TEAMER
Testing & Expertise for Marine Energy

2025 TEAMER Experimental Facility Summit:

Lab/Bench, Tank/Tunnel/Flume/Basin, Open Water

July 8-9, 2025
University of Michigan – Ann Arbor, MI

Day 1 Agenda

08:00-09:00 - Breakfast

09:00-10:00- Introductions, expectations of the meeting

10:00-10:30 – Break

10:30-11:00 - TEAMER Overview

11:00-12:00 - TEAMER Testing Development Pathways

12:00-13:00 – Lunch

13:00-15:30- Small Group Discussion-Instrumentation

15:30-17:00/17:30-Facility Tour

Day 2 Agenda

08:00-08:30 - Breakfast

08:30-10:00 - NEPA Process (Cam Fisher-Environmental Science Associates)

10:00-10:30 – Break

10:30-11:00 - Partnerships between Facilities

11:00-12:00 - Marketing/Promoting Your Facility

12:00-13:00 – Lunch

13:00-15:45 - Small Group Discussion -Testing Experiences and Best Practices

15:45-16:45 - Publication and Travel Support

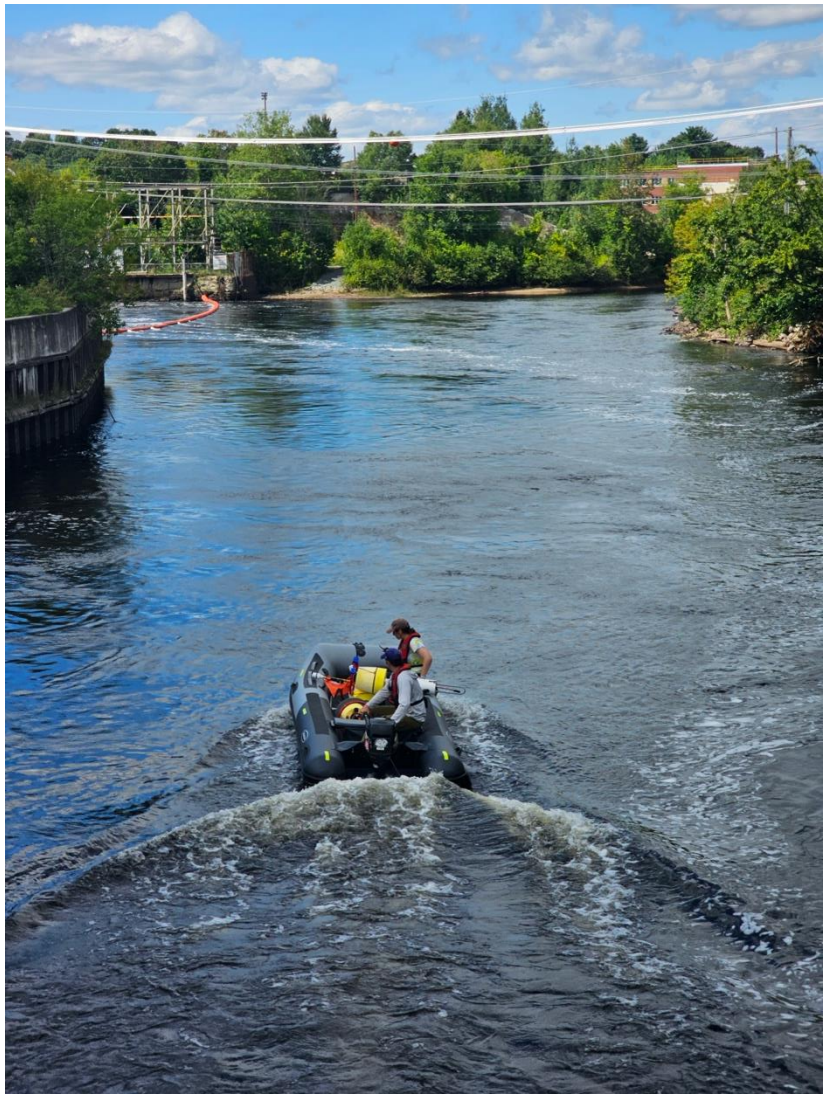
16:45-17:30 - Closing Remark

Intros – 9:00-10:00

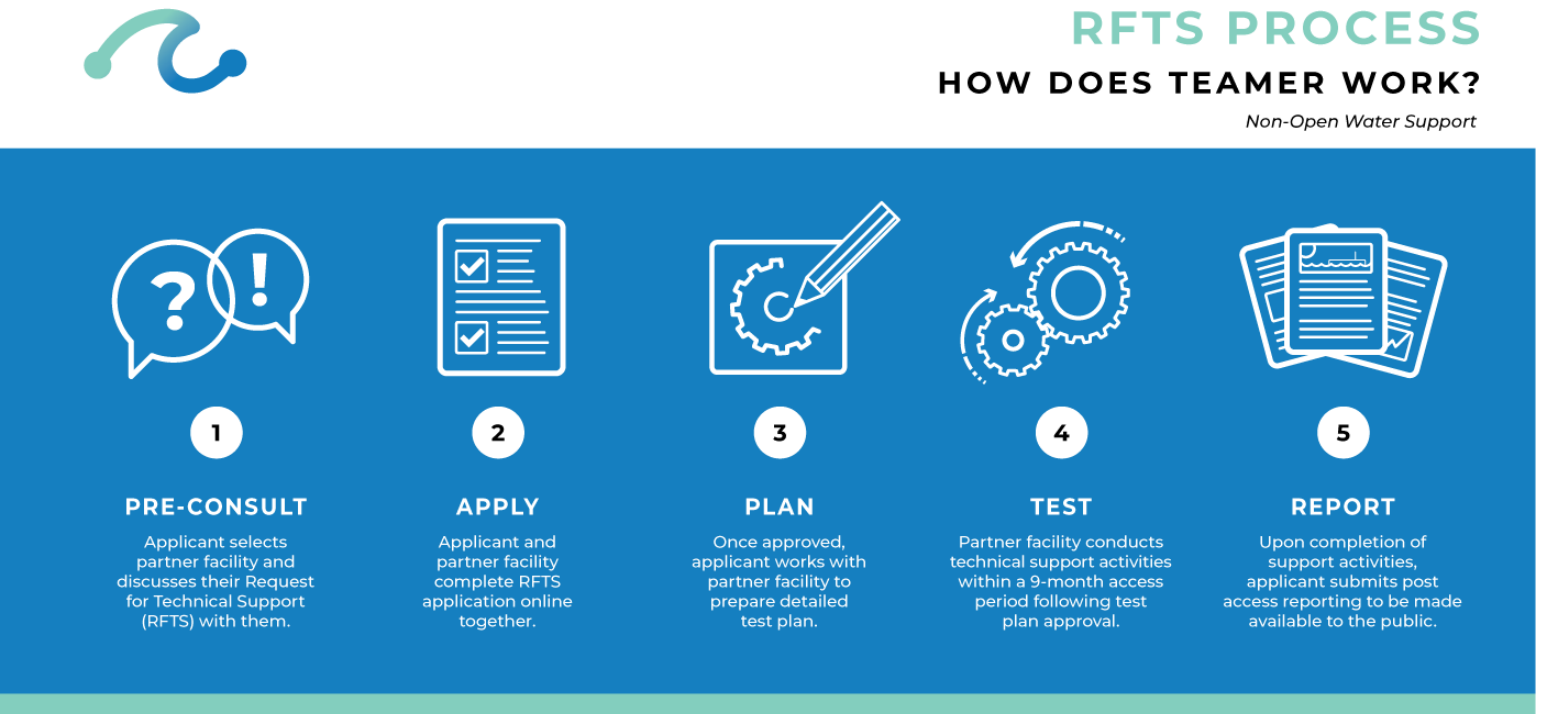
Break – 10:00-10:30

Overview - 10:30-11:00

- RFTS Process
- TEAMER RFTS Projects to Date
- Facility Network
- Overview by Year/ comparison by RFTS
- Commercialization Category
- Budgets changes
- Conference & Publication
- TEAMER Site Visits
- Website
- Engagement and Outreach
- Webinars and Workshops
- Dissemination
- Processes and Update



RFTS Process



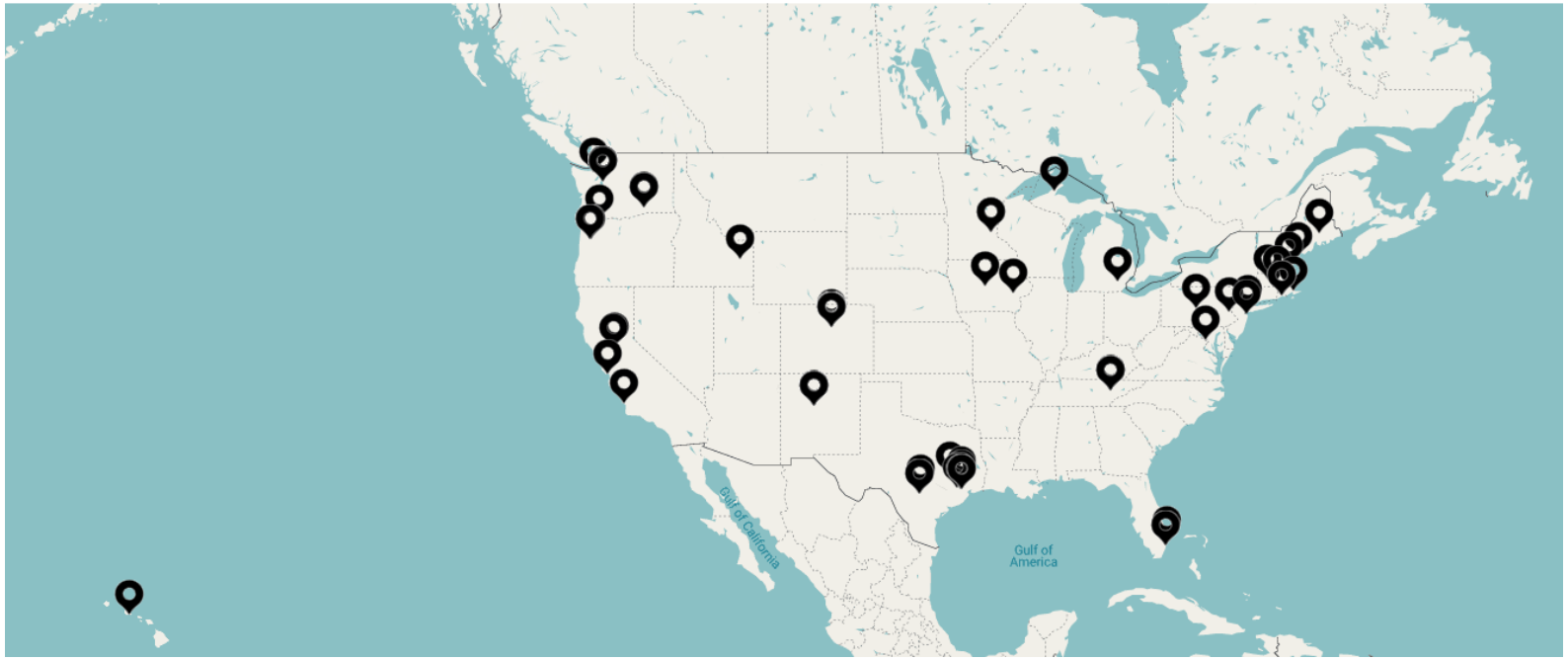
- Organizations may have no more than 4 active projects at one time.
- Applicants may not submit more than 2 applications per RFTS round.
- Applicants must demonstrate there are no co-dependencies between applications if more than one application is submitted per RFTS.
- Multiple facility applications are permitted but must demonstrate coordination between facilities.
- Applications may not exceed $200k for non-open water support or $400k for open water support.
- The maximum number of facilities permitted to jointly work on a single project has been raised from 2 to 3

TEAMER RFTS Projects to Date

- Currently supporting **201** projects thru **RFTS 15**
  - 33 projects complete (PAR Approved, Data Uploaded, Post Access Survey Complete)
  - 81 PARS received
    - 49 PARS approved
- Closed RFTS 16 on June 6, 2025
  - **RFTS 16 received 41 applications**
- RFTS 17 Application to close October 3, 2025
- Currently planning to support through RFTS 18
- Testing Categories:
  - Expertise (added in RFTS 7)
  - Numerical Modeling
  - Lab/Bench
  - Tank/Basin/Flume/Tunnel
  - Open-Water (added October 2021)
  - Commercialization (added in 2025)

Facility Network

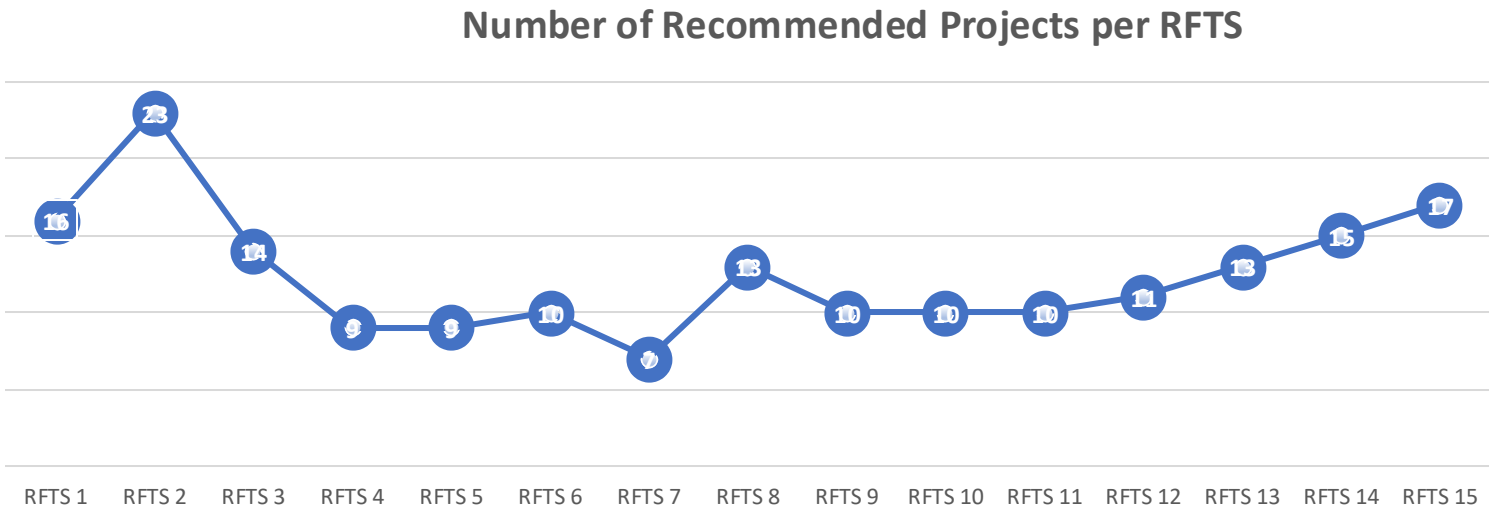
- 49 Facilities
- 131 Capabilities
  - 23 Bench/ Lab
  - 44 Numerical Modeling
  - 25 Tank/Basin/Flume/Tunnel
  - 29 Expertise
  - 10 Open Water
- 5 new facilities added from November 2024

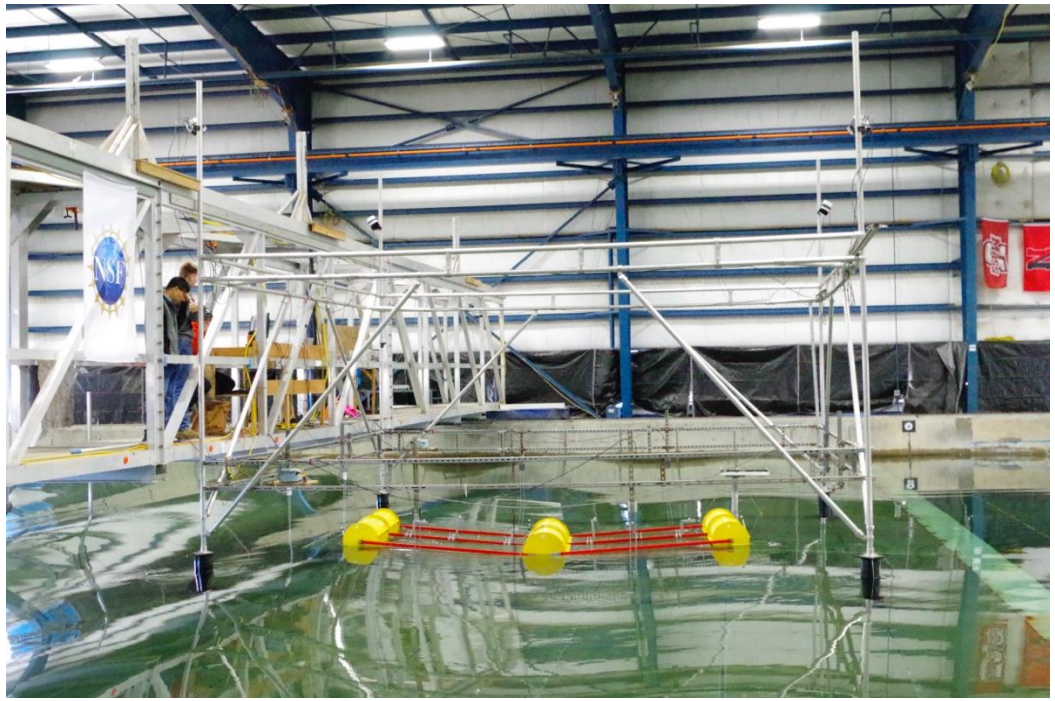


Overview by Year

Year	RFTS	Project
2020	RFTS 1	16
2021	RFTS 2, RFTS 3, RFTS 4	46
2022	RFTS 5, RFTS 6, RFTS 7	26
2023	RFTS 8, RFTS 9, RFTS 10	33
2024	RFTS 11, RFTS 12, RFTS 13	34
2025	RFTS 14, RFTS15	32
	Open Water	14

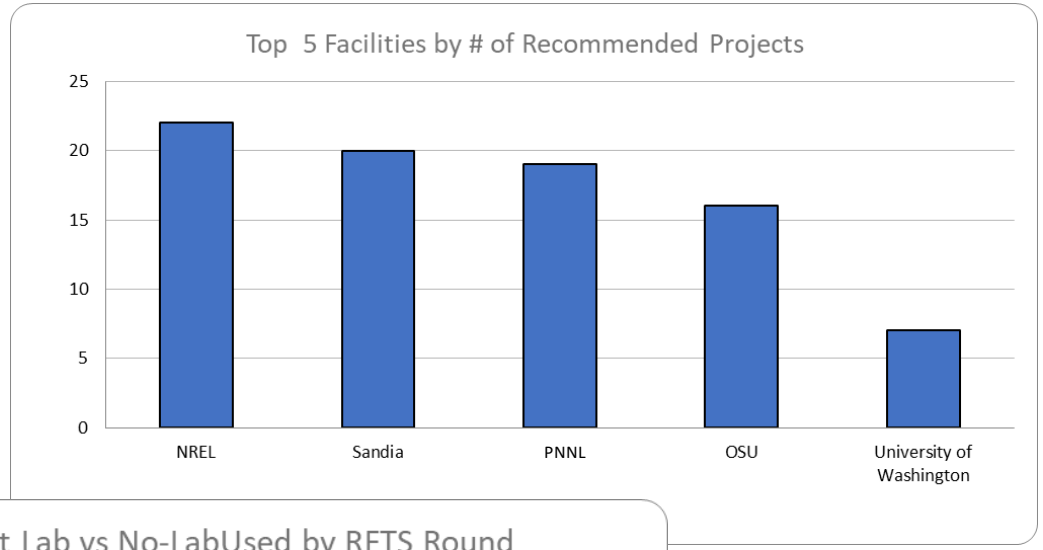
Comparison by RFTS

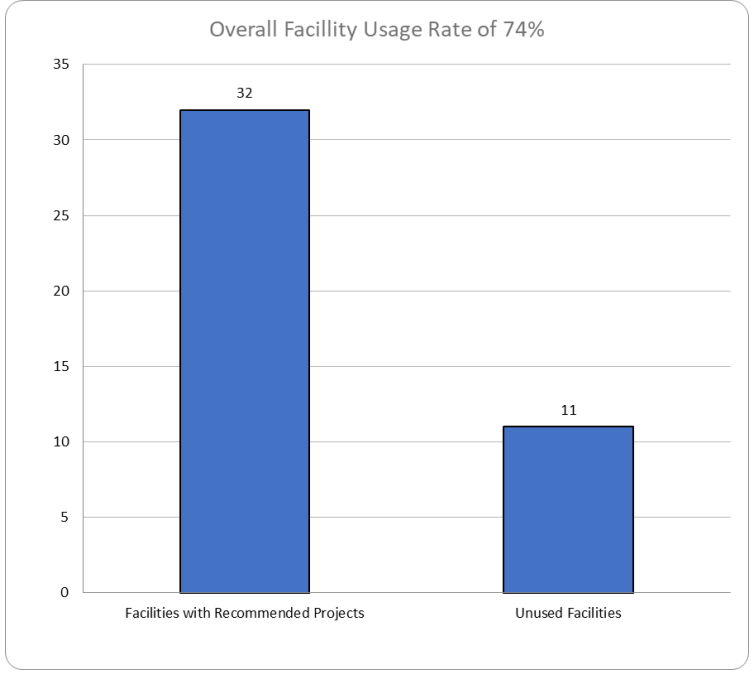


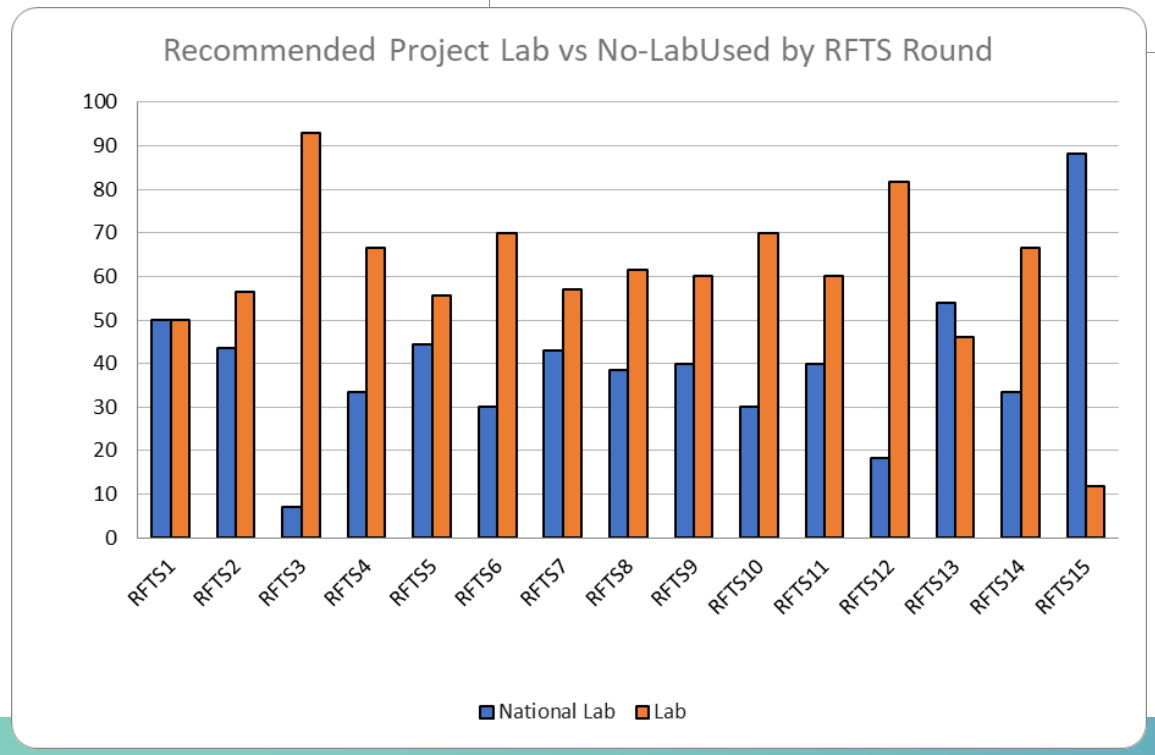


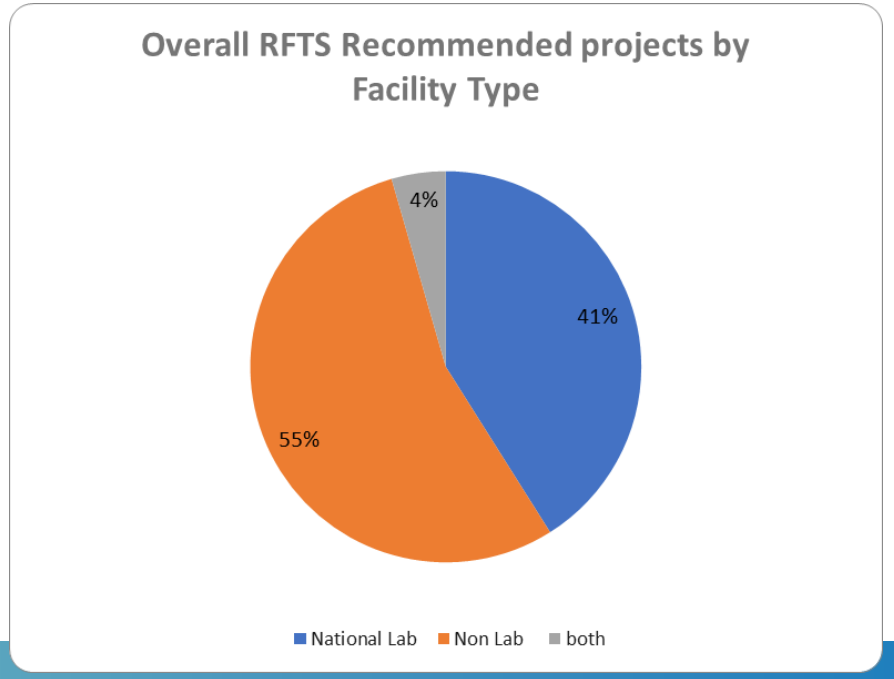
RFTS Round	Total Funding for Recommended Projects
RFTS 1	$1,574,498
RFTS 2	$1,767,983
RFTS 3	$1,250,817
RFTS 4	$1,158,403
RFTS 5	$867,000
RFTS 6	$1,021,050
RFTS 7	$766,307
RFTS 8	$1,379,364
RFTS 9	$1,245,492
RFTS 10	$1,057,109
RFTS 11	$1,288,468
RFTS 12	$1,124,224
RFTS 13	$2,099,925
RFTS 14	$1,895,192
RFTS 15	$2,354,241

Facility Usage



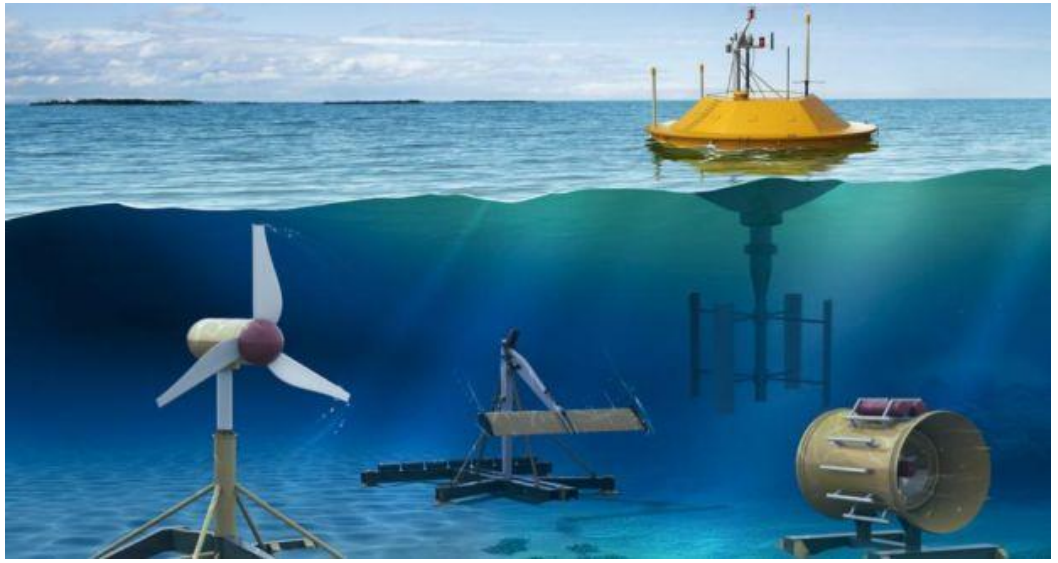






New Commercialization Category

- Preliminary application, evaluation criteria, test plan, and post access deliverables were developed by Jenny Wiegele (NREL).
- Held webinar where there was public interest in this type of support.
- Over 30 new commercialization support reviewers have been added into Submittable.
- The first two Commercialization support facilities were approved by the Technical Board (Yet2, & Factor Growth LLC).
- Provide support for things like Business Development and Strategy, Funding Continuity, Value Proposition and Market Validation Analysis, and much more



Budgets Changes Implemented in 2024

- Increased project budget caps from $150k to $200k for non-open water projects and from $250k to $400k for open water projects.

Non-Open Water – $200k

Open Water - $400k

- Increased RFTS travel stipend (Domestic) from $1k/week to $2k/week to accommodate rising travel prices

Conference & Publication Additions

- Added publication support – TSRs and Facilities can now apply for up to $30k in publication support to help better disseminate TEAMER-funded research.

- Added conference travel support – TSRs and Facilities can now apply for up to $5k in reimbursable travel support to present about their TEAMER work at a conference

Publication Development

Support for developing and publishing scientific articles about your findings

LEARN MORE & APPLY

Conference Travel

Support for travel-related expenses to present your findings

LEARN MORE & APPLY

Publication Development Support

TEAMER offers support of up to $30,000 for up to five recipients annually to aid in the development of journal publications. This support is open to both Technical Support Recipients (TSRs) and Facilities within the TEAMER Facility Network who are in the post-access stage of their projects, with an approved Post Access Report that has been completed no more than 3 months prior to application date. TSRs and/or Facilities must complete the TEAMER Publication Support Application to be considered for support. Funding is replenished annually and is distributed on a first come, first serve basis. Reach out to the Network Director prior to applying to ensure funding is still available for that year.

For more information, visit the **Publication Development Support Application**

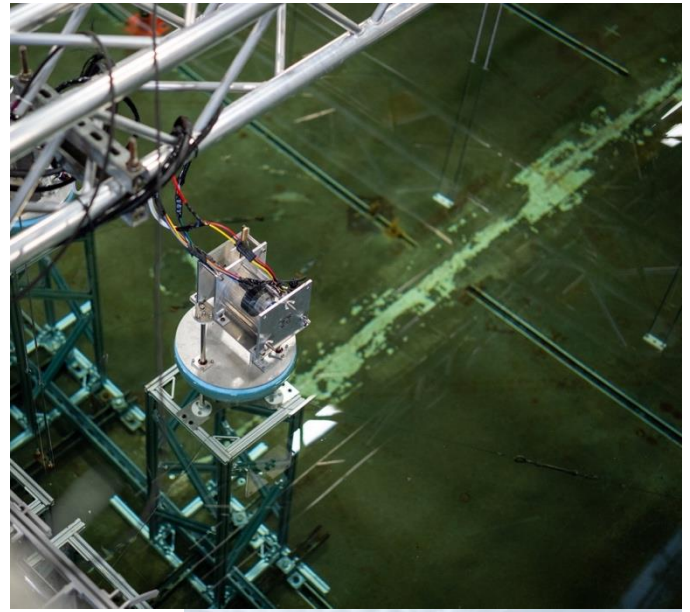
Conference Travel Support

Qualified TEAMER Technical Support Recipients (TSR) and Facilities may request up to $5,000 for reimbursable conference travel support. In order to be qualified for reimbursable conference travel support, you must fill out the TEAMER Conference Travel Support Application.

This support is offered to TEAMER TSRs and Facilities who have an ongoing TEAMER project in the post-access stage or have completed a project within 6-months of the conference travel support application submission date.

For more information, visit the **Conference Travel Support Application**

Site Visits (2024-2025)

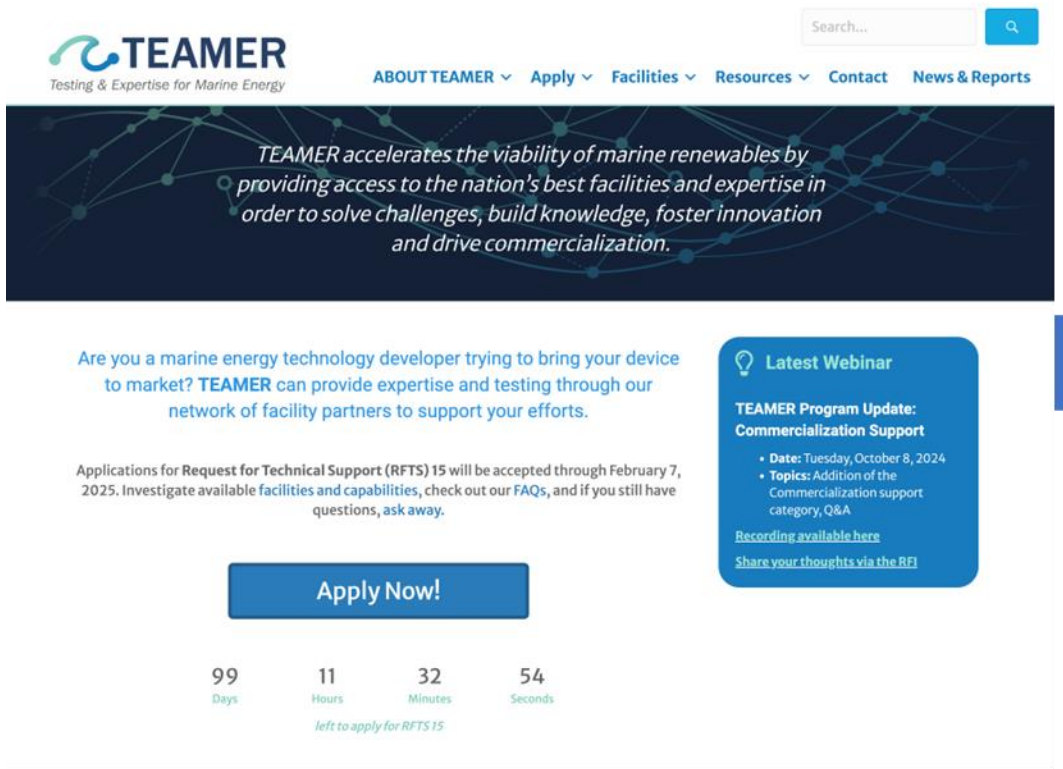


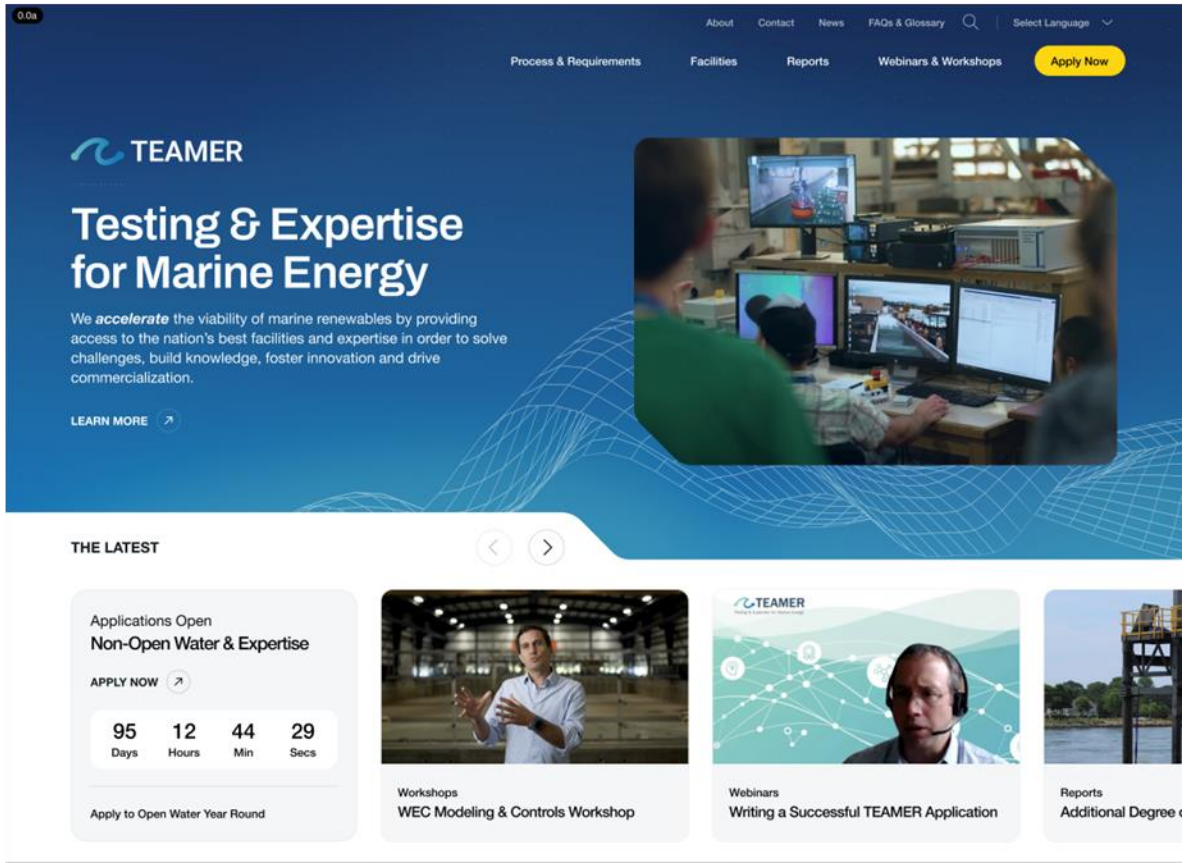
TEAMER Facility Visits during Testing

- LUPA OSU, O.H. Hinsdale Wave Research Lab – Corvallis, OR (RFTS 7)
- ORPC, University of Washington – Igiugig, AK (OW)
- MarineSitu, PNNL – Sequim, WA (OW)
- Triton Anchor, Texas A&M – College Station, TX (RFTS 8)
- John Nguyen, Oregon State University – Corvallis, OR (RFTS 5)
- Michigan Technological University (TSR) w/ Oregon State University (RFTS 10)
- Cornell University (TSR) w/ Oregon State University (RFTS 12)
- AOE Accumulated Ocean Energy (TSR) w/ Oregon State University (RFTS 11)

Website

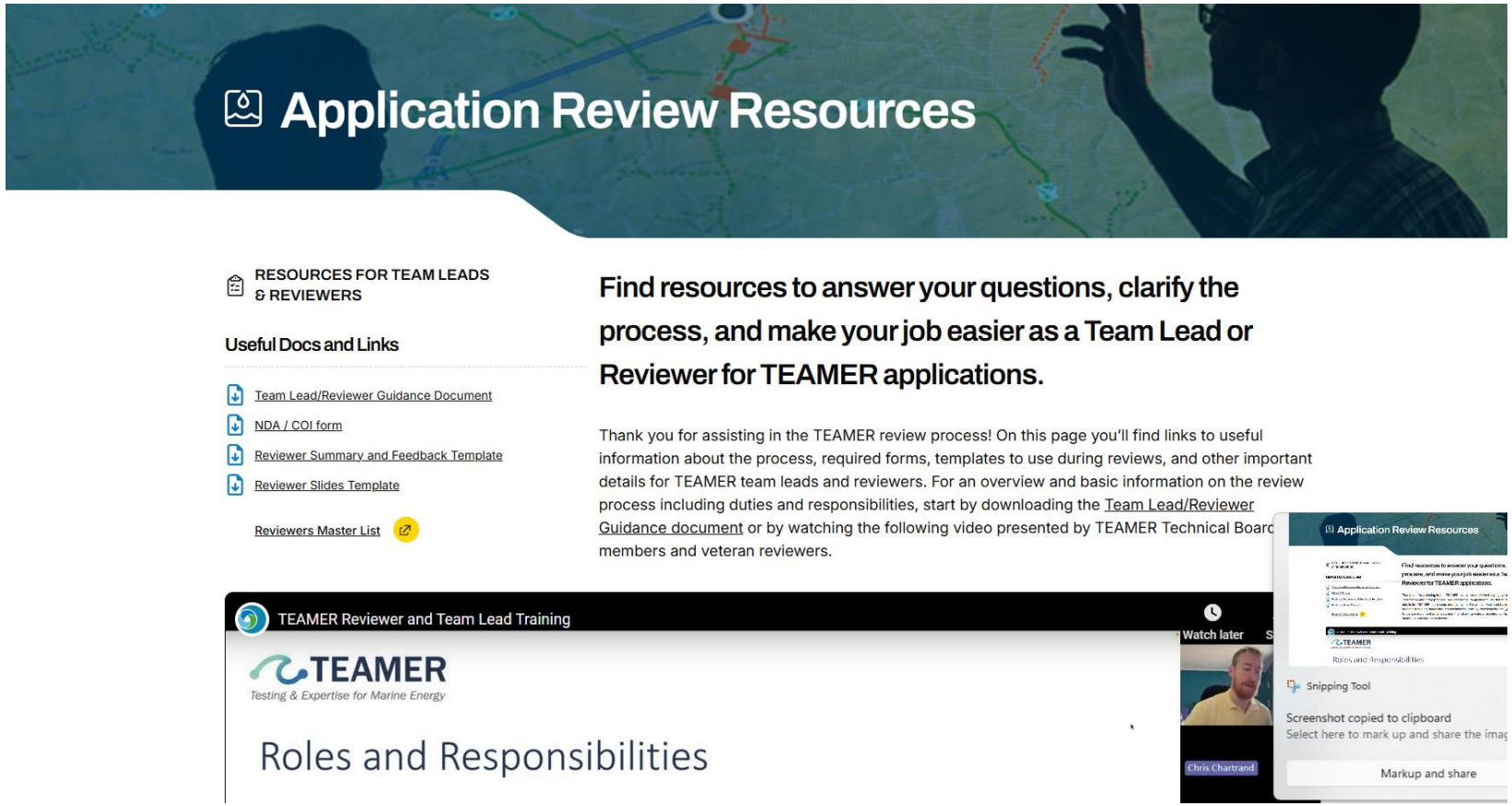
- New Website Lunched December 16, 2024





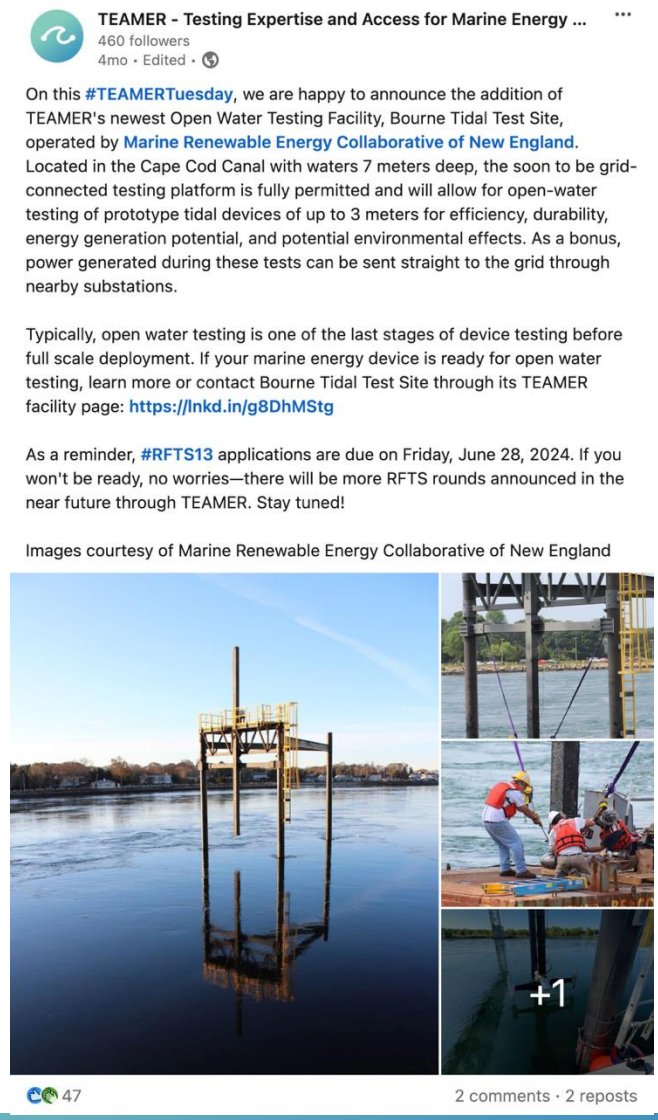
Website

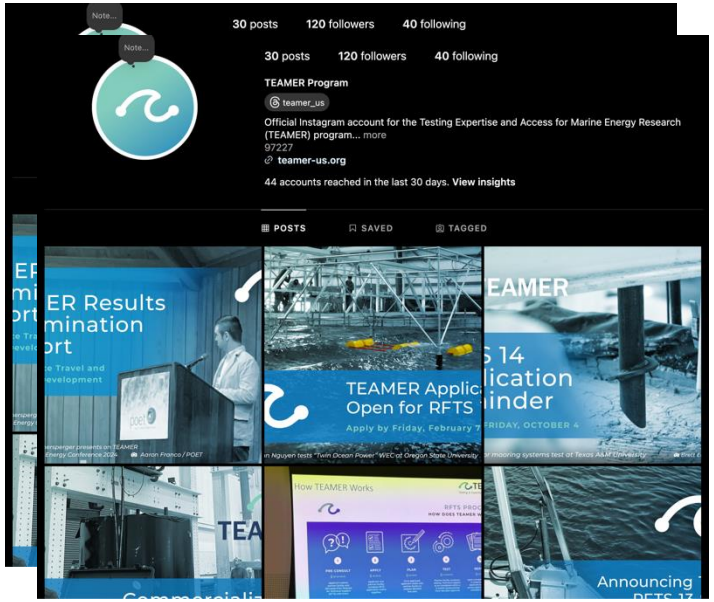
- TEAMER created a new Website “Application Review Resources” for the Technical Board, Teams Leads and reviewer, with documents and information to help them in the RFTS round process.



Engagement & Outreach

- Platforms: LinkedIn, Instagram
- #TEAMERTuesday posts so far in 2025: 18
- Main hashtags employed cover #RFTS news, #MarineEnergy, #Workshops, #TEAMERTuesday





Webinars and Workshops

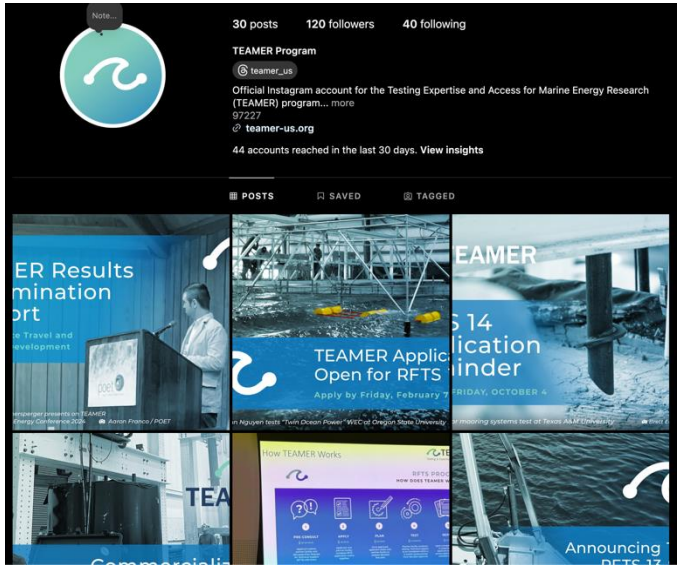
- Webinar:
  - 2024
    - TPL Assessment Webinar – 50 attendees; 56 views on YouTube
    - How to Write a Successful TEAMER Application -32 Attendees; 108 views on YouTube
    - TEAMER State of the Network – 35 attendees; 63 views on YouTube
    - Commercialization Support Webinar – 40 attendees; 29 views on YouTube
    - AMEC TEAMER Webinar – 30 attendees (not on YouTube)
  - 2025
    - How To Write A Successful Test Plan
    - The first (underutilized) Facility Showcase Webinar. Representatives from SWRI & OAK
    - Reviewer and Team Lead Training **for TL and Reviewer use**.
- Workshop in-person 2024:
  - WEC Modeling & Controls Workshop In person at Oregon State University - Hinsdale Wave Research Lab. – 39 participants

Dr. Johannes Spinneken gives a lecture on controls at the WEC Modeling and Controls Workshop. Photo credit: Brett Edwards, Spruce Studios.

Dissemination

- Conferences
  - Updated the conference materials
  - Attended the following conferences:
    - Feb 2024 – AGU Ocean Sciences, New Orleans
    - March 2024 -Water Power Week, Washington DC (presentation)
    - May 2024 – OREC+MECC, Portland, OR (presentation)
    - June 2024 – Ocean Technologies Conference, Houston, TX
    - August 2024 – UMERC+METS, Duluth, MN
    - September 2024 – International Conference on Coastal Engineering, Rome, Italy
    - September 2024 – International Conference on Ocean Energy, Melbourne, Australia (presentation)
    - November 2024 – Ocean Energy Europe, Aviemore, Scotland
    - March 2025 - NC Renewable Ocean Energy Symposium

- #TEAMERTuesday
  - Highlights new facilities
  - Project Changes
  - RFTS Announcements and Reminders



Processes and Updates

- Clearance for international reviewers and international shipping (without CO approval), international travel (with CO approval)

Processes and Updates

New facility Application

To reflect new evaluation criteria and allow for multiple facilities within an organization to be applied for at once.

New Facility Application – Updated 2024

SUMMARY OF CHANGES TO APPLICATION

- Applicants may now apply for up to five (5) new facilities from their institution to join at once.
- Facility evaluation criteria have changed. Please see https://teamer-us.org/wp-content/uploads/2024/10/TEAMER-NewFacility-EVALUATION-CRITERIA_2024-UPDATE.pdf for more the new criteria.

Facilities may apply to join the TEAMER Facility Network at any time. Please contact the TEAMER Network Director for more information if your facility would like to join the Network.

TEAMER Facilities are categorized under the following categories:

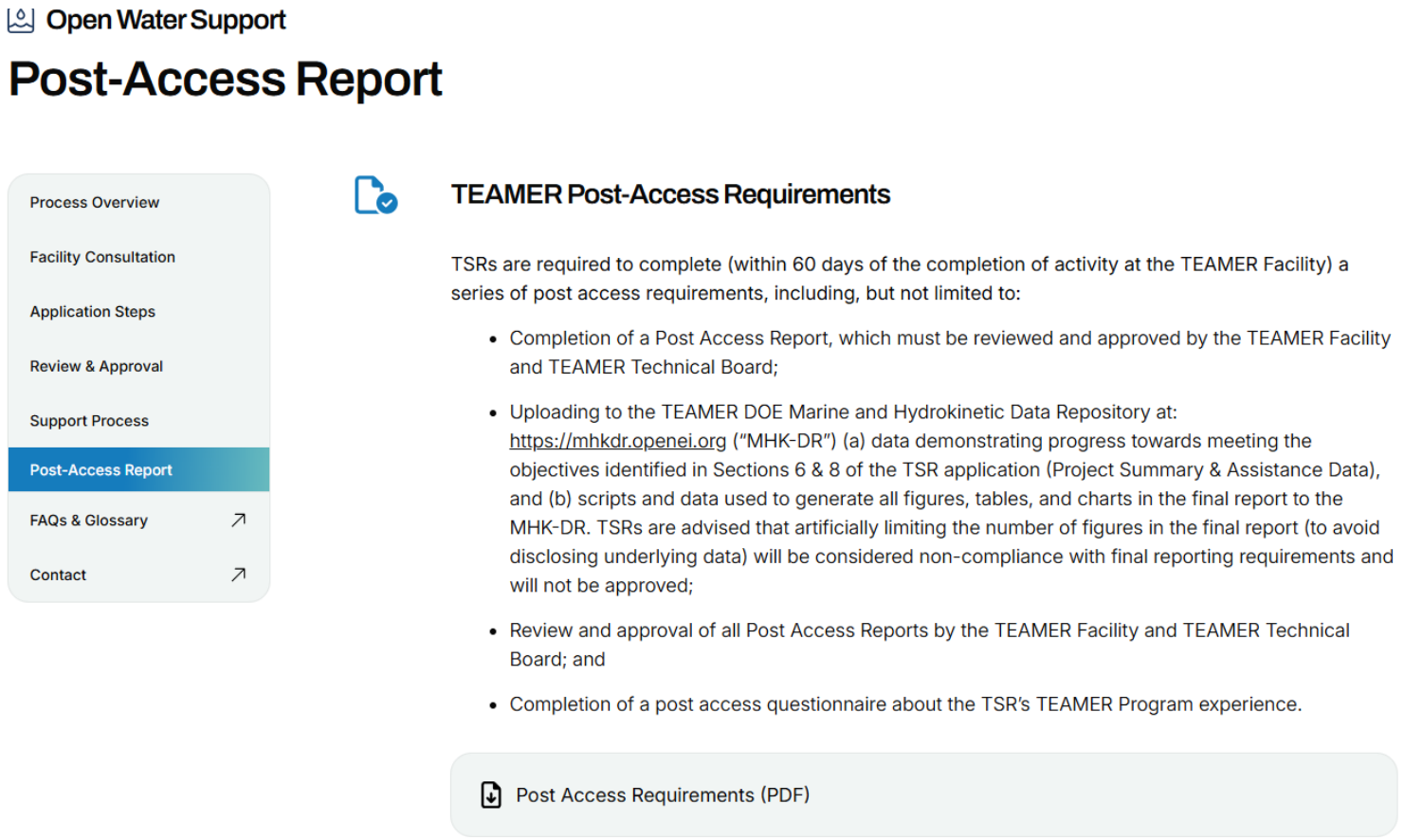
- Modelling & Analysis
- Lab & Bench Testing
- Tank, Flume, Tunnel or Basin Testing
- Expertise
- Open-Water Testing (Facilities and Capabilities)

If your facility has capabilities in more than one category, please submit separate applications for each category (e.g., one application for Lab & Bench Testing and one for Modelling & Analysis).

All TEAMER Facilities must be located in the United States.

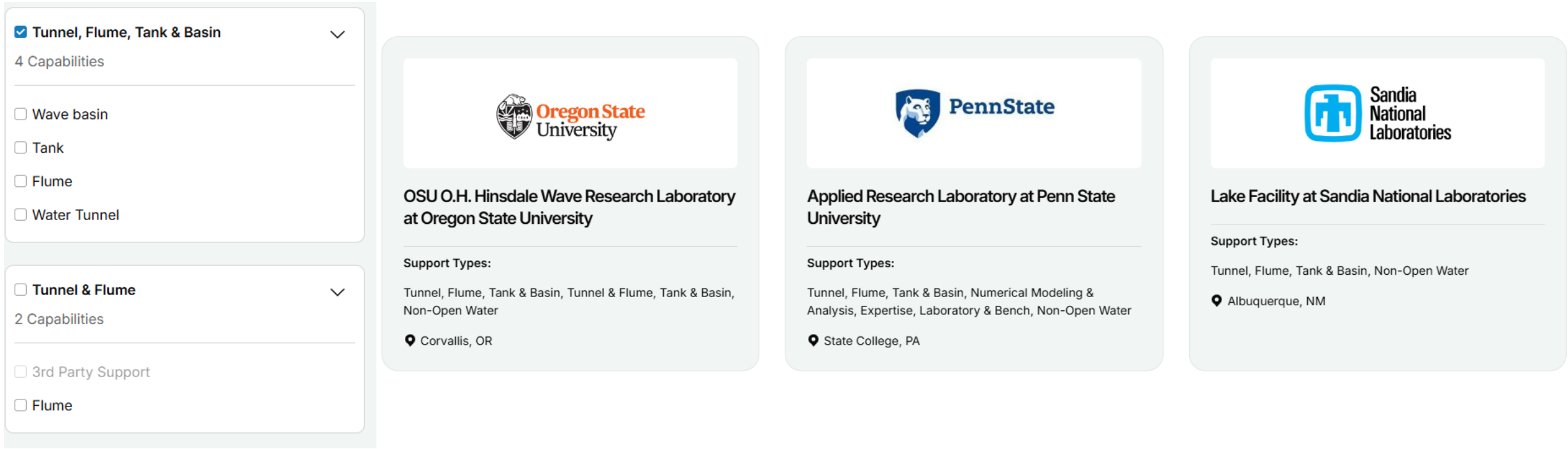
Processes and Updates

- Updated the Post Access Survey
- Updated the Post Access Requirements



Processes and Updates

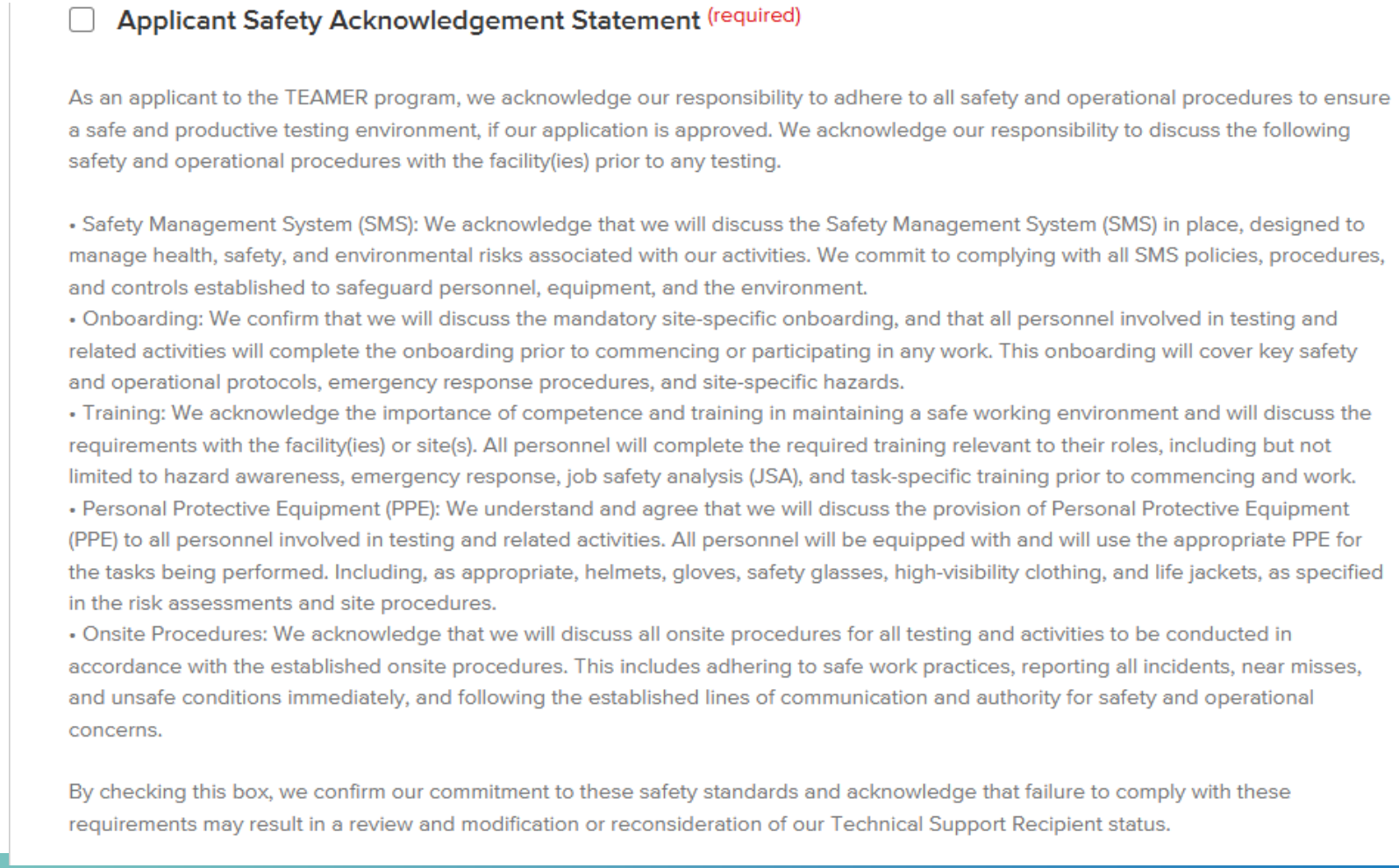
- RFTS Application to allow for up to 3 facilities to partner on one project. No rules or guidelines were changed.
- Expanded the internal compliance check to help make sure facilities are within their approved capabilities.



Processes and Updates

Safety

- Safety acknowledgement box in submittable and test plan



☐ **Applicant Safety Acknowledgement Statement** (required)

As an applicant to the TEAMER program, we acknowledge our responsibility to adhere to all safety and operational procedures to ensure a safe and productive testing environment, if our application is approved. We acknowledge our responsibility to discuss the following safety and operational procedures with the facility(ies) prior to any testing.

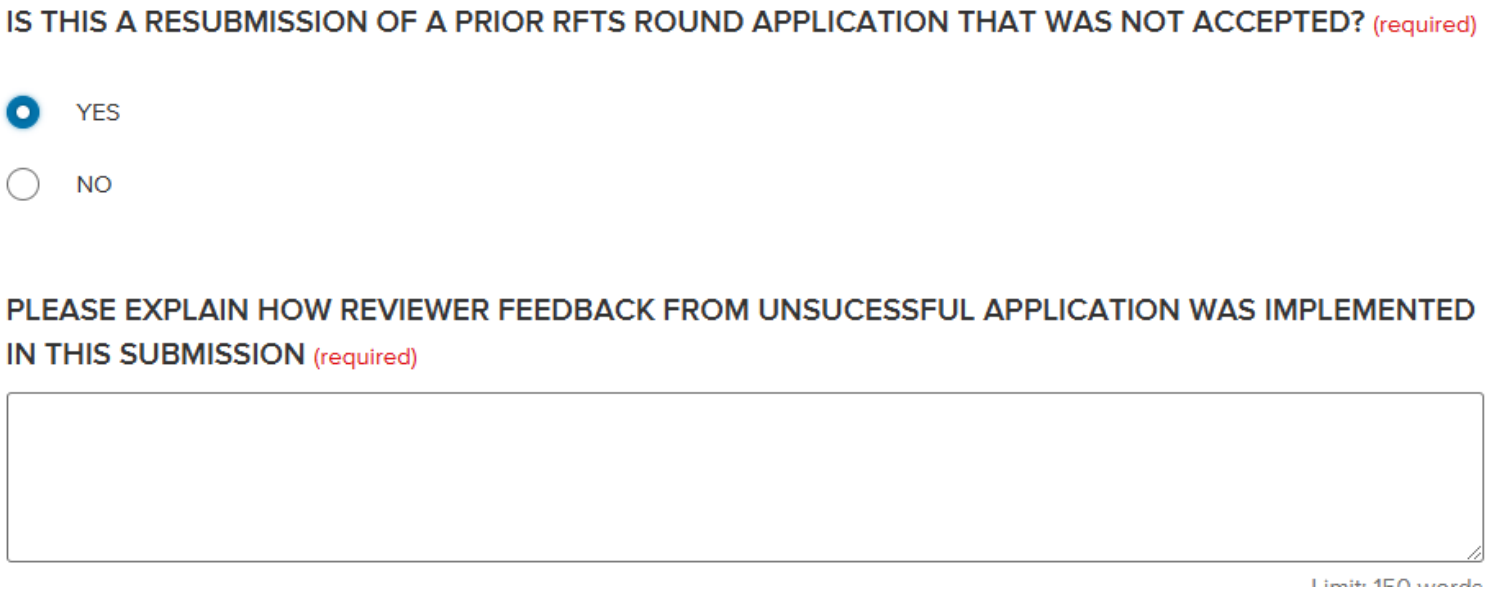
• Safety Management System (SMS): We acknowledge that we will discuss the Safety Management System (SMS) in place, designed to manage health, safety, and environmental risks associated with our activities. We commit to complying with all SMS policies, procedures, and controls established to safeguard personnel, equipment, and the environment.
• Onboarding: We confirm that we will discuss the mandatory site-specific onboarding, and that all personnel involved in testing and related activities will complete the onboarding prior to commencing or participating in any work. This onboarding will cover key safety and operational protocols, emergency response procedures, and site-specific hazards.
• Training: We acknowledge the importance of competence and training in maintaining a safe working environment and will discuss the requirements with the facility(ies) or site(s). All personnel will complete the required training relevant to their roles, including but not limited to hazard awareness, emergency response, job safety analysis (JSA), and task-specific training prior to commencing and work.
• Personal Protective Equipment (PPE): We understand and agree that we will discuss the provision of Personal Protective Equipment (PPE) to all personnel involved in testing and related activities. All personnel will be equipped with and will use the appropriate PPE for the tasks being performed. Including, as appropriate, helmets, gloves, safety glasses, high-visibility clothing, and life jackets, as specified in the risk assessments and site procedures.
• Onsite Procedures: We acknowledge that we will discuss all onsite procedures for all testing and activities to be conducted in accordance with the established onsite procedures. This includes adhering to safe work practices, reporting all incidents, near misses, and unsafe conditions immediately, and following the established lines of communication and authority for safety and operational concerns.

By checking this box, we confirm our commitment to these safety standards and acknowledge that failure to comply with these requirements may result in a review and modification or reconsideration of our Technical Support Recipient status.

Processes and Updates

Resubmission box

- There is an additional section for applicants to explain how the addressed prior reviewer feedback



TEAMER Testing Development Pathways – 11:00 – 12:00

Lunch – 12:00-13:00

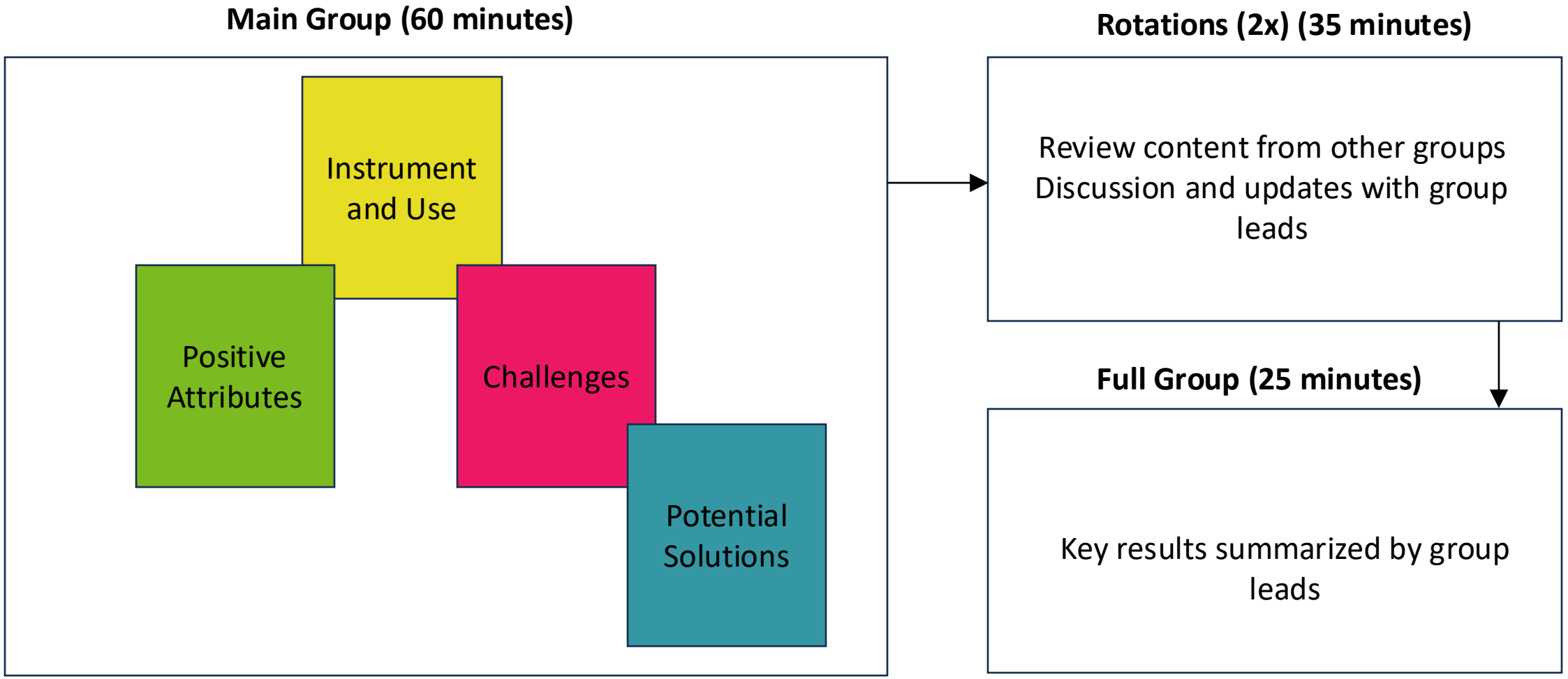
Small Group Discussion – 13:00- 15:30

Breakout 1: Instrumentation

Objectives

1. Break down barriers between facilities about sharing successes and challenges
2. Identify potential solutions to challenges

Activity Overview



Main Group (60 minutes)

Activity	Duration
Introductions and final questions	10 minutes
Instrument content generation (instrument, benefits, challenges)	20 minutes
Group common instruments [breakout lead]	5 minutes
Identify solutions to challenges	10 minutes
Group discussion • Did you learn anything new? • Are there common challenges you think could be addressed?	15 minutes [all contribute]

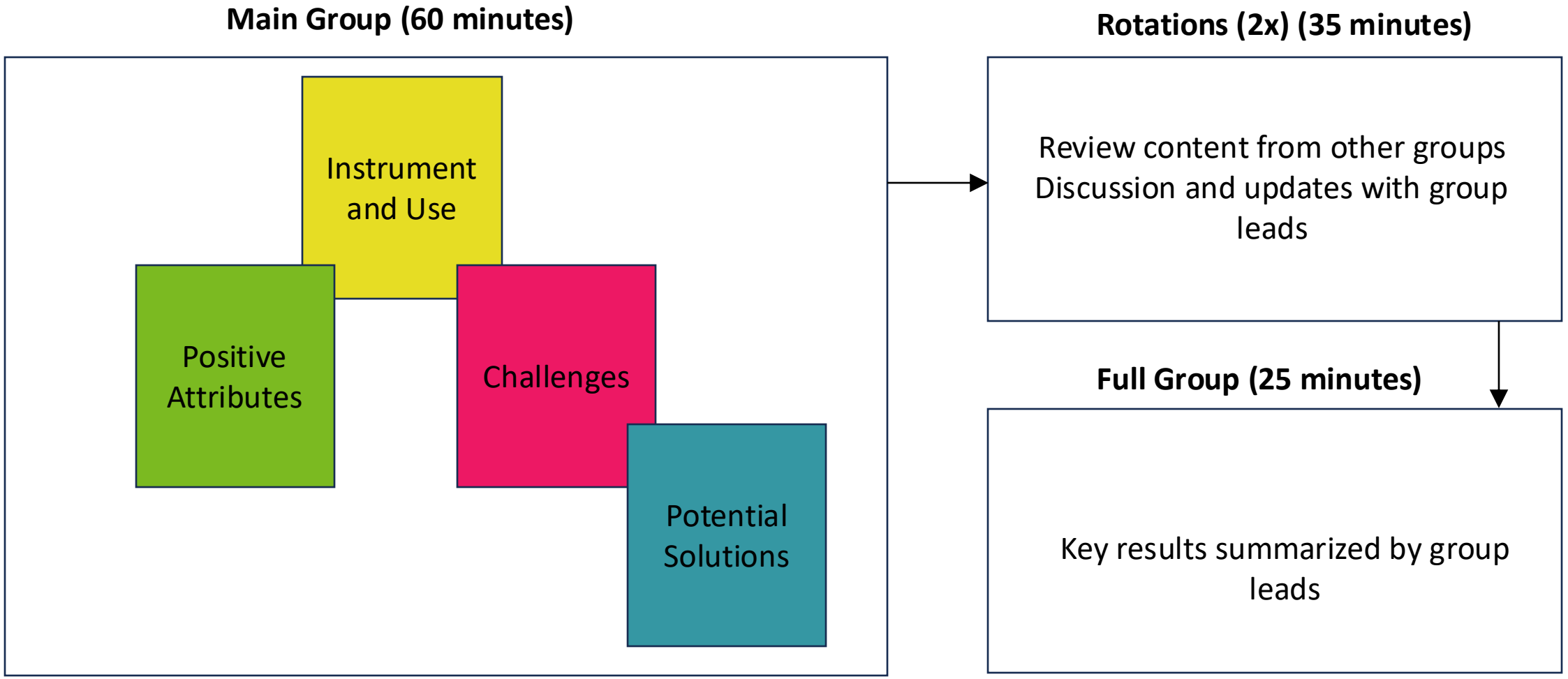
Break, Rotations, and Recap (65 minutes)

Activity	Duration
Break [leads develop summary notes]	15 minutes
Rotation 1 • Lead summarizes main points • New group reviews content • Discussion and additional points captured by lead	20 minutes
Rotation 2 [same as Rotation 1]	15 minutes
Full group report out	25 minutes

Group Assignments

Group 1	Group 2	Group 3	Group 4	Group 5
Brian Polagye (lead)	**Rob Cavagnaro (lead)**	**Pedro Lamonaco (lead)**	**Chris Bassett (lead)**	**Senu Sirnivas (lead)**
Amy Thompson	Bill Staby	Andrea Giles	Ben Loeffler	Anika Szuszman
HYUNSE YOON	Gonzo Eychner	Daniel Bateman	Derek Duckworth	Damian Gallegos-Patterson`
Jason Bundoff	Johannes Spinneken	Gordon Parker	George Bonner	Eduardo Cotilla-Sanchez
Jeff Marr	Jun Qu	Jia Mia	John Pappas	James Smith
Martin Wosnik	Lei Zuo	Krish Sharman	Kevin Maki	Muhammad Hajj
Zachary Campeau	Matthew Fowler	Pat Cross	Teresa Mathews	Nicholas Jaffa
	Tania Demonte Gonzalez	Rebecca Fao		

Activity Overview



Rotation Structure

Group Lead	Brian Polagye	Rob Cavagnaro	Pedro Lamonaco	Chris Bassett	Senu Sirnivas
Main Group	Group 1	Group 2	Group 3	Group 4	Group 5
Rotation 1	Group 5	Group 1	Group 2	Group 3	Group 4
Rotation 2	Group 4	Group 5	Group 1	Group 2	Group 3

Breakout 2: Testing Experiences and Best Practices

Objectives

1. Break down barriers between facilities about sharing successes and challenges
2. Identify common themes to shape best practices and avoid future challenges

Activity Overview

Main Group (70 minutes)

What were you trying to do? (objectives)	How were you trying to do this? (methods)	What did you learn?	What didn't work as intended? (methods, safety)	How have results been used?

Multiple chains per participant, anonymize tests with major issues

Discuss:

- Common themes across testing that was mostly successful
- Common themes across testing that was not entirely successful
- Approaches that could allow more tests to be successful

Rotations (2x) (35 minutes)

Review content from other groups
Discussion and updates with group leads

Full Group (25 minutes)

Key results summarized by group leads

Main Group (70 minutes)

Activity	Duration
Introductions and final questions	10 minutes
Experience content generation	20 minutes
Group common types of experiences and review	15 minutes
Group discussion • Any common themes across testing that was mostly successful? • Any common themes across testing that was not entirely successful? • What should we be doing to make more tests successful?	25 minutes [all contribute]

Break, Rotations, and Recap (90 minutes)

Activity	Duration
Break [leads develop summary notes]	30 minutes
Rotation 1 • Lead summarizes main points • New group reviews content • Discussion and additional points captured by lead	20 minutes
Rotation 2 [same as Rotation 1]	15 minutes
Full group report out	25 minutes

Group Assignments

Group 1	Group 2	Group 3	Group 4	Group 5
Brian Polagye (lead)	**Rob Cavagnaro (lead)**	**Martin Wosnik (lead)**	**Pat Cross (lead)**	**Senu Sirnivas (lead)**
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Jason Bundoff	Krish Sharman	Gonzo Eychner	John Pappas	Jun Qu
Jeff Marr	Matthew Fowler	Johannes Spinneken	Teresa Mathews	Kevin Maki
Muhammad Hajj	Pedro Lomonaco	Rebecca Fao		Lei Zuo
Nicholas Jaffa	Tania Demonte Gonzalez			Zachary Campeau

Activity Overview

Main Group (70 minutes)

What were you trying to do? (objectives)	How were you trying to do this? (methods)	What did you learn?	What didn't work as intended? (methods, safety)	How have results been used?

Multiple chains per participant, anonymize tests with major issues

Discuss:

- Common themes across testing that was mostly successful
- Common themes across testing that was not entirely successful
- Approaches that could allow more tests to be successful

Rotations (2x) (35 minutes)

Review content from other groups
Discussion and updates with group leads

Full Group (25 minutes)

Key results summarized by group leads

Rotation Structure

Group Lead	Brian Polagye	Rob Cavagnaro	Martin Wosnik	Pat Cross	Senu Sirnivas
Main Group	Group 1	Group 2	Group 3	Group 4	Group 5
Rotation 1	Group 5	Group 1	Group 2	Group 3	Group 4
Rotation 2	Group 4	Group 5	Group 1	Group 2	Group 3

Day 1 Agenda

08:00-09:00 - Breakfast

09:00-10:00- Introductions, expectations of the meeting

10:00-10:30 – Break

10:30-11:00 - TEAMER Overview

11:00-12:00 - TEAMER Testing Development Pathways

12:00-13:00 – Lunch

13:00-15:30- Small Group Discussion-Instrumentation

15:30-17:00/17:30-Facility Tour

Day 2 Agenda

08:00-08:30 - Breakfast

08:30-10:00 - NEPA Process (Cam Fisher-Environmental Science Associates)

10:00-10:30 – Break

10:30-11:00 - Partnerships between Facilities

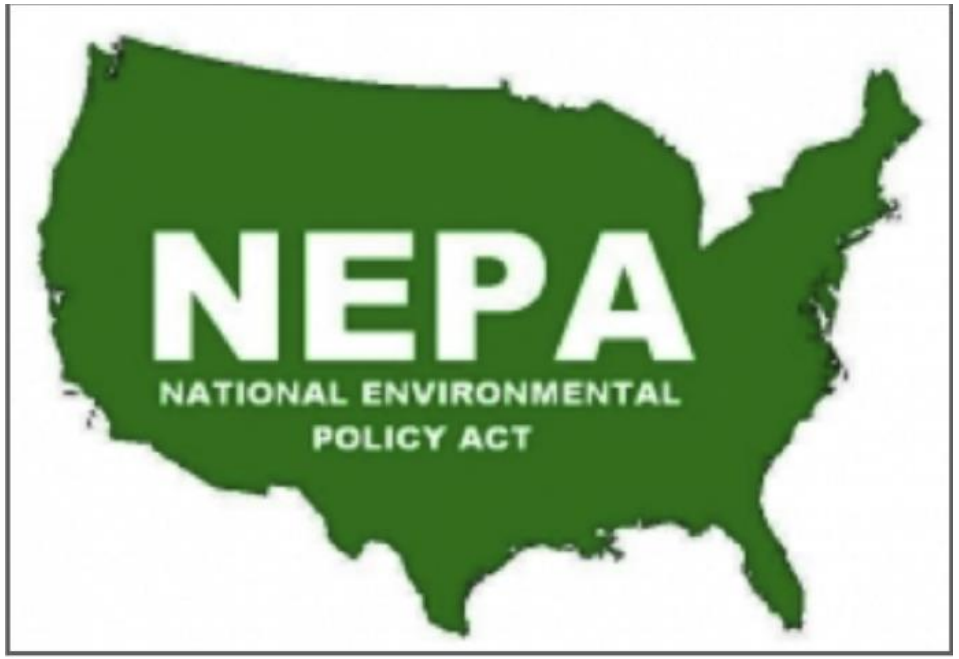
11:00-12:00 - Marketing/Promoting Your Facility

12:00-13:00 – Lunch

13:00-15:45 - Small Group Discussion -Testing Experiences and Best Practices

15:45-16:45 - Publication and Travel Support

16:45-17:30 - Closing Remark

Processes and Updates

NEPA