# WAVE ENERGY PRIZE

### What is the Wave Energy Prize?

In the United States, waves, tides, and ocean currents represent a largely untapped renewable energy resource that could provide clean, affordable energy to homes and businesses across the country.

-- Jose Zayas Director, Wind and Water Power Technologies Office U.S. Department of Energy The Wave Energy Prize is a public prize competition sponsored by the U.S. Department of Energy which aims to achieve game-changing improvements in the efficiency of wave energy conversion (WEC) devices by capturing more energy from ocean waves. Such technological innovations will reduce the cost of wave energy and make it more competitive with traditional energy solutions.

Wave energy is one of the forms of marine energy, along with tidal energy and energy recovered from ocean currents. Wave energy captures the energy in highly predictable ocean waves and is in the early stages of technological development.

The Department of Energy is investing in wave energy and is offering prize purses totaling more than **\$2 million** for this challenge. Additionally, the **Wave Energy Prize** will provide up to **\$125,000** in seed funding to the finalists.

Participants in the **Wave Energy Prize** will design and build a prototype of a WEC device that can capture at least twice as much wave energy as today's technology for its material cost. "Average Climate Capture Width per Characteristic Capital Expenditure," to be referred to as the ACE metric, was selected by the **Wave Energy Prize** as a reduced-content metric that is a proxy for the levelized cost of energy (LCOE). To achieve the goal established by DOE and promote the necessary revolutionary advancements in WEC technologies, the Wave Energy Prize has established an ACE threshold value based on the current state of the art technologies.

The **Wave Energy Prize** has determined that the ACE value is 1.5 meters per million dollars (1.5m/\$1M) in typical deep water locations off the West Coast of the United States. At the final gate, testing at 1/20th scale, WECs must achieve a threshold of 3m/\$1M to be eligible to be considered for winning a monetary prize.

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### Wave Energy Prize Milestones

#### April - June 15, 2015

Online registration for the Wave Energy Prize.

#### April - July 15, 2015

Teams prepare and submit Technical Submission package for evaluation.

#### August 14, 2015

Announcement of Qualified Teams.

#### August 14 - January 29, 2016

Qualified Teams generate numerical model simulations, develop a small-scale model, conduct wave tank testing and submit results for review.

#### March 1, 2016

Finalists and Alternates announced.

#### March 1 - July 2016

Finalists and Alternates procure and construct a scaled WEC prototype for tank testing, submit build progress and test readiness reports.

#### July 1, 2016

Announcement of Finalists who will proceed to testing at the MASK basin.

#### August 1 - October 10, 2016

Test and evaluate Finalist Teams' fabricated designs at Carderock MASK basin facility.

**November 2016** Awards ceremony with announcement of winning team(s).



Wave Energy Prize finalists will have the opportunity to test their designs as the nation's most advanced wave-making facility, the Naval Surface Warfare Center's Maneuvering and Seakeeping (MASK) Basin at Carderock, Md., beginning in August 2016

U.S. entities are able to participate in the **Wave Energy Prize**. This includes U.S. persons and companies as well as foreign companies that are incorporated in and maintain a primary place of business in the United States. Full eligibility requirements for the Wave Energy Prize are set in accordance with those established by the America COMPETES Act, and are fully outlined in the Wave Energy Prize Rules document.

More information is available at www.waveenergyprize.org.