American-Made Water Prize

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U.S. DEPARTMENT OF ENERGY

PARTNERSHIP PACKAGE

JULY 2020 RELEASE

About the Waves to Water Prize

The U.S. Department of Energy (DOE) Waves to Water Prize is designed to accelerate technology innovation of wave energy powered desalination systems. It was the first prize launched as part of the Water Security Grand Challenge—a White House initiative led by DOE to advance transformational technology and innovation to meet the global need for safe, secure, and affordable water. The Prize is also part of the American-Made Challenges series designed to reassert American leadership in energy markets through innovation.

Wave powered desalination technologies hold the potential to deliver clean water to communities for disaster relief purposes, and to remote coastal communities around the world. Administered by the National Renewable Energy Laboratory (NREL) on behalf of the U.S. Department of Energy Water Power Technologies Office (WPTO), the Waves to Water Prize provides innovators a pathway from initial concept, to technical design, to prototype, and finally to field testing of systems that provide clean drinking water using only wave energy.

Over three years, the Waves to Water Prize will offer up to \$3.3 million in cash prizes over 5 stages: CONCEPT, DESIGN, ADAPT, CREATE, and DRINK. With this prize, DOE challenges innovators to develop small, modular, cost-competitive wave powered desalination systems that:

- 1. Propose novel CONCEPTs for wave powered desalination,
- 2. Develop technology integration through detailed DESIGN,
- 3. ADAPT designs to meet site-specific conditions,
- 4. CREATE successful systems through prototyping, and
- 5. Validate technologies to produce clean DRINKing water in an open water setting.

To date, a total of \$1 million in cash prizes have been distributed to winning teams who demonstrated innovative ideas and successful technical plans in the CONCEPT and DESIGN Stages. Up to \$2.3 million in cash prizes remains available to teams who win the ADAPT, CREATE, and DRINK Stages.

The final DRINK Stage closes at Waves to Water Week in April 2022 when up to seven finalists from the CREATE Stage will test their devices off Jennette's Pier in the Outer Banks of North Carolina. Waves to Water Week will be a 5-day event where finalists will deploy and test their devices in real time.

For more information on the Waves to Water Prize visit: <u>https://americanmadechallenges.org/wavestowater/</u>



ADAPT 6.8-11.30

The third ADAPT Stage opened on June 8, 2020 and will close November 30, 2020. Over 180 days, competitors will design flexible wave powered desalination systems to meet site conditions at Jennette's Pier in Nags Head, North Carolina. Designs must present a robust system demonstrating attention to sound engineering principles, while providing confidence in the contestants' ability to build their systems in the CREATE Stage; to produce a deployable unit for the DRINK Stage; and to develop a plan to participate in the DRINK Stage of the prize.

Competitors will be judged on feasibility and risk assessment perspectives to evaluate the engineering design of the proposed device and any prototyping and testing work done so far. Specifically, reviewers will evaluate the degree to which the proposed system can perform wave powered desalination, as well as survive the environmental conditions at Jennette's Pier. Details from applications will also ensure compliance with the National Environmental Policy Act (NEPA), 42 U.S.C. 4321 et seq., clearance process necessary for open water testing at Jennette's Pier in April 2022. For more information, visit the ADAPT Stage Rules: https://americanmadechallenges.org/wavestowater/Waves-to-Water_Prize_Official_Rules.pdf

Why get involved with Waves to Water?

The Waves to Water Prize is a unique opportunity to engage communities across the private and public sector. WPTO is searching for partners, as defined below, of the prize to support outreach, competitors, and prizes; and to ultimately accelerate wave energy powered technology innovation. Your involvement helps solidify the success of our Waves to Water innovators and is an opportunity to be a part of a network of technical experts, academics, industry professionals, incubators, and investment partner.

There are many ways in which partners of the Waves to Water Prize can provide support, including prize amplification and outreach, technical expertise, training, event planning, competitor mentorship, and connections to industry and stakeholders. The U.S. Department of Energy is grateful for any assistance that individuals, organizations, and institutions can provide.

Who can be a Partner?

DOE invites a diversity of organizations to support the Waves to Water Prize. In the past, supporters of DOE prizes have included non-profits, non-governmental organizations, state and federal agencies, venture capital investors, consulting firms, academic institutions, community organizations, and more. As a partner, your organization's name and logo will be displayed on our prize webpage, appear in promotional materials, and be included in a list of partners.

Partners of Waves to Water

DOE is seeking two types of partners to support the ADAPT Stage of the Waves to Water Prize:

Breaking Waves: Outreach & Engagement Partners

AMPLIFY THE PRIZE by helping DOE spread the message. Support can include blog posts, social media engagement, inclusion of the prize in newsletters, or other amplification mechanisms as identified by the partner.

Examples of prize amplification:

- Creating and disseminating communications related to the Waves to Water Prize. DOE must approve this communication in advance.
- Identification of and outreach to stakeholders interested in wave power and desalination systems.

Surging Waves: Team Support Partners

ASSIST COMPETITORS preparing for the ADAPT, CREATE, and DRINK Stage. Support may include mentorship, prototyping support, or other services and trainings that could directly benefit <u>all</u> competitors in the prize.

Examples of prize team support could include:

- Design consultation to mitigate risk and improve survivability, simplicity, or efficiency.
- Membranes or off-the-shelf components that would support competitors with building their systems.
- Trainings to understand standardization and scaling design principles.

In Recognition of ADAPT Stage Supporters

ADAPT STAGE RECOGNITION		
	BREAKING WAVES	SURGING WAVES
Social Media Posts and Promotion	~	~
American Made Challenge Website	~	~
HeroX Prize Website	~	~
WPTO Website	~	~
Water Wire Newsletter Feature		~
Featured in Press Releases		~
Specific Branding of Offerings		 ✓

Breaking Waves

- Social Media Posts and Promotion: Recognition of partnership in communication materials, including but not limited to unique social media posts and retweets of existing posts.
- Website Presence: Featured as a partner on the American-Made Challenge website, HeroX prize website and DOE Water Power Technologies Office Website.

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- Additional Features: Recognition of partnership in communication materials, including but not limited to a feature in the WPTO Water Wire newsletter and/or featured press releases.
- Specific Branding of Offerings: If applicable, in-kind support of teams may be branded with partner name or trademarks in accordance with appropriate rules and regulations.

How to get involved with Waves to Water

If your organization wishes to become a supporter (partner), please note that the U.S. Department of Energy Waves to Water Prize organizers have established the following general requirements:

- Supporters must adhere to the following requirements for all supporter-created outreach material (advertisements, news releases, handouts, etc.) and products that feature or represent the U.S. Department of Energy Waves to Water Prize:
 - o Obtain advance approval from the U.S. Department of Energy
 - o Represent the prize as the "U.S. Department of Energy Waves to Water Prize"
 - Reference partnership of the Waves to Water Prize event as follows: "Proud (supporter/partner) of the U.S. Department of Energy Waves to Water Prize"
 - Feature U.S. Department of Energy Waves to Water Prize branding on available channels as agreed upon with organizers.
- Supporters will appoint one person to serve as the official contact with event organizers and to coordinate the activities required to fulfill the agreed upon Memorandum of Understanding (MOU).

If your organization wishes to support with the U.S. Department of Energy's Waves to Water Prize, please reach out to the Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy at <u>wptoprizes@ee.doe.gov</u>.