

DOE Reference Model Project

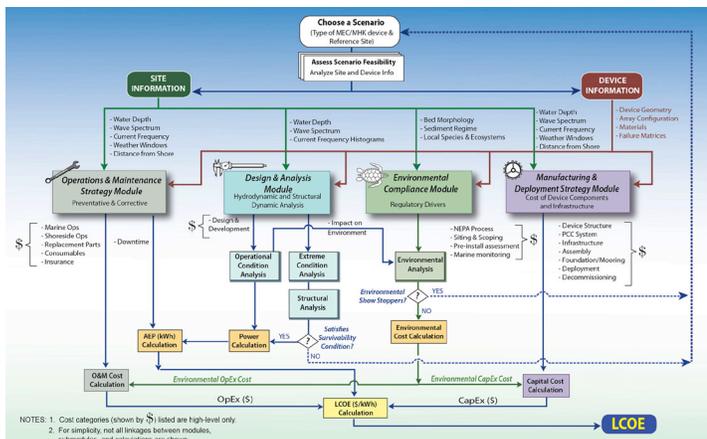
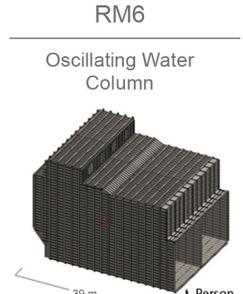
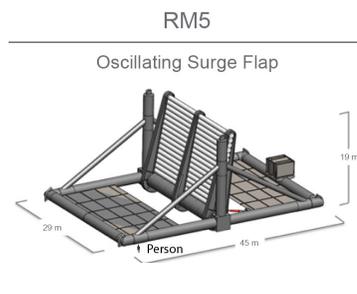
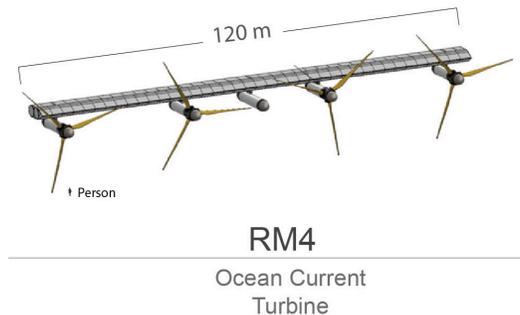
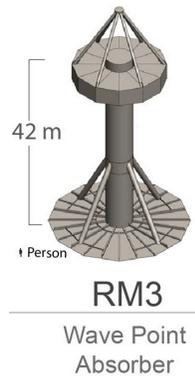
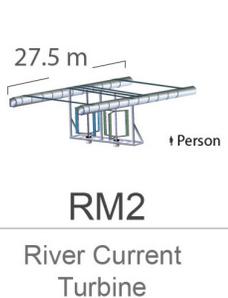
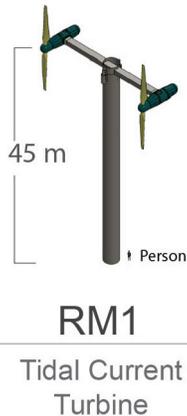
The Reference Model Project (RMP) launched six open-source marine hydrokinetic (MHK) technology point designs as reference models to benchmark performance and costs for industry developers.

These open-source products, along with supporting documentation, are available at the RMP website <http://energy.sandia.gov/rmp> to facilitate their use in future R&D studies by industry, academia, and national laboratories. Open-source products developed by the RMP include:

1. A detailed methodology for design and analysis of MHK devices and estimation of capital and operational costs, and levelized cost of energy (LCOE);
2. Design specifications and SolidWorks™ geometry files for each reference model device to allow exact replication for physical and numerical modeling studies;

3. Reference resource site information for designing MHK devices;
4. Physical model data sets for validating design modeling tools;
5. Spreadsheets with cost breakdown structures for calculating the LCOE for single devices and multiple unit arrays;
6. Logic models that provide environmental compliance requirements and methods for estimating their costs.

RMP products are also intended to be used by other MHK stakeholders such as government agencies to inform decision making and permitting-process development.



Methodology for design, analysis, and LCOE estimation for MHK technologies.

Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000. SAND2015-3054M.

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