REFERENCE	
Title:	US Marine and Hydrokinetic Renewable Energy Roadmap
Date:	Nov 2011
Author:	Ocean Renewable Energy Coalition
Funded by:	US Department of Energy
Hard copy reference:	
URL:	http://www.oceanrenewable.com/wp-content/uploads/2011/05/MHK-Roadmap-Final-November-2011.pdf
Date accessed:	21/02/2014
Web Format:	pdf
IEA topics covered	Ocean Energy
Geographical focus:	United States
Brief Abstract:	This roadmap identifies the eight key areas for key research and development in the US ocean energy sector, in order to achieve 2030 commercialisation and installation targets.

OUTPUTS	
Short Report?	
Major report?	yes
Visualisations?	
Information held on dedicated software?	
- which package?	

ARCHITECTURE	
Timescales used:	2011-2030
Trends and drivers?	yes
- list	Technical research & development; policy; siting and permitting; environmental research; market development; economic and financial issues; grid integration; education and workforce training
Enablers?	yes
- list	Need for more RD&D experience; Need to work cooperatively with communities and stakeholders; need to work collaboratively with other agencies to develop regulation and policy frameworks; job creation will result from educated workforce and development of policies/framework and deployments
Performance measures/targets?	yes
- list areas	Phase 1 includes technology demonstration and pilot projects from 100kW to 5 MW. Phase 2 consists of pilot projects (5 MW) transitioning to small commercial arrays

	(50 MW). Phase 3 focuses on small arrays (50 MW) with a transition to large, utility-scale arrays (100 MW).
Mapping of RD&D activities?	yes
Critical assessment of capabilities?	

PROCESS	
Methods used:	
- Desk study?	yes
- Consultation	yes
- Interviews?	yes
- Facilitated workshop(s)	yes
- Working groups/task force	Yes
- Integrated Process	yes
Stakeholders engaged:	
– **University based researchers**	Yes
– **Other public sector researchers**	Yes
– **Business – technology**	Yes
– **Business – other**	Yes
– **Government - energy**	Yes
– **Government – SET**	
– **Government – other**	
– **NGOs**	yes
No of people engaged:	
Budget (if known):	
Commitment to re-visit?	yes

ACTIONS IDENTIFIED	
List of actions?	yes
Actions listed according to timescale?	yes
Actions prioritised?	Yes
Sequencing/dependencies identified?	No
Responsibility for actions identified?	No
Types of actions identified:	
- Basic research?	yes
- list areas	Lifecycle and manufacturing processes; cost reduction; policy and regulatory framework;environmental policy
- Applied research?	
- list areas	Seabed attachments; engineering design; power takeoff and control
- Development & demonstration	yes
- list areas?	Testing infrastructure; installation, O&M; grid integration
- Other types of action?	
- list other types	

This Roadmap Characterisation was compiled by Samantha Quinn of the University of Edinburgh in March 2014

Hydropower in the USA. Hydrokinetic and Marine Power. Renewable Energy: Geothermal. Geothermal District Heating in Iceland. Energy Storage Technologies.Â Hydrokinetic technologies have come to the forefront of renewable energy research and development in recent years. The power of tides, currents, and waves represent underdeveloped potential sources of energy. Water is far denser than air, and sea water is roughly 800 times denser than air; this fact alone makes the potential power of hydrokinetic energy an opportunity that canâ€™t be ignored. Hydrokinetic Energy.Â For more on freshwater tidal energy systems, as well as hydroelectric dams, please see Green City Timesâ€™ article on hydroelectricity. A 2011 â€œMarine and Hydrokinetic Renewable Energy Roadmapâ€ prepared by the U.S. marine and hydrokinetic energy trade association identified eight primary project factors that affect the success of commercial projects. Of those, half did not relate to the technology, but were socio-economic factors: policy issues, market development, economic and financial issues, and education and workforce training.Â Projects like this may soon enable us to tap the vast potential of marine renewable energy resources and deliver clean electricity to Floridians. To Learn More About Marine Hydrokinetic (Blue) Energy. And as we said before, a particular law might be narrow in focus, making it both simple and sensible to move it wholesale into a particular slot in the Code. But this is not normally the case, and often different provisions of the law will logically belong in different, scattered locations in the Code. As a result, often the law will not be found in one place neatly identified by its popular name. Nor will a full-text search of the Code necessarily reveal where all the pieces have been scattered. Instead, those who classify laws into the Code typically leave a note explaining how a particular law has been classified into the Code. It is usually found in the Note section attached to a relevant section of the Code, usually under a paragraph identified as the "Short Title". How the LII Table of Popular Names works. Marine and Hydrokinetic Renewable Energy Roadmap - USA (2011). The Roadmap presents schedules for action on federal investments in technology research and technical information research and development along with public policy reforms necessary t 2012-12-06 | Ocean Renewable Energy Coalition. Download document.Â 2012-12-06 | British Embassy Santiago, ErrÃ¡zuriz & Asociados Ingenieros, University of Edinburgh. Download document. European Ocean Energy Roadmap 2010-2050. The Roadmap for the development of the ocean energy industry in Europe provides a set of steps which, once implemented, would facilitate exploitation of the vast European ocean energy 2012-12-05 | European Ocean Energy Association. Download document. New York State Energy Research and Development Authority. Marine and Hydrokinetic Environmental Policy Workshop. Marine and Hyrdrokinetic Technology Background and Perspective for New York State. Final Report.Â Hydrokinetic power generation from river and tidal currents represents substantial potential as a renewable energy generation resource for New York State that in some cases can be co-located with energy consumers. Technology development efforts and ongoing environmental monitoring of a permitted hydrokinetic generation pilot site in New York State, the Verdant Power Roosevelt Island Tidal Energy (RITE) Project, located in the East River in New York City is ongoing.