



U.S. DEPARTMENT OF ENERGY

# **American-Made Solar Desalination**

## **VOUCHER GUIDELINES**

# Contents

VOUCHER GUIDELINES.....	1
1. INTRODUCTION.....	3
2. VOUCHER OVERVIEW.....	3
3. VOUCHER SERVICE PROVIDERS.....	4
4. VOUCHER PROCESS.....	4
5. VOUCHER USE POLICIES.....	6
6. VOUCHER AMOUNTS.....	8
7. VOUCHER AGREEMENTS AND PAYMENTS.....	8
APPENDIX A – VOUCHER PRIZE PLAN SUBMISSION FORM.....	9
APPENDIX B – VOUCHER WORK COMPLETION TEMPLATE .....	10

# 1. INTRODUCTION

The DOE'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 goal of this prize is to expand the availability of fresh water by cost-effectively treating challenging saline water using solar-thermal energy, while using 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.

# 2. VOUCHER OVERVIEW

The winners of the Teaming and Design Contests will be eligible for a Voucher Prize of up to \$100,000 and may apply to redeem the Voucher Prize any time after winning the respective contest. The vouchers will support competitors to work with approved organizations in the American-Made Network to advance their prototype in a significant way.

Winners may have the opportunity to utilize vouchers at DOE's 17 national laboratories or at an approved organization in the American-Made Network. Any interested organization can apply to be added to the list of approved organizations at <https://americanmadechallenges.org/connect.html>. Details on redeeming the Voucher Prize are below.

The DOE national labs, together with the approved organizations and facilities, are referred to as Voucher Service Providers (VSPs).

VSPs may provide competitors with:

- Access to hardware and development tools
- Access to national laboratories, universities, and private laboratories
- Specialized facilities with additive, reductive, and digital manufacturing support
- Testing and validation capabilities
- Other expert services that may be negotiated between the winners and the lab, organization, or facility.

Vouchers may not be redeemed with the test/host site identified by the competitor in their Teaming submission.

### 3. VOUCHER SERVICE PROVIDERS

VSPs are any of DOE's 17 national laboratories, as well as approved private organizations and facilities included in the American Made Network.

Private organizations and facilities that would like to provide services to winners of the Teaming! And Design! competitions can apply to be a VSP on the website (<https://americanmadechallenges.org/connect.html>). The following must be described:

- Description of services offered
- Website
- Location of business
- History of business
- Examples of success with previous customers in the area of services that the organization is offering here.

The Prize Administrator, at its sole discretion, determines whether non-national lab organizations may become an approved VSP. The Prize Administrator will review applications to become an approved VSP, which must establish, at a minimum, that:

- The entity is an incorporated U.S. business that has been in existence for at least 12 months at the time the application is submitted
- The entity has an active website that describes the organization's capabilities
- The entity offers capabilities, facilities, and services that are broadly available to interested parties and the general public
- The business entity has a history of success in producing, developing, testing, validating, prototyping, and manufacturing products and solutions.

### 4. VOUCHER PROCESS

The process for vouchers issued under the Teaming and Design Contests consists of the following steps designed to pair competitors with the VSPs that are capable of providing valuable assistance for their specific projects.

1. **Identify Partners** - Competitors research and find their preferred VSPs. They can use any partners in the [American-Made Network](#). If a competitor wants to use an entity outside of the network, they can recruit those entities to join the Network. Partners must be included in the American-Made Network in order to be considered a viable partner for the Voucher Prize. All Department of Energy national labs are included in the Network and can be a voucher partner. Partners and VSPs must be independent from the team using their services, VSPs must not be a team member, or entity connected with the team, competing in the prize.
2. **Develop Idea** – Competitors work directly with the VSP to discuss the statement of work and a quote for the cost of the work. If a competitor chooses to work with multiple VSPs, a statement of work and quote must be included for each VSP.

3. **Submit Voucher Prize Plan** – Competitors submit their Voucher Prize Plan to the Prize Administrator by e-mailing the [Solar Desal Prize Inbox](#). The Voucher Prize Plan must demonstrate how working with the selected VSP(s) will significantly advance the Team's prototype. The Voucher Prize Plan Submission Template can be found in Appendix A. A competitor may only submit one Voucher Prize Plan. If a competitor chooses to split the voucher between multiple VSPs, all of these must be included in the Voucher Prize Plan. Vouchers may be split among a maximum of 4 VSPs.
4. **Plan Confirmation** – The Prize Administrator and DOE will review the plan to ensure the work significantly improves the prototype or advances the technology in question. If the plan seems to be in alignment with the goals of significantly advancing the prototype, the Prize Administrator will confirm that work can commence. If the plan does not meet the voucher requirements, the Prize Administrator will inform the team, and the team may choose to renegotiate the work and resubmit a new Voucher Prize Plan.
5. **Commence Work** – Competitors contract with the VSP and sign any necessary paperwork (i.e. NDAs, contracts, partnership agreements, etc.). The competitor and VSP complete the work. For work at DOE national labs, the Prize Administrator will directly transfer funds to appropriate laboratories to initiate work. For work done outside the national labs, but with a VSP in the Network, the competitor pays the VSP directly for the work.
6. **Voucher Pre-Payment** – If more than 50% of the voucher (\$50,000) is being redeemed with a VSP in the Network (not a national lab), the Prize Administrator will award the competitor half of the amount being redeemed with the VSP in the Network upon acceptance of the plan confirmation by the Prize Administrator. The competitor is required to pay the VSP in the Network directly for all voucher work. This pre-payment helps the competitor to cover those upfront costs.
7. **Submit Milestones and Achievements** – Once all the work proposed in the Voucher Plan is completed, the competitor submits evidence that the key milestones or technical achievement has been accomplished by e-mailing the Voucher Prize Work Completion form to the [Solar Desal Prize Inbox](#). A template for the Voucher Prize Work Completion submission can be found in Appendix B. The Prize Administrator reserves the right to deny final payment to the team if the work was not completed, proper documentation was not submitted to validate work done, or if the actual work done did not meet the original intent of the Voucher Plan.
8. **Milestone Review** – The Prize Administrator and DOE will review the submission to ensure it meets the goals of the previously submitted Voucher Prize Plan.
9. **Prize Payment** – The Prize Administrator will award the team with the remaining half of the Voucher Prize, if applicable based on the accomplishments achieved and advancements made to the prototype.

The teams are fully responsible for finding VSPs, negotiating the work agreements, contracts, and CRADAs, and will be the technical monitor to ensure that work is accomplished according to the approved Voucher Plans. If the Prize Administrator does not receive complete information that proves that work was done in compliance with the approved Voucher Plan, the final payment may not be provided.

To the fullest extent permissible under applicable law, DOE and NREL disclaim all warranties, express or implied, including but not limited to, warranties of performance, merchantability, fitness for a particular purpose, accuracy, omissions, completeness, currentness and delays, DOE and NREL

disclaim all responsibility for any loss, injury, claim, liability, or damage of any kind resulting from, arising out of, or in any way related to voucher work.

User agrees to defend, indemnify, and hold DOE, NREL, their affiliates, contractors, suppliers, directors, employees, and agents harmless from any and all claims, costs, damages, judgments, and liabilities (including but not limited to reasonable attorney's fees) made by any party and arising from any use of the Content.

## 5. VOUCHER USE POLICIES

The following terms specify the voucher use policy for the Teaming! And Design! Contests:

- **Voucher Recipients**—Only Teaming! and Design! Contests winners will receive vouchers.
- **Voucher Amount**- The competitor may only submit one Voucher Prize per contest. If the quote in the Voucher Prize is less than the total Voucher Prize amount (\$100,000), the competitor will only be awarded what is quoted in the Voucher Prize Plan submission.
- **Splitting a Voucher** – A competitor can select to work with up to four VSPs. In the Voucher Prize Plan, a statement of work and quote must be included for each VSP.
- **Approved VSP**—Competitors may use a voucher only at a DOE national lab or a VSP that is approved by the Prize Administrator and listed on the American-Made Challenge website.
- **Allowable work**—All work conducted by the VSPs, and funded through vouchers, must be exclusively dedicated to advancing the competitor's innovation selected in the Teaming! or Design! Contest. Additionally, funds must be used for prototyping, developing, testing, or validating the innovation. When considering whether work will advance a particular innovation, the Prize Administrator will look to tangible and measurable outcomes related to advancing the innovation. Costs of the work must be reasonable. No alcohol, food, travel, or other personal expenses will be allowed.
- **Best Value Due Diligence**—Competitors are solely responsible for engaging national labs and other approved VSPs and establishing scopes of work under the voucher system. Competitors must determine which VSPs they will work with and conduct their own due diligence to determine the best value of the technical assistance covered by the voucher. Competitors may also seek assistance from Connectors in the American Made Network<sup>1</sup> to help facilitate relationships and agreements. The Prize Administrator staff will not intervene, mediate, or negotiate on behalf of competitors for the use of vouchers at any point in this program.
- **Responsibility**—It's the competitor's sole responsibility to ensure that a facility selected is on the approved facility list on <https://americanmadechallenges.org> and that the Voucher Prize Plan is in accordance with the guidelines herein. The competitor shall pay any upfront costs required by the non-lab VSPs at its own risk. Remember, if your Voucher Prize Plan is approved, you will receive half of the amount quoted as an upfront prize payment. The

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<sup>1</sup> As part of the overall American Made Challenges: Solar Prize, Solar Energy Technologies Office in conjunction with NREL is bringing parties interested in supporting competitors in this competition together under the American Made Network. Included in the Network are entities that want to connect competitors to the support they need to succeed. To learn more about the American Made Network and Connector Organizations please visit <https://americanmadechallenges.org/connect.html>.

competitor is also solely responsible for managing the process and the work products including any changes, delays, risks, conflicts, or disputes. The Prize Administrator will not be part of the contract or agreement between the competitor and a non-national lab VSP nor will it be a guarantor of the technical outcomes, work products, or quality of the services offered by a non-national lab VSP. If, for whatever reason, the work is not completed, or a dispute arises between the competitor and a VSP, resolution is entirely the responsibility of the competitor. The Prize Administrator will not intervene or mediate in such cases and will not bear any costs for dispute resolution among the parties.

- **Protecting Innovation Intellectual Property (IP)**—When a competitor is working with a national laboratory and/or a non-national lab VSP, they are solely responsible for ensuring the protection of IP. When working with a national lab, the competitor may be required to sign a Cooperative Research and Development Agreement (CRADA) or other agreements in order to protect IP and work with these entities. Competitors should read the terms and conditions carefully and seek legal advice if needed. The competitor is also responsible for the payment associated with protecting IP, including any relevant legal services or patents.
- **IP-Related Restrictions**—There are some IP restrictions and controls if the voucher payments are processed through a CRADA or Memorandum Purchase Order (MPO) options. This is only the case when a competitor is working with a national laboratory. Review the full details in Section 7.
- **Arms-Length Transactions**—The relationship between a competitor and a VSP should avoid conflicts of interest or the appearance of conflicts of interest. A competitor and a VSP should act independently and should not have any relationship to each other beyond providing services. All parties must be acting in their own self-interest and not be subject to any pressure or duress from the other party. The Prize Administrator may deem a VSP not eligible as an approved voucher service provider if there is a perceived conflict of interest between the VSP and the competitor. The VSP may not be officially part of the team, or affiliated with the team, requesting services.
- **Process Compliance**—All competitors agree to adhere to the requirements contained in this document. Failure to follow these requirements may limit competitors' ability to acquire voucher funds.
- **Use or Lose**—Competitors must apply for and use the Voucher Prize during the respective prize phase. Vouchers awarded for winning the Teaming! Contest must be used during the Design! Contest. Vouchers awarded for winning the Design! Contest must be used during the Test! Contest. The Voucher Prize Work Completion form must be submitted prior to a team's application to the next phase (i.e. the Voucher Prize Work Completion form for a voucher used during the Design phase must be submitted prior to the team submitting their Design phase submission). Vouchers expire the day the team submits their next Contest submission, or 3 years after the voucher is won, whichever is shorter. Vouchers cannot be redeemed as cash payments prior to work being done, may not be transferred to other parties, and will only be paid to the competitor once substantial improvements have been made to prototypes. Extensive proof of prototype improvements must be submitted in accordance with the guidelines of this document.

## 6. VOUCHER AMOUNTS

Vouchers can be redeemed up to the \$100,000 Voucher Prize award amount.

The competitor must submit a quote for all voucher work as a part of the Voucher Prize Plan submission. If the total quote for work done by the VSPs is less than the \$100,000 Voucher Prize amount, a competitor will receive the total amount quoted in their submission. If the quote for work by VSPs is greater than \$100,000, competitors will be responsible for paying the difference between the total quote and the \$100,000 to the VSPs.

## 7. VOUCHER AGREEMENTS AND PAYMENTS

For all Voucher Prize work, teams are responsible for negotiating agreements with the VSP.

Any vouchers being redeemed at a national lab will be paid directly from the Prize Administrator to that lab. The competitor is responsible for paying any VSP in the Network.

If more than 50% of the voucher (\$50,000) is being redeemed with a VSP in the Network (not a national lab), the Prize Administrator will award the competitor half of the amount being redeemed with the VSP in the Network upon acceptance of the plan confirmation by the Prize Administrator. The competitor is required to pay the VSP in the Network directly for all voucher work. The remaining half will be awarded when the Voucher Prize Completion form is submitted and approved.

### **Work with NREL**

If a team selects to work with NREL as the VSP, they may be required to enter into a Cooperative Research & Development Agreement (CRADA). A signed CRADA gives a competitor maximum collaborative flexibility with a national lab and allows additional private funds to be used to expand the SOW. It also defines ownership of any intellectual property developed during voucher-funded work as well as other specifics of the collaboration. Teams will be required to fund invoices from NREL to complete the work. The Prize Administration team can make connections for teams with NREL researchers and the NREL Technology Transfer Office, who will ultimately be responsible for executing the CRADA.

### **Work with Other National Labs**

Each national lab has its own agreement requirements for working with external entities. Teams are encouraged to work directly with the select lab on any agreements that must be in place for work to commence.

### **Work with a Non-National Laboratory VSP**

If a competitor submits a Voucher Prize Plan with a non-national laboratory VSP, the competitor shall follow the steps defined in the Voucher Process (section 3) of this document. This includes ensuring that the VSP is an approved provider on the American-Made Challenges website, defining a SOW, ensuring that the SOW is reviewed by the Prize Administrator prior to beginning work, signing all relevant documents to commence work, paying for the work, and providing adequate details about the work performed in order to be rewarded through a Voucher Prize.



## APPENDIX A – VOUCHER PRIZE PLAN SUBMISSION FORM

Team Name:

Team Captain:

Email Contact:

Phone Contact:

Total Cost of Voucher Work:

For Each Voucher Service Provider:

Voucher Service Provider Name:

Voucher Service Provider Contact Information (name, e-mail, phone number):

Provide a description of the work to be done with the Voucher Service Provider (include an overall description of the objectives, specific deliverables, and approximate timeline). Describe the types of details you will provide the prize administrator once the work is complete. Examples include photos, videos, testing results, validation results, invoices proving that work was completed, documentation from the VSP describing the work completed, etc. This could be similar to a statement of work. *2 pages maximum.*

Why did you select this VSP? And what expertise do they have specifically to help you advance your prototype? *1 page maximum.*

What is the quoted cost for this work?

## APPENDIX B – VOUCHER WORK COMPLETION TEMPLATE

Team Name:

Team Captain:

Email Contact:

Phone Contact:

For Each Voucher Service Provider:

Voucher Service Provider Name:

Voucher Service Provider Contact Information (name, e-mail, phone number):

Describe the work completed by the VSP and provide proof of completion (picture, video link, link to a report, etc.) *2 page maximum.*

How did this work significantly improve your prototype or technology?

Is there something that you wanted to accomplish with this work that you were unable to? Please describe.

Based on this work and partnership, how satisfied are you with the work completed (Scale 1-10)?

Please provide any additional details that will help DOE and the Prize Administrator better understand the work effort and accomplishments. Examples include photos, videos, testing results, validation results, invoices proving that work was completed, documentation from the VSP describing the work completed, etc.