



Assessment of U.S. Energy Wave Resources

Cooperative Research and Development Final Report

CRADA Number: CRD-09-328

NREL Technical Contact: George Scott

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CRADA Report
NREL/TP-7A10-53849
June 2012

Contract No. DE-AC36-08GO28308

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In accordance with Requirements set forth in Article XI.A(3) of the CRADA document, this document is the final CRADA report, including a list of Subject Inventions, to be forwarded to the Office of Science and Technical Information as part of the commitment to the public to demonstrate results of federally funded research.

CRADA number: CRD-09-328

CRADA Title: Assessment of U.S. Energy Wave Resources

Parties to the Agreement: EPRI

Joint Work Statement Funding Table showing DOE commitment:

Estimated Costs	NREL Shared Resources
Year 1	\$ 00.00
Year 2	\$ 00.00
Year 3	\$ 00.00
TOTALS	\$ 00.00

Abstract of CRADA work: In terms of extractable wave energy resource for our preliminary assessment, the EPRI/National Renewable Energy Laboratory (NREL) assumed that 15% of the available resource could be extracted based on societal constraints of a 30% coverage of the coastline with a 50% efficient wave energy absorbing device. EPRI recognizes that much work needs to be done to better define the extractable resource and we have outlined a comprehensive approach to doing this in our proposed scope of work, along with specific steps for refining our estimate of the available wave energy resources.

Summary of Research Results:

The total available wave energy resource along the U.S. continental shelf edge is estimated to be 2640 TWh/yr. This represents a 26% increase over the resource estimates in EPRI’s 2004 study. A regional breakdown of the resource is given in the final report, which is at http://my.epri.com/portal/server.pt?Abstract_id=00000000001024637. The report also presents estimates of the technically recoverable resource. NREL has created a publically-accessible GIS interface to the data (http://maps.nrel.gov/mhk_atlas) to allow users to explore the wave resource estimates in detail.

Subject Inventions listing: None

Report Date: December, 2011

Responsible Technical Contact at Alliance/NREL: George Scott

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