

ABOUT TEAMER

The energy stored in the motion of waves and currents has the potential to provide a carbon-free, renewable source of energy to meet a significant portion of society's needs. To reach this potential and move marine energy technologies closer to market, researchers and developers must first refine the most promising technologies and advance their progression toward achieving commercial viability, all while navigating development and testing barriers along the way.

The Testing Expertise and Access for Marine Energy Research (TEAMER) program, sponsored by the U.S. Department of Energy (DOE) and directed by the Pacific Ocean Energy Trust (POET), will accelerate that process through 2-3 annual open funding calls over each of the next three years to support developers seeking access to the nation's best facilities and expertise. Over this time, TEAMER plans to distribute approximately \$9 million through the periodic competitive opportunities (known as Requests for Technical Support, RFTSs) to support marine renewable energy (MRE) testing and development projects.

This document is meant to provide general TEAMER program details. However, because many of the details of the program are still in active development, many of these details are subject to updates and changes. Visit <https://teamer-us.org> for the most up-to-date TEAMER information.

FAQs

What are the goals of TEAMER?

The TEAMER program has three overarching goals:

1. **Access to testing infrastructure:** provide device developers with access to a wide range of pre-certified facilities at minimal cost and allow for a much faster and more streamlined integration of physical testing and validation into the design process.
2. **Access to world-class expertise:** pair technology developers with the nation's leading marine energy experts, providing desktop assistance and access to modeling tools and support.
3. **Consistent testing protocols:** implement consistent testing protocols for use in the facility network and create a repository of marine energy performance data that will serve the industry as a whole.

How will TEAMER work?

TEAMER will offer a series of open Requests for Technical Support (RFTS's) starting in mid2020. In order to better align with the timeframes needed by various stakeholders, the RFTS calls are currently planned to occur 2-3 times per year (roughly every 4-6 months) with an emphasis on rapid implementation and shared results.

Prior to submitting an RFTS application, applicants, who may include device developers and researchers, are required to discuss their proposed projects with the facilities to which they plan

to request access. This is to ensure the proposed scope and schedule are realistic within the facility's resources and increase the likelihood of the applicant achieving the desired results and findings. All applications will be independently reviewed to assess feasibility and impact. Applicants will be notified if their request has or has not been approved. Applicants will have the option to request access to up to two facilities per RFTS application in order of preference.

Following RFTS evaluation and approval, selected applicants and facilities will create a detailed test plan. Funding will be distributed to the testing or expertise facility to undertake the work, following shared acceptance of the detailed test plan by the applicant, facility and TEAMER program, as well as acceptance of terms between the facility and applicant (may include intellectual property, non-disclosure, insurance liability, etc.).

More details of the program, including a schedule, application procedure and participant requirements are in development and will be shared in the coming weeks.

What facilities will be included in the TEAMER network?

TEAMER is envisioned to include a wide array of U.S. marine energy and marine energy relevant testing facilities including lab and bench-scale facilities; wave tanks, basins, and flumes; and open ocean/field-based testing sites. TEAMER will also support requests for technical expertise to assist with numerical modeling, data collection, and analysis.

The program is currently in the process of qualifying potential test facilities for inclusion in the TEAMER network. The initial set of facilities available during RFTS 1 includes entities that have an existing track record with the DOE, either as National Labs or National Marine Renewable Energy Centers (NMRECs), or as facilities involved in two recent testing and characterization initiatives, the Wave Energy Prize and Reference Model Project.

To allow the additional time needed for planning, permitting and location identification, open water/field testing will be offered in subsequent RFTS rounds.

It is anticipated that the TEAMER facility network will expand over time. The TEAMER Network Director, POET, will be continuously reviewing and qualifying new facilities based on clearly defined facility network criteria, as well as routinely evaluating existing facilities for compliance with the TEAMER criteria.

Facilities interested in becoming a part of the TEAMER network are encouraged to visit the TEAMER website (<https://teamer-us.org>) to subscribe to the mailing list and keep an eye out for updates in the coming months. We plan to announce the initial network of facilities available in RFTS 1 as soon as possible and then begin expanding the network later this year.

What can TEAMER funding be used for?

TEAMER funding will support a diverse set of research and development goals. Outcomes may be related to grid-focused technology, [Powering the Blue Economy](#) markets or applications, or a cross-cutting topic.

It is critical to understand that TEAMER funding will be distributed directly to the TEAMER network facilities to provide the requested support, not to the applicant requesting support. RFTS applicants and facility managers must work closely prior to a TEAMER RFTS submission and fully agree that the final test plan is achievable within schedule and budget, and likely to produce the desired result. In certain cases, TEAMER may provide a stipend to cover travel and other logistical expenses on behalf of the applicant.

Who can apply?

TEAMER will be open to a wide array of applicants engaged in MRE research and development, and the program aims to support a diverse set of awards. Potential applicants may be part of industry (both large and small companies), academia, not-for-profit organizations, government or other types of organizations, both domestic and international. Employees of the U.S. Department of Energy and DOE National Labs are prohibited from applying to RFTS calls, but may be included in awards as network facilities. Research groups are also prohibited from applying for support at a facility within their own institution.

All TEAMER participants will be subject to a set of rules and regulations that are still under development but will be available on the website when complete.

What are the schedule and budget requirements for a TEAMER project?

TEAMER is currently a three-year, \$16 million program that has the goal of providing over 100 marine energy technology development projects with access to testing facilities and technical expertise.

To achieve this goal, during each round of the TEAMER program we anticipate providing over \$1 million in support to competitively selected applicants. In general, we expect that the majority of TEAMER awards will fall in the range of \$25,000-\$250,000 with durations lasting between 2 weeks to 6 months, depending on the type of assistance.

While these cost and time projections are intended to guide application planning, they do not represent formal constraints and individual projects will vary based on the facility rates and type of project. As examples, a typical TEAMER-supported wave tank test might involve a few weeks of intensive facility use at a relatively high daily rate, while a numerical simulation support award might take several months to complete at a relatively lower daily rate.

The most critical consideration is that applicants and facilities work together prior to applicants submitting their RFTS application to ensure the scope is realistic and likely to be successful within the available resources. TEAMER plans to offer RFTS opportunities every 4-6 months and applicants will not be eligible to re-apply until previous work has concluded and their final report has been submitted. If you're unsure whether your project fits within the range of a TEAMER activity, please ask relevant facility managers or [contact us](#) for feedback.

What rules apply to intellectual property gained as a result of TEAMER?

TEAMER is establishing an intellectual property plan to ensure that data derived from these publicly funded R&D projects properly balance the need to protect intellectual property against the need to advance the MRE sector at large. The intellectual property plan is still under development, so stay tuned and visit the website for updates regarding this topic.

How can I apply?

The TEAMER RFTS application will be submitted through a web-based system currently under development. The TEAMER website (<https://teamer-us.org>) will also describe the application and testing process in greater detail. Keep an eye out in the coming months as we make progress toward RFTS 1.

How will applications be evaluated?

Applications will be screened by the TEAMER Network Director and relevant facilities managers to ensure completeness and validity. Compliant RFTS applications will be independently reviewed by experts to assess feasibility and impact.

What requirements will be attached to a funding award?

Each TEAMER award is a relationship between three parties: the applicant, the facility, and the TEAMER Network Director (POET). Applicants to TEAMER will need to agree to follow all rules outlined by the program and any requirements from their requested facility. An initial list of rules and requirements is in development, but among them will be the requirements to (1) complete a detailed test plan prior to the start of the assistance activity, and (2) publish a postassistance report with details of the project's results within a short timeframe following the conclusion of the test period. Failing to submit a post-assistance report following tests will impact the eligibility of an applicant to apply for follow-on funding.

While the specific terms may vary project-to-project, data derived from TEAMER-sponsored projects must be made publicly available. For projects to have the most impact, applicants and facilities need to share data in a timely and useful manner that benefits the U.S. MRE sector most broadly.

What rules are there regarding the purchase of supplies and equipment?

Definitions:

Equipment: Individual items with a purchase price > \$5000 or an assembly of individual items with an aggregate purchase price > \$5000 that is formally designated as a single piece of equipment. Normally, equipment will have a useful life longer than 1 year. These items are capitalized and depreciated accordingly under Generally Accepted Accounting Principles (GAAP).*

Supplies: Individual items with a purchase price < \$5000. Normally, supplies will have a useful life less than 1 year.

*unless the organizational threshold for equipment capitalization is < \$5000

Question: Is there a maximum allowable supplies cost that can be included in a TEAMER project budget?

Answer: No, but the cost of required supplies should be justified and proportionate to the scope of the TEAMER activity.

Question: Can a facility build a test article for an applicant so long as the cost to do so is < \$5000?

Answer: No.

Question: What about items that cost < \$5000, but have a useful life longer than a year?

Answer: Such items are considered supplies. This might include fixturing components that are used in a specific project, but are suitable for re-use in future projects, as well as computing hardware.

Question: The equipment capitalization threshold for my organization is < \$5000. Would purchases of items over this threshold, but < \$5000, be considered equipment for TEAMER purposes?

Answer: Yes (and see answer to next question).

Question: Can facilities purchase equipment?

Answer: No.

Question: Can facilities fabricate equipment?

Answer: No.

Question: What does it mean to fabricate equipment?

Answer: This is a formal organizational process in which, once a piece of equipment is assembled from its constituent parts, it is treated as a depreciable asset. Financial rules related to equipment then apply to the constituent costs (e.g., associated direct costs for the assembly are not subject to indirect cost).

Who is in charge of TEAMER?

The Pacific Ocean Energy Trust (POET) [was selected](#) by a competitive process to be the TEAMER Network Director.

TEAMER is a collaborative effort between the DOE's Water Power Technologies Office (WPTO), POET, the National Renewable Energy Laboratory (NREL), Pacific Northwest National Laboratory (PNNL), Sandia National Laboratories (Sandia), and the National Marine Renewable Energy Centers (SNMREC, P MEC, and HINMREC). Members of these organizations make up the TEAMER Management Team and Technical Board, tasked with providing the Network Director technical input and approval for activities within TEAMER.

How will TEAMER avoid potential conflicts-of-interest?

The marine renewables sector is relatively small. As such, there are overlapping skills at some institutions where world class testing and support facilities exist in conjunction with independent R&D practitioners advancing marine energy sciences. As a result, there is an obvious need to address potential conflicts of interest between TEAMER applicants, TEAMER network facilities and other program stakeholders. Protections will be put in place to avoid conflicts of interest, both real and perceived, between stakeholders involved in various capacities in the TEAMER program.

TEAMER strives to be transparent and fair, and the Management Team is open to feedback as the program develops. Please contact us if you have questions or concerns.

How can I follow TEAMER as the program develops?

In the coming months TEAMER will be building out a website located at <https://teamer-us.org> and sending updates via an associated mailing list and social media accounts. Please subscribe, follow and spread the word to interested colleagues to do the same.

Where can I go with more questions?

Questions about TEAMER can be directed to the TEAMER Network Director at teamer@pacificoceanenergytrust.org.

Glossary of terms

TEAMER program: The full set of TEAMER activities, particularly used in reference to the administrative layers.

Request for Technical Support (RFTS): The official name of an application to TEAMER.

TEAMER applicant: Any entity that submits an RFTS. These can be developers or researchers from industry or academia.

TEAMER facility: Any entity that is qualified and eligible to provide technical support for an awarded RFTS. "Facilities" include centers of expertise who might support an applicant with numerical modeling, physical testing, or other types of expert assistance. Every RFTS *must* identify 1-2 qualified facilities.

TEAMER facility network, or TEAMER network for short: The full set of facilities that have been qualified to be part of TEAMER.

TEAMER Network Director: POET, responsible for managing the award funding and (per FOA): 1) Establishing and maintaining TEAMER facility network, 2) Developing and coordinating the TEAMER technical process, 3) General program management and scheduling, 4) Communications and outreach.