

Exceptional service in the national interest



Opportunity for Collaboration

Jesse Roberts
Water Power Technologies



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Sandia Sites

Albuquerque, New Mexico



Livermore, California



Kauai, Hawaii



*Waste Isolation Pilot Plant,
Carlsbad, New Mexico*

*Pantex Plant,
Amarillo, Texas*



*Tonopah,
Nevada*

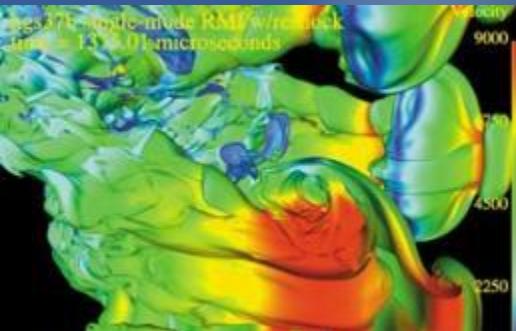


Strong Research and Engineering Foundation

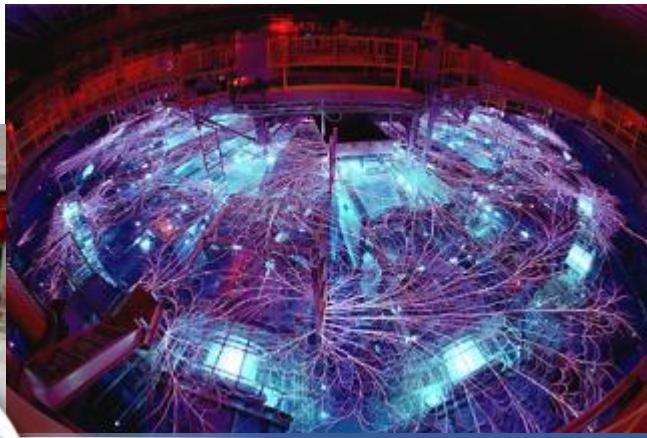
Computing & Information Sciences



Engineering Sciences

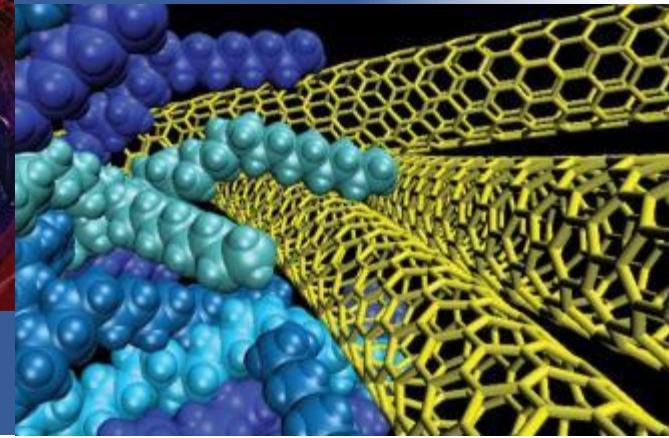


Bioscience

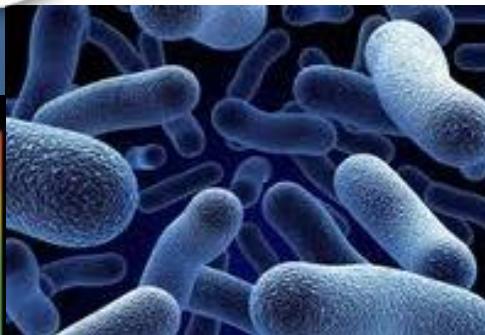


Radiation Effects & High Energy Density Science

Materials Sciences



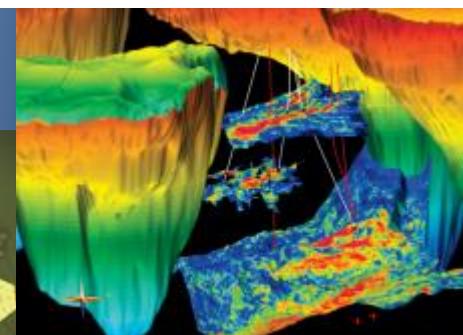
Engineering Sciences



Nanodevices & Microsystems



Geoscience



Energy & Climate

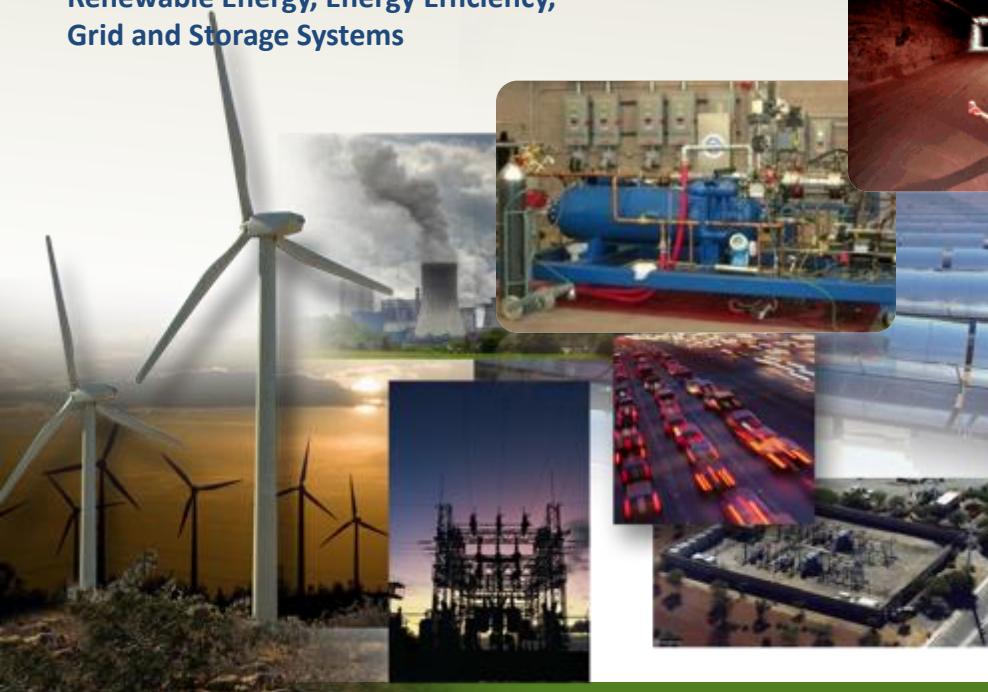


Energy Research

ARPAe, BES Chem Sciences, ASCR, CINT, Geo Bio Science, BES Material Science

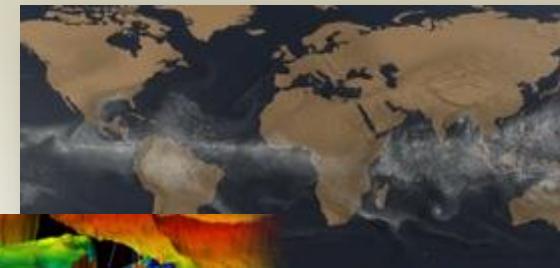
Renewable Systems & Energy Infrastructure

Renewable Energy, Energy Efficiency, Grid and Storage Systems



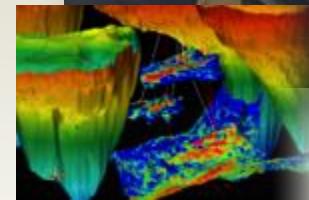
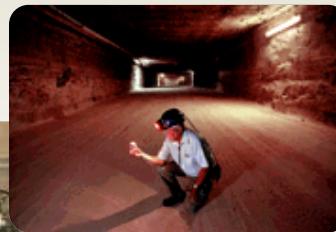
Climate & Environment

Measurement & Modeling, Carbon Management, Water & Environment, and Biofuels



Nuclear Energy & Fuel Cycle

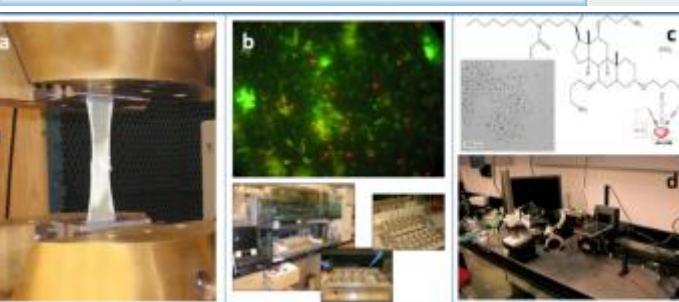
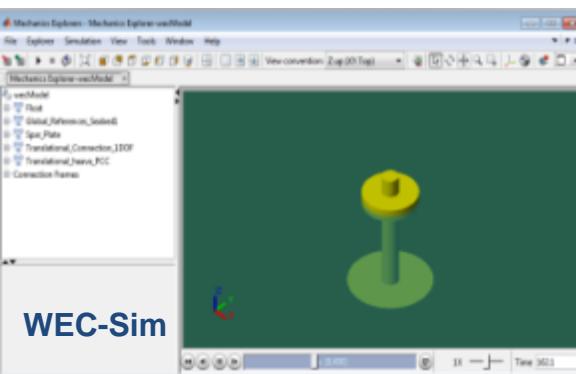
Commercial Nuclear Power & Fuel, Nuclear Energy Safety & Security, DOE Managed Nuclear Waste Disposal



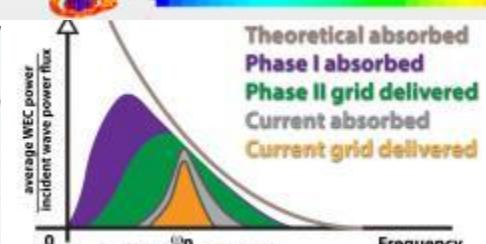
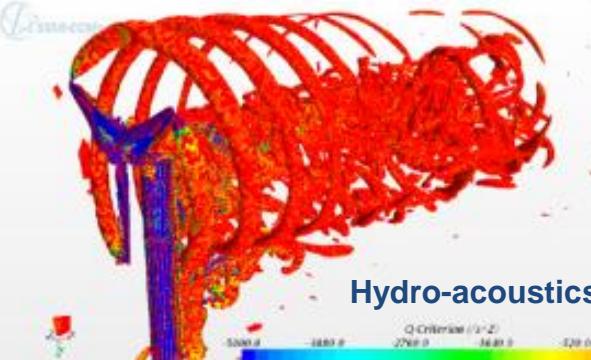
Transportation Energy & Systems

Vehicle Technologies, Biomass, Fuel Cells & Hydrogen Technology

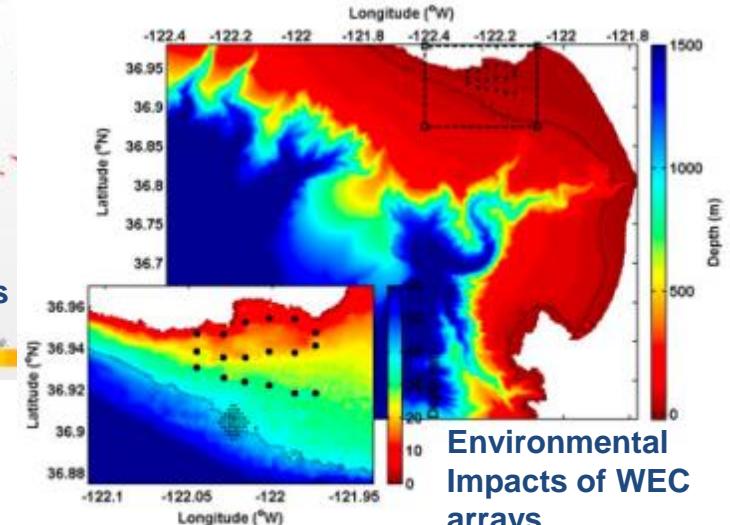




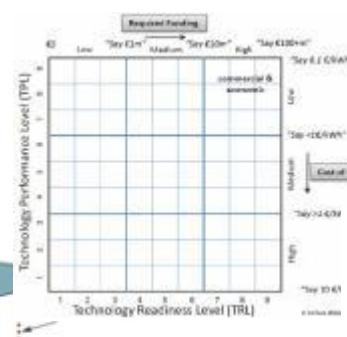
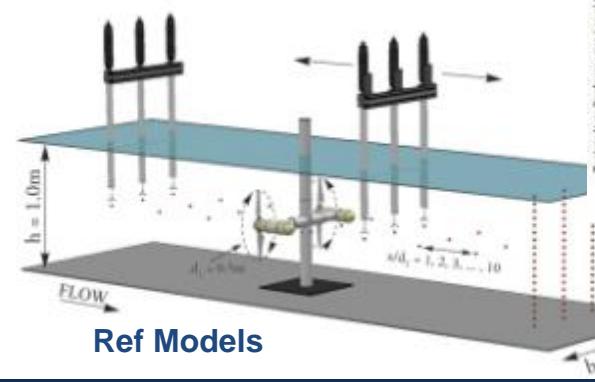
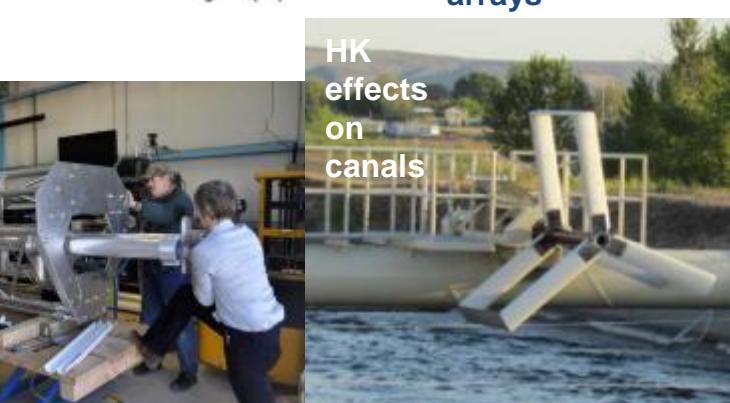
Structural Composites and Material Coatings



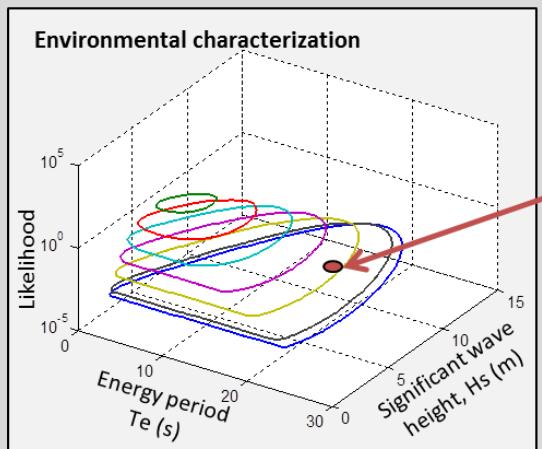
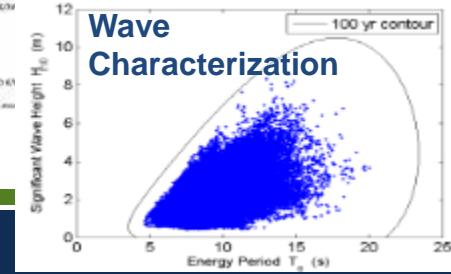
Resilient Non-linear Controls



Environmental Impacts of WEC arrays

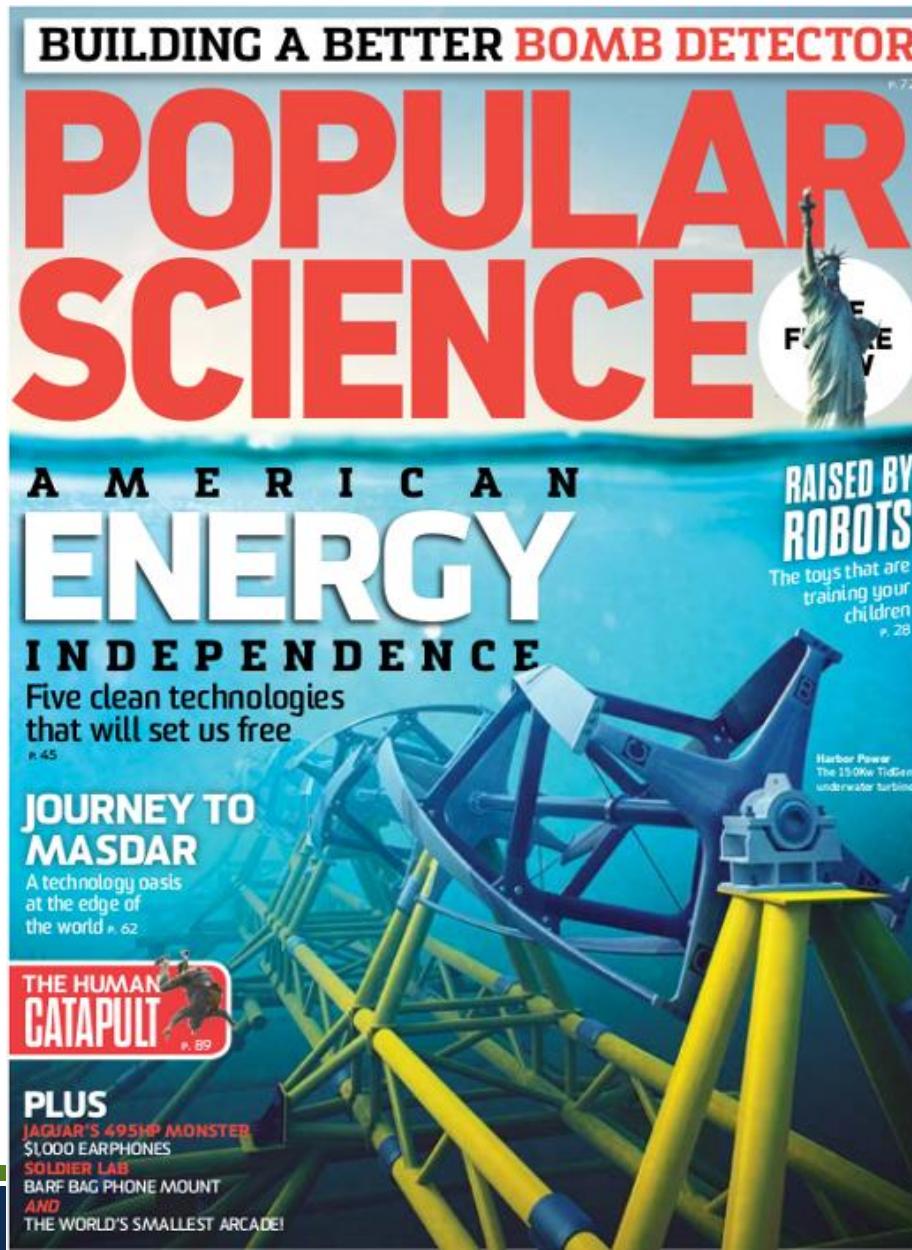


TPL-TRL Structured Innovation



Extreme Conditions Modeling

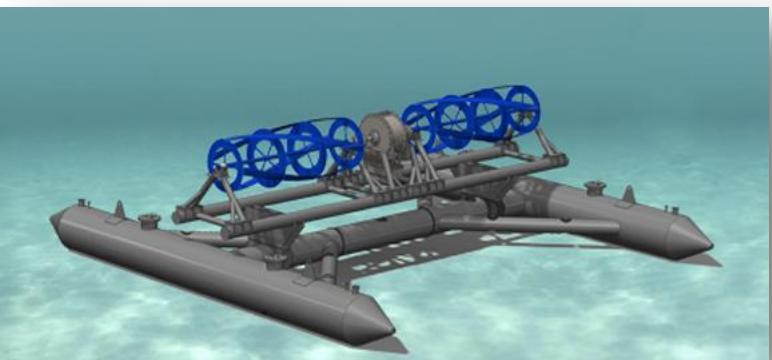
Recent Example of “SBV-like” Collaboration



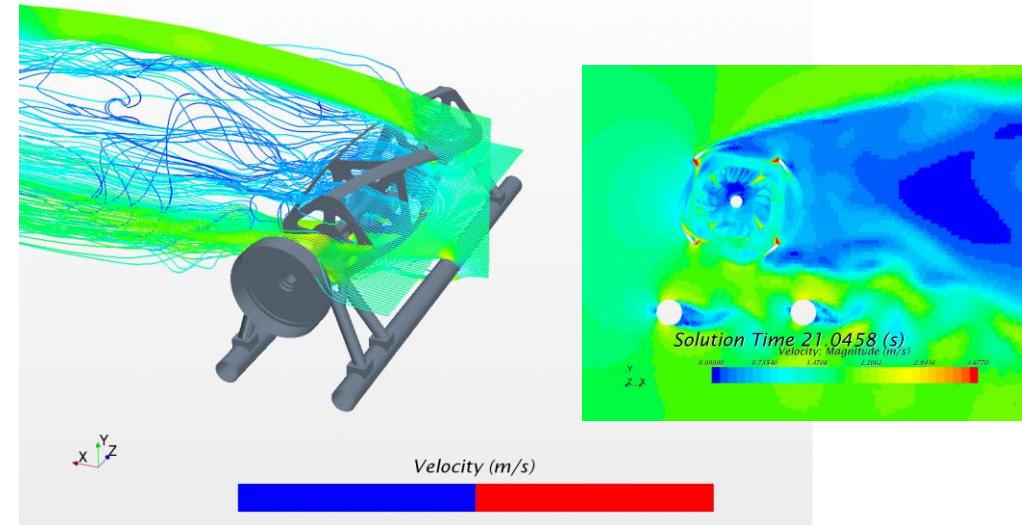
Field testing of ORPC's RivGen® prototype turbine was not matching performance values predicted from ORPC simulation

ORPC approached DOE/Sandia to identify the cause of the mismatch

Quick Leveraging of Existing Capabilities



Sandia leveraged HPC and expertise from past wind energy research



Identified fundamental simulation limitation,
ORPC now redesigning product

Photo courtesy of
Ocean Renewable Power Company

Summary

- The Small Business Voucher program provides the most direct mechanism to date for industry-national laboratory collaboration.
- Sandia has capabilities in technology development, resource characterization, and environmental impacts
- Contact for further information / discussion

Daniel Laird

Program Manager

Water Power Technologies

Marine Hydrokinetics and Hydropower

Sandia National Laboratories

Albuquerque, NM, USA 87185-1124

(505) 844 6188

Daniel.Laird@sandia.gov