

# Update on the Marine and Hydrokinetic Energy Testing Needs and Capabilities Assessment

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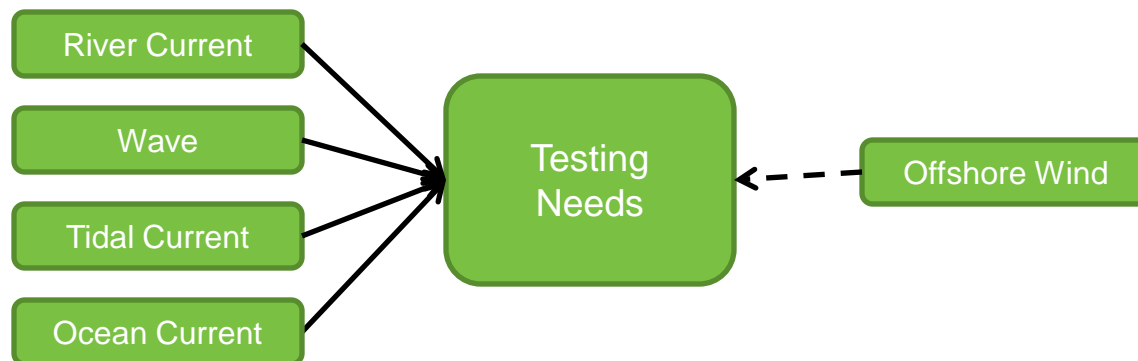


## Background:

- The US marine and hydrokinetic power industry is very active with many technologies under development and being deployed in the US aimed at harnessing MHK resources
- Technology testing is absolutely crucial to advancing technology readiness of MHK technologies, as well as understanding potential environmental effects and answering key regulatory questions.
- Testing will range from initial bench studies at early stage development to full-scale open water testing at later stages.
- A robust domestic testing infrastructure is needed to support and accelerate MHK technology progression towards commercial readiness.
- To fully gauge the present capabilities and readiness of existing testing infrastructure and identify needed capabilities, a holistic, systematic and thorough analysis is needed.

## Objectives:

- Assess, quantify, and analyze present and future near-term (2011 - 2020) laboratory and in-water testing needs/requirements for the wave, tidal current, river current and open-ocean current technologies likely to be deployed in the US.
- Determine testing synergies and difference across technologies and resources.
- Assess, quantify and analyze the present and future near-term (2011 - 2020) US laboratory and in-water testing capabilities relevant to wave, tidal current, river current and open-ocean current technologies.
- Map MHK technology testing needs to existing and planned test facilities in the US.
- Identify and analyze gaps in domestic testing infrastructure that need to be filled to achieve a complete and robust domestic capability.
- Perform a critical path analysis of need MHK testing facilities.



## Project Overview and Status:

- Information gathering is complete (but additional data is always welcome) – over 120 technologies and testing facilities were included
- Testing needs and facilities analysis is complete
- Gap analysis is complete
- Initial draft complete, working on revisions
- Internal NREL and DOE review still needed

**\*\* Thank you for all the feedback and comments!**

