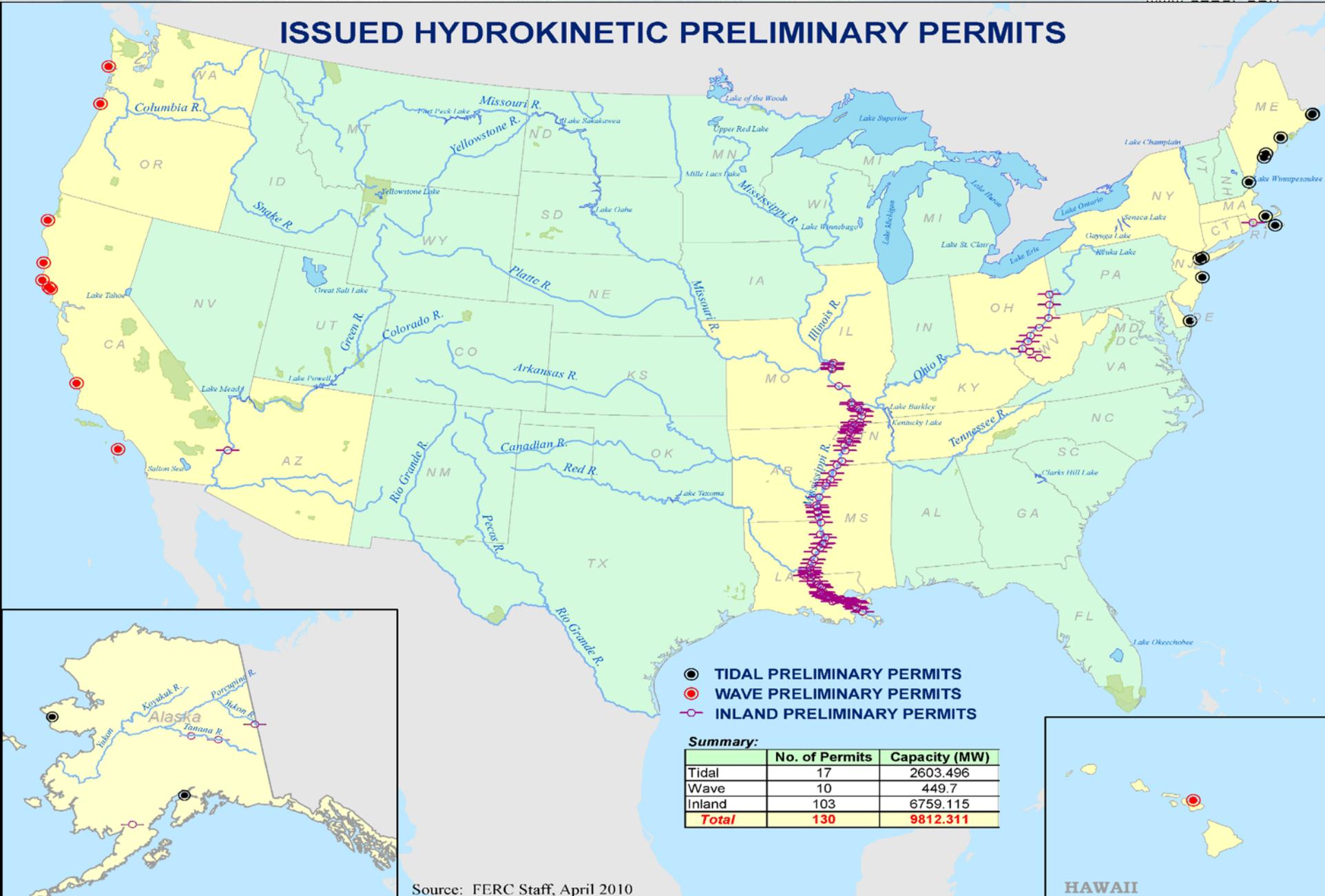


License application filed (Jan. 2010)

- Ocean Power Technologies' Reedsport Wave Park
- Application for 10 buoys, 1.5 MW
- 35-year license
- Also submitted subsequent preliminary permit application for surrounding area
- Application based on settlement terms
 - Comprehensive studies
 - Process for reviewing, responding to study results
- Settlement in final review stages
- First buoy in construction at Oregon Iron Works



ISSUED HYDROKINETIC PRELIMINARY PERMITS



- TIDAL PRELIMINARY PERMITS
- WAVE PRELIMINARY PERMITS
- INLAND PRELIMINARY PERMITS

Summary:

	No. of Permits	Capacity (MW)
Tidal	17	2603.496
Wave	10	449.7
Inland	103	6759.115
Total	130	9812.311

Source: FERC Staff, April 2010

HAWAII

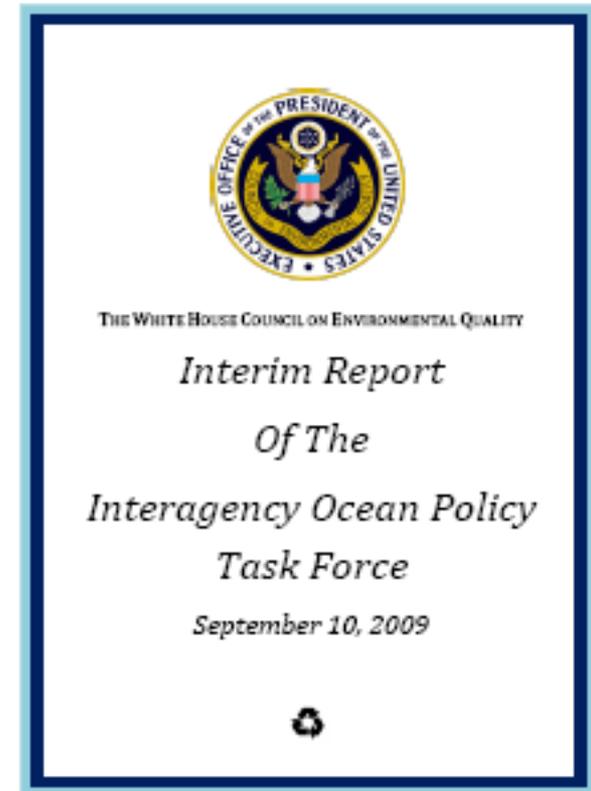
Ocean Policy and Planning

- Interagency Ocean Policy Task Force est. June 2009
 - 24 senior policy-level officials; led by CEQ chair
- Charged with developing a national policy to:
 - protect ocean health
 - enhance sustainability of coastal economies
 - prioritize accountability and stewardship responsibilities
- Charged with developing framework for coastal and marine spatial planning (CMSP).

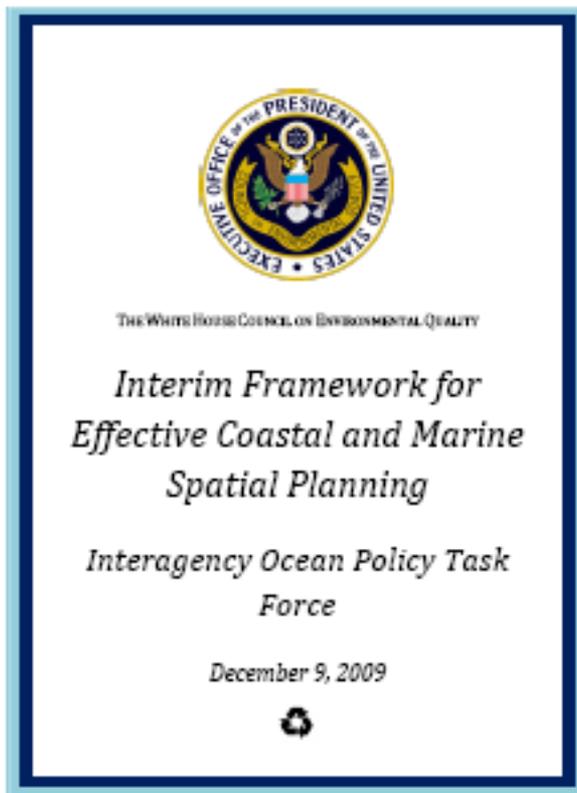
National Policy

- (1) Protect, maintain and restore health and biological diversity of ecosystems using best available science and adaptive management
- (2) *Support sustainable, safe, secure and productive uses of oceans, coasts and Great Lakes*
- (3) Increase scientific understanding of ecosystems and relationships to human activities

Recommends establishing National Ocean Council (NOC) to set and implement national priorities and implementation objectives



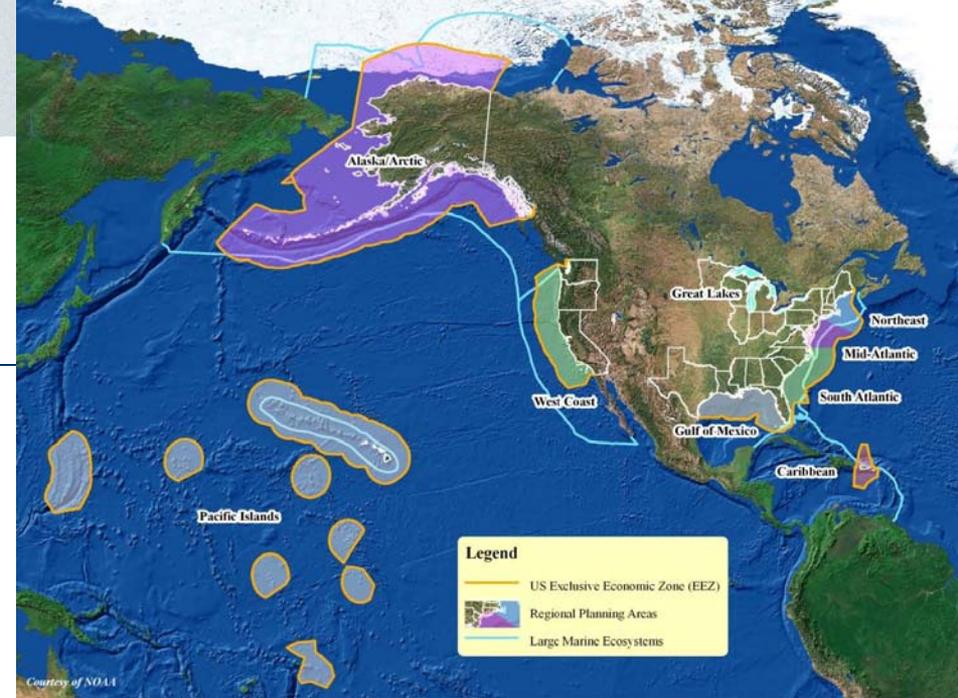
Coastal and Marine Spatial Planning



“CMSP is a comprehensive, adaptive, integrated, ecosystem-based, and transparent spatial planning process, based on sound science, for analyzing current and anticipated uses of ocean, coastal and Great Lakes areas. CMSP *identifies areas most suitable for various types or classes of activities* in order to reduce conflicts among uses, reduce environmental impacts, facilitate compatible uses, and preserve critical ecosystem services to meet economic, environmental, security and social objectives.”

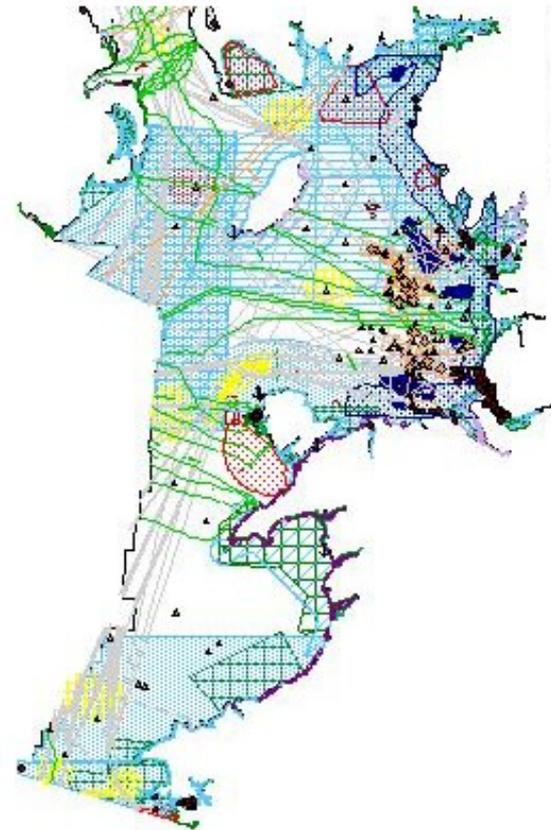
What is it *really*?

- 9 regional plans
- Coast line to limits of the EEZ and Continental Shelf.
- Developed by regional planning bodies (Fed, State, tribal reps)
- Identify range of future uses, compare tradeoffs and cumulative effects as a basis for planning decisions
- Release draft plans for public comment; NOC confirms consistency with national policy; plans to adapt to changes
- Up to 8 years for all plans to be certified
- Does not supersede existing laws -- CMSP intended to inform choices under existing regulatory processes
- May not resolve all conflicts



What do we need?

- In marine spatial planning:
 - Be flexible; no “zoning”
 - Focus on providing information to inform developer siting choices, agency decisions
 - Fund research to fill information gaps



Marine spatial planning in the Irish Sea

What do we need?

- Allow and Encourage Phased Development
 - Licenses, regulatory approvals should cover incremental expansion
 - Avoid competition over expansion areas
 - Avoid lengthy amendment process for planned expansion
 - Resource laws do not require perfect information, and often look far into the future
 - New approvals, new NEPA may be required where new information changes analysis (but that's always the case)

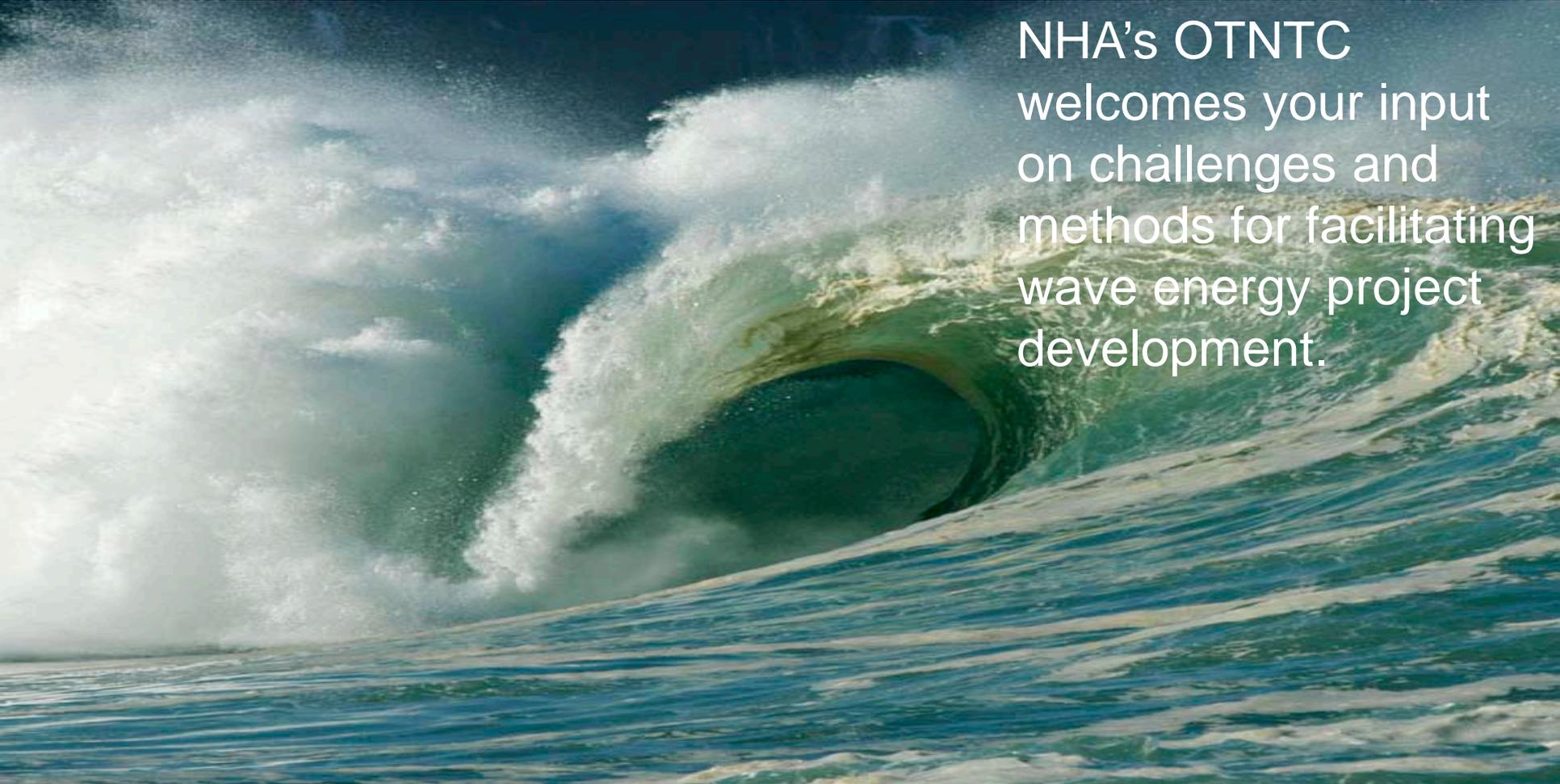


What do we need?

- Study, monitoring and mitigation requirements should be proportionate to project's likely impact
 - Pilot or demonstration projects pose limited risks
 - Consider limited size, short project duration, ability to remove structures
 - Laws do not require unreasonable measures; use best professional judgment and sound reasoning.

What do we need?

- Streamline Outer Continental Shelf Permitting
 - 2009 MOU and Guidelines by MMS and FERC
 - Still no wave projects proposed on OCS
 - Need agency commitment to streamline (e.g. NEPA)
 - Need commitment to assist first wave projects to minimize process costs



NHA's OTNTC
welcomes your input
on challenges and
methods for facilitating
wave energy project
development.

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