



U.S. DEPARTMENT OF ENERGY

American-Made Solar Desalination Prize

GUIDELINES FOR CONNECTOR RECOGNITION REWARDS

1. INTRODUCTION

The Department of Energy's Solar Energy Technologies Office (SETO) is launching the American-Made Challenge: Solar Desalination Prize (Solar Desal Prize) as a \$10 million four-contest program to accelerate the commercial development of thermal desalination systems powered by low-cost solar-thermal energy. The Solar Desal Prize gives innovators a pathway from initial concept to a field-tested system that provides clean, accessible water. Each successive phase of the competition will be more challenging than the last, with larger prizes and fewer competitors advancing. Competitors will compete for \$7.5 million in cash prizes and access to up to \$2.5 million in support services.

The goals of this prize are to expand the availability of fresh water by cost-effectively treating challenging saline water using solar-thermal energy, with minimal electricity and conventional energy resources. This prize program seeks to fund innovations that address a broad range of process parameters, including throughput, scale, product-water purity, and the ability to handle feed water with high salt content of greater than 30,000 parts per million (ppm). Competitors will utilize collaborative pathways to rapidly develop ideas into operational desalination facilities in the next few years.

The program consists of a prize competition and the development of the American-Made Network. The American-Made Network consists of National Laboratories, energy incubators, and other resources across the nation to provide expertise to Solar Desalination Prize competitors. Teams can use the Network for assistance with prototyping, business plans, and connections to testing facilities and other partners.

2. CONNECTORS

Connectors are the core component of the American-Made Network and are organizations that seek to support the efforts of competitors in the Solar Prize. Connectors must be U.S.-based organizations (not individuals) that have the capacity to connect competitors to mentoring, business resources, manufacturing resources, or introduce them to possible sources of funding. Connectors that are successful in helping competitors win any of the Solar Desal Prize contests will earn Recognition Rewards. Connectors can be incubators, universities, think tanks, industry groups or any U.S.-based organization that provides support activities such as:

- Helping competitors refine their innovations, develop business plans, work with mentors, and connect them with investors and industry partners;
- Assisting competitors in the preparation of their Submission Packages to the Prize Contests;
- Raising non-federal funding to support this program and its participants;

- Providing in-kind resources, tools, and facilities to accelerate competitors’ abilities to innovate, test, and refine their solutions while reducing technology and business risks;
- Connecting competitors to regional development, prototyping, validation, testing or manufacturing tools, facilities, and expertise.

Connectors who support competitors that go on to win any of the four contest stages earn payments outlined the table below. Entities interested in participating as a Connector can visit the following site to sign up and apply: <https://americanmadechallenges.org/connect.html>.

Power Connectors are not eligible for Recognition payments.

Connector Recognition Reward Opportunities:

Reward Name	Award Amount	Total Amount Available	Details
Test Site	\$10,000	\$100,000 pool	Distributed to Connectors for recruiting new test site facilities that are not already part of the network and are capable of, and interested in, hosting a prototype solar desalination facility
Recruiting	\$5,000	\$100,000 pool	Distributed to Connectors for recruiting new competitors for the Innovation contest who have not previously applied for funding from SETO in the past three years
Team	\$5,000	\$100,000 pool	Distributed to Connectors who find team members who become part of a winning Teaming contest submission
Partner	\$25,000	\$100,000 pool	Distributed to Connectors who find a commercial partner and/or private funding that is incorporated into a winning Test contest submission

Test Site – The Test Site Recognition Rewards will be paid to the Connectors that recruit new water test site facilities that are not already part of the American-Made Network. These facilities must be both capable of and willing to host a prototype solar desalination facility. These test sites will not be compensated by NREL for their services. Compensation for use of the test site must be negotiated between the test site and the competitor. There are ten (10) Test Site Recognition Rewards available in total, and they will be awarded on a first come, first serve basis. It is possible that not all Test Site Recognition Awards will be awarded.

To qualify as a host for the American Made Challenges: Solar Desalination Prize, a site must meet all of following criteria:

- a. The site must be able to provide a source of raw water in need of desalination. If a source of raw water is not available, the site must be able to receive and store high-salinity water, as test input for desalination.
- b. The site must be able to dispose of or use the desalinated water (product water) stream.
- c. The site must be able to dispose of the concentrated brine stream (if any). In the absence of the ability to discharge very high salinity brine, the site should have the ability to fill trucks to dispose such brine.
- d. The site must provide reasonable access to the site facilities and services for competitors in order to support the construction, commissioning, and testing of the innovation. This includes such services as equipment receipt and storage, security, warehousing, cooperation with site personnel, demolition, trailers as required etc. Access must also be given to third party support services, such as for waste water disposal by truck.
- e. The site must have procedures in place for safety, including handling of chemicals, construction activities, safety training (as necessary), lock-out-tag-out, etc as necessary to support the Competitors.
- f. The site must be able to provide the needed utilities of the innovation (e.g. power, compressed air, emergency power, fuel/gas supply, lighting, etc). Details should be discussed with each team. In the event high voltage becomes necessary, the site should be adjacent to transformers, as needed.
- g. The site must already have all required permits for all of the proposed activities or be able to show a clear path to getting a permit for all required activities. Activities include the construction, commissioning, testing, and operation of the innovation. This might include, for example, water discharge permits, construction permits, natural gas combustion (temporary heaters), thermal discharge of waste streams, concentrated impurities in wastewater, etc.
- h. Since solar thermal desalination is the focus topic, the site should have sufficient area to install solar collectors and a thermal storage system; however, if competitors plan to use alternate source of heating such as natural gas, the site should have access to natural gas, propane or fuel oil; and permits to make use of such fuels at the facility.

There are no limits on the quantity of water, salinity, and levels of impurities in the water available at the test site.

The Competitors will evaluate the suitability of the host site based on the details of their innovations.

- Connectors that recruit Test Sites must be an approved and active Connector in the American-Made Network at the time of recruitment
- The Test Site must not be a current Connector or have a Connector application pending.
- The recruited Test Site must apply to be a Connector in the American-Made Network through the following link: <https://americanmadechallenges.org/connect.html> and be approved by the Prize Administrator. During the vetting process, Test Sites will be required to fill out an additional questionnaire about their facilities and testing capabilities for a solar desalination system. Referring Connectors receive the Recognition Award only if the Test Site is fully approved.
- The Connector that recruits a Test Site must e-mail solardesalprize@nrel.gov with the subject line “Test Site Referral” and reference the recruited Test Site. This e-mail must be received no more than 7 calendar days prior to the Test Site applying to be a Connector or within 48 hours of the Test Site applying to be a Connector.
 - Retroactive referrals outside the 48-hour period will not be accepted.
 - If a Test Site does not fill out the Connector Application Form within 7 days of the e-mail notification of referral by a Connector, the referral will expire and the Connector will need to re-notify the Prize Administrator of the referral.
- Connectors are limited to 1 Test Site Recognition Reward, regardless of how many test sites they recruit.
- Only one Connector can receive recognition for each Test Site. In the case that two Connectors claim they referred the same Test Site, the Connector who notifies the Prize Administrator via the solardesalprize@nrel.gov e-mail address first will receive the Recognition Reward.
- A Test Site must be identified by a team in their Teaming submission in order for a Connector to earn the Recognition Award. The Test Site must be listed as a part of a team in a Teaming submission or must have written a letter of support included in a Teaming submission. Test Sites that are recruited, but not identified in a submission will not result in a Recognition Reward payment.
- The Recognition Rewards will be awarded after the Teaming Contest submission deadline.

Recruiting – The Recruiting Recognition Rewards will be paid to Connectors who recruit new competitors for the Solar Desal Prize through targeted outreach and events leading up to the Innovation Contest. Connectors may begin engaging with the community via local events, meet-ups, or other public events that are geared toward inspiring the public and generating ideas, or

through the mobilization of relevant talents and resources in their network. A Connector will only receive a \$5,000 payment for successfully recruiting a new competitor who completes a Submission Package in accordance with the guidelines described in the Innovation section of the Official Prize Rules. The following terms also apply:

- The recruited competitor must not have applied for funding from SETO within the past three years.
- The Connector must be an approved and active Connector in the American-Made Network. To be a Connector, fill out the application form at <https://americanmadechallenges.org/connect.html> by clicking on the “I am ready to connect” button. The application form must be submitted by the Innovation Contest deadline.
- The Competitor must list the Connector in the submission form in response to the question “How did you learn about the prize?” Only one Connector can be credited for each competitor.
- A single Connector can be listed on multiple submissions, but can only receive a maximum of 2 Recruiting Recognition Rewards (total of \$10,000).
- In the event that more than 20 Recruiting Recognition Rewards are identified, the Prize Administrator reserves the right to limit a single Connector to 1 Recruiting Recognition Reward (instead of 2) or divide the total Recruiting Recognition Reward pool evenly among eligible Connectors so that each payment is less than \$5,000.

Team – The Team Recognition Rewards will be paid to Connectors who find and connect team members which become part of a winning Teaming contest submission. A Connector will only receive a \$5,000 payment for successfully connecting competitors who form a team and completes a Submission Package in accordance with the guidelines described in the Teaming section of the Official Prize Rules. The following terms also apply:

- The Connector must be an approved and active Connector in the American-Made Network. To be a Connector, fill out the application form at <https://americanmadechallenges.org/connect.html> by clicking on the “I am ready to connect” button. The application form must be submitted by the Teaming Contest deadline.
- The Competitor must list the Connector in the submission form under the question “did any Connectors help you form your team?”
- A Competitor may list up to 2 Connectors that introduced new team members.

- A Connector may be listed on multiple submissions. There is no limit to the number of Teaming Recognition Rewards that a Connector can earn.
- The Connector will only receive a Recognition Reward if the competitor wins the Teaming Contest.

Partner – The Partner Recognition Rewards will be paid to Connectors who find a commercial partner and/or private funding that is incorporated into a winning Test contest Submission Package. The following terms also apply:

- The Connector must be an approved and active Connector in the American-Made Network. To be a Connector, fill out the application form at <https://americanmadechallenges.org/connect.html> by clicking on the “I am ready to connect” button. The application form must be submitted by the Test Contest deadline.
- The Competitor must list the Connector in the submission form in the Partners, Affiliates, and Connectors section.
- The Competitor must provide the Prize Administrator details on the size and scope of partnership or funding commitment and how it made a significant contribution to their work.
- There are four (4) Partner Recognition Rewards available in total, and they will be awarded on a first come, first served basis. The Prize Administrator reserves the right to add funding to the Partner Recognition Rewards, but is not required to.