

Welcome to the Hydropower Testing Network (HyTN) Round 2 Informational Webinar (IW)

THIS WEBINAR IS RECORDED AND WILL BE PUBLISHED ONLINE

Warning:

**No .ai bots
permitted**

**AI bots will not be allowed in meetings and will be removed
from the attendee list per DOE requirements.**



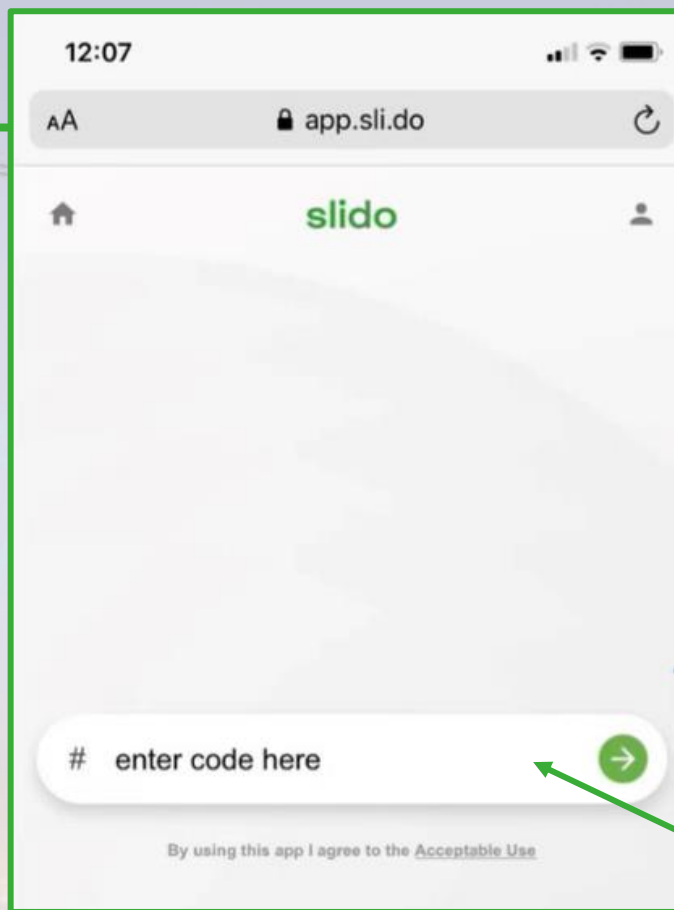
energywerx

Join our Ecosystem to stay up to date on all
ENWX opportunities by visiting www.energywerx.org
or scanning the **QR code**.



www.energywerx.org

Submit Questions in slido



Visit <https://app.sli.do/event/71hE7VxZkLHBtc4cMwNQRb>

... or ...

Scan the QR code below:



... OR ...

Go to www.slido.com, using your mobile device or web browser and enter event code:

VO6IW2

Warning:

**No .ai bots
permitted**

Questions in the Teams chat will not be answered.
Please only Submit all questions via Slido.

Hydropower Testing Network (HyTN) Voucher Opportunity (VO-6) Round 2

Hydropower & Hydrokinetic Office, U.S. Department of Energy

Informational Webinar

July 15, 2026



Mission

The Hydropower Testing Network (HyTN) Program, pronounced *heighten*, aims to **raise the technology readiness** of hydropower innovations by connecting **technology developers** to **testing facilities** and implementing targeted **testing** activities that lead to the deployment of **reliable hydropower** projects.



Voucher Program Mechanism



Voucher Opportunity

The voucher opportunity defines objectives and scope of voucher projects (eligible voucher providers and recipients, total funding level, expected max funding per voucher, etc.)



Selection & Matchmaking

ENERGYWERX coordinates process to select voucher providers/recipients, facilitates matching for voucher projects, and manages agreements with non-National Lab voucher providers to execute voucher projects.

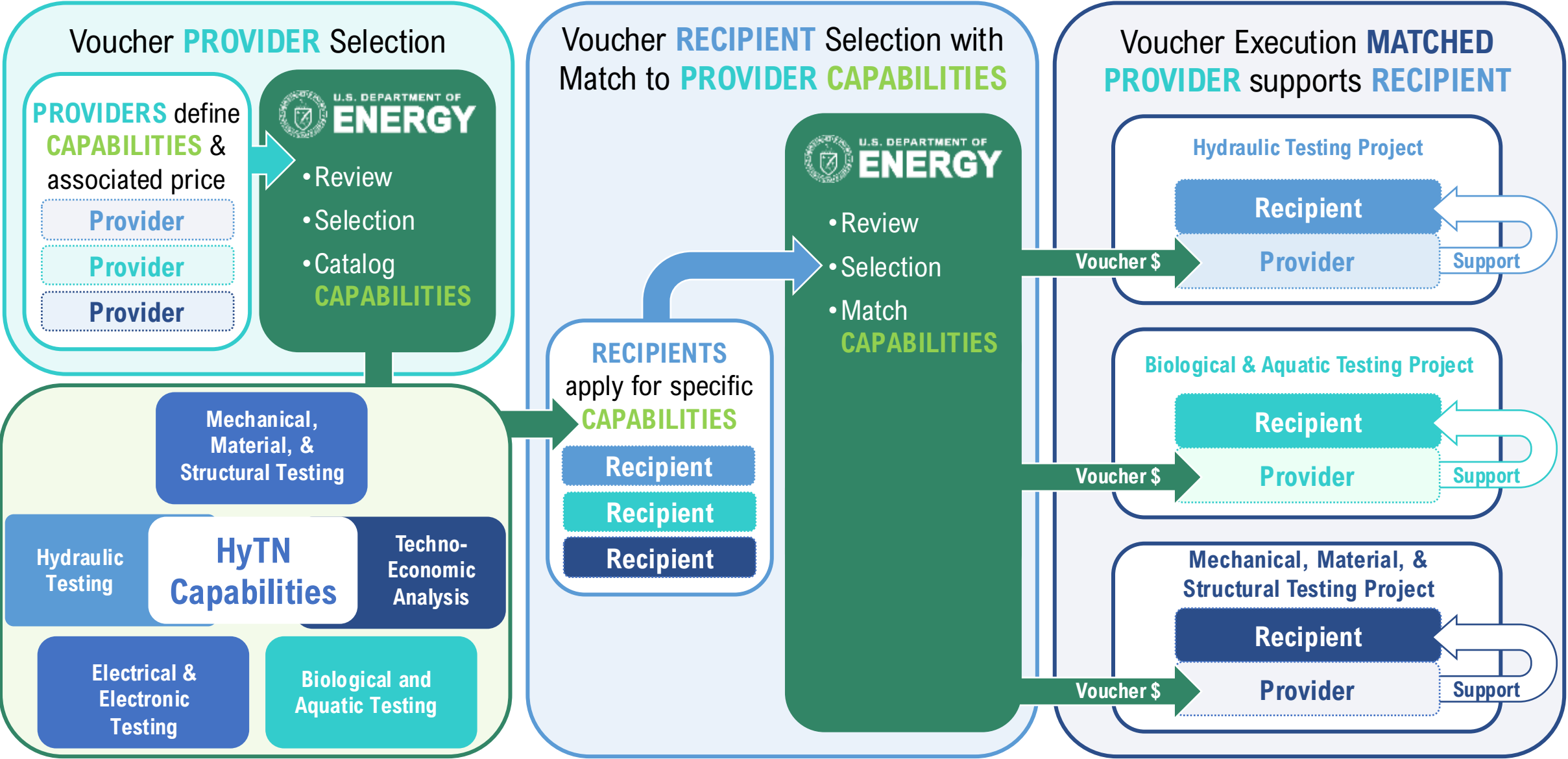


Voucher Project

Voucher providers execute according to their agreement, provide support to voucher recipient(s), and report back to DOE on project activities, outputs, and outcomes.



V06: Hydropower Testing Network Process



Who is the HyTN VO for?

Testing Facilities / **Voucher Providers**

U.S.-based national, federal, private, or university labs with one or more physical testing capabilities directly relevant to hydropower technologies.

Technology Developers / **Voucher Recipients**

U.S.-based for-profit companies, non-profit research organizations, or academic institutions developing a hydropower technology.

Example Facilities

- National labs
- Private labs
- University labs
- Hydraulic labs
- Mechanical, material, and structural labs
- Electrical and electronic labs
- Biological and aquatic labs

Voucher
Recipient

Voucher
Provider

Example Technologies

- Hydropower powertrain equipment,
- Structures, materials, and repair processes
- Electrical, electronic, and cybersecurity devices
- Environmental mitigation technology

HyTN VO-6 Scope

Hydropower Technologies

Testing & Evaluation

Purpose-built Laboratories

Technology Readiness Levels 3-7

Testing Activities

What are considered Hydropower Technologies?

- The equipment, materials, and structures used to support the construction and/or operation of hydropower projects, which capture the potential energy of flowing water over an elevation or pressure drop (referred to as head).
- Does not have to be directly related to electricity generation.

Capability Sub-categories

- | | | |
|--|---|---|
| • Artificial Intelligence | • Fish Passage Survival | • Sensors and Controls |
| • Advanced Manufacturing | • Friction Testing and Tribology | • Structural Integrity and Dam Safety |
| • Advanced Operational Modeling | • Generator Performance | • Surface Resistance |
| • Biofouling | • Geotechnical Applications | • Techno-Economic Analysis – Individual Technologies |
| • Computational Fluid Dynamics (CFD) | • Grid Integration and Interconnection Analysis | • Techno-Economic Analysis – Site Design and Assessment |
| • Cybersecurity | • Grid Integration (Hardware-in-the-loop) | • Toxicology, Biodegradability, and Bioaccumulation |
| • Environmental Monitoring | • Hydraulics Modeling | • Turbine Performance |
| • Finite Element Analysis/Modeling (FEA/FEM) | • Loading Testing | • Water Passage |
| • Fish Behavior and Entrainment | • Material Characterization | |
| | • Repair Methods | |
| | • Sediment Passage | |

HyTN VO-6 Scope

Hydropower Technologies

Testing & Evaluation

Purpose-built Laboratories

Technology Readiness Levels 3-7

Testing Activities

What is considered Testing & Evaluation?

- Hands-on experiments in a laboratory environment that involve hardware, such as a prototype, system, component, or coupon. Voucher recipients will be expected to provide a test article.
- Capabilities also include modeling, simulation, analysis, or other software services. Voucher recipients will be expected to provide at least a proof-of-concept design.

*Photo: Prepping cold spray repaired coupons for cavitation testing.
Credit: Andrea Starr,
Pacific Northwest
National Laboratory*



HyTN VO-6 Scope

Hydropower Technologies

Testing & Evaluation

Purpose-built Laboratories

Technology Readiness Levels 3-7

Testing Activities

What are Purpose-built Laboratories?

- Must be a HyTN approved facility that is permitted and operated to support research and development activities.
- Field testing is not within scope.
- Must be compliant with the HyTN NEPA (National Environmental Policy Act) determination.
- Facilities test with living organisms will be required to fill out an additional form upon selection (may or may not require an additional NEPA determination).

HyTN VO-6 Scope

Hydropower Technologies

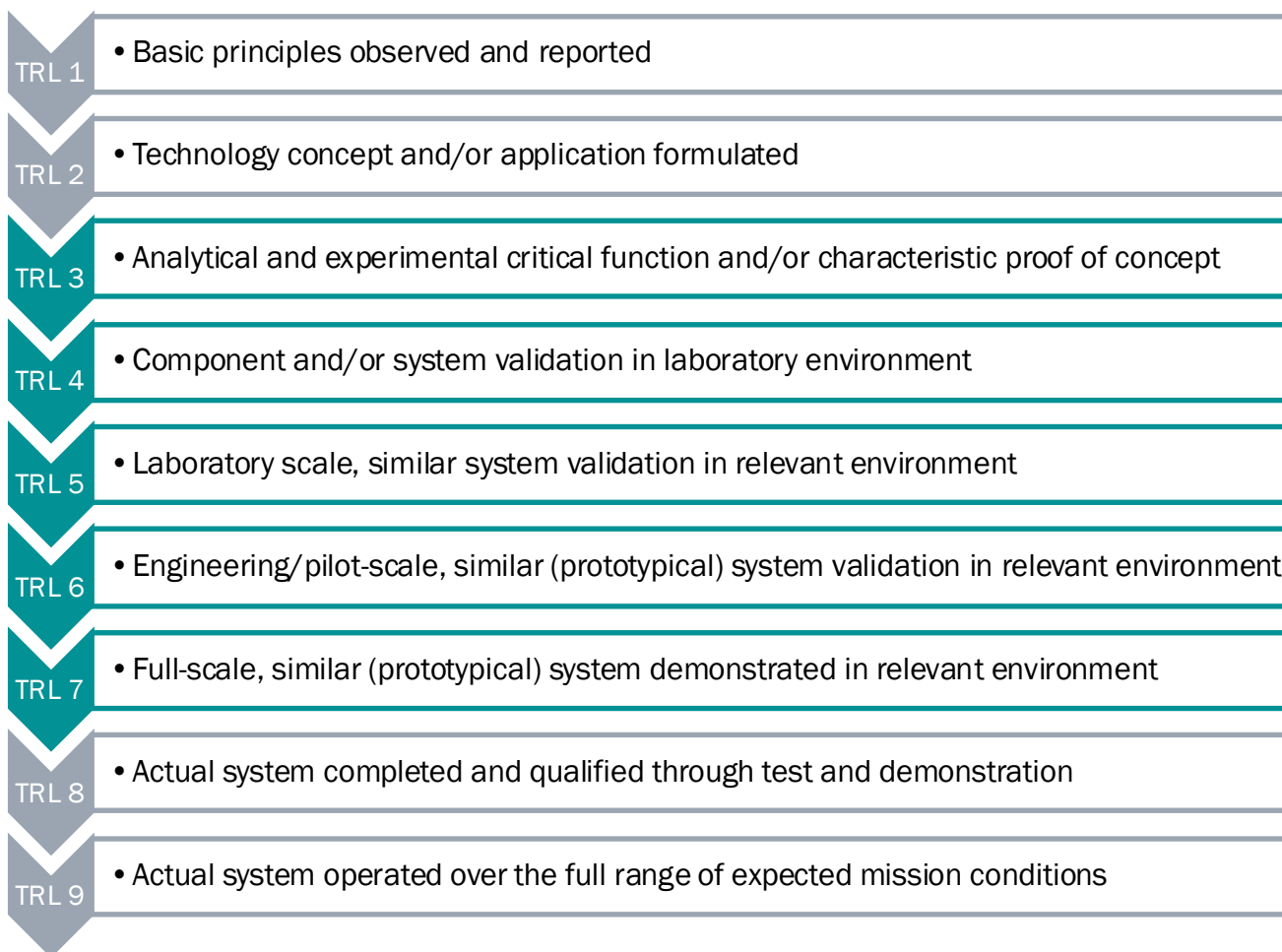
Testing & Evaluation

Purpose-built Laboratories

Technology Readiness Levels 3-7

Testing Activities

Technology Readiness Levels



HyTN VO-6 Scope

Hydropower Technologies

Testing & Evaluation

Purpose-built Laboratories

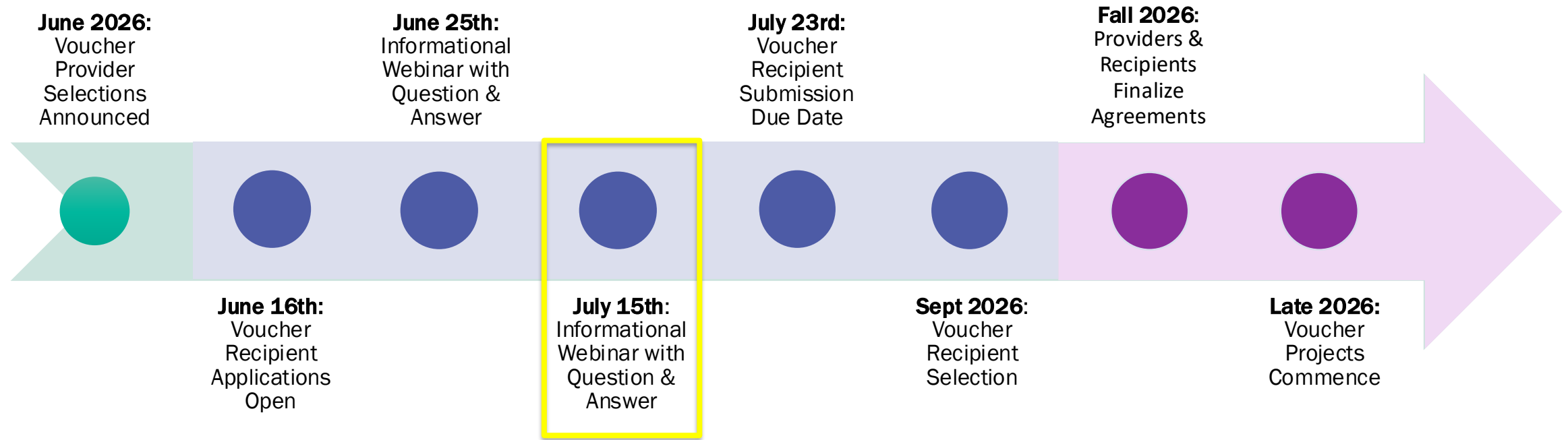
Technology Readiness Levels 3-7

Testing Activities

Other considerations

- Activities should be scoped to less than one year of work from start of the contract.
- Activities should be scoped to \$50k - \$250k.
- Voucher cost and duration should include time needed to complete the five milestones.
- Activities should not include manufacturing for commercial production.

HyTN Voucher Opportunity-6 Timeline



Timeframe subject to change

Recipient Submission Form

General Information and Entity Classification

- General information about the entity including points of contact and applicable identifiers

Technology and Project Overview

- Specific questions on the technology, company, and project objectives.

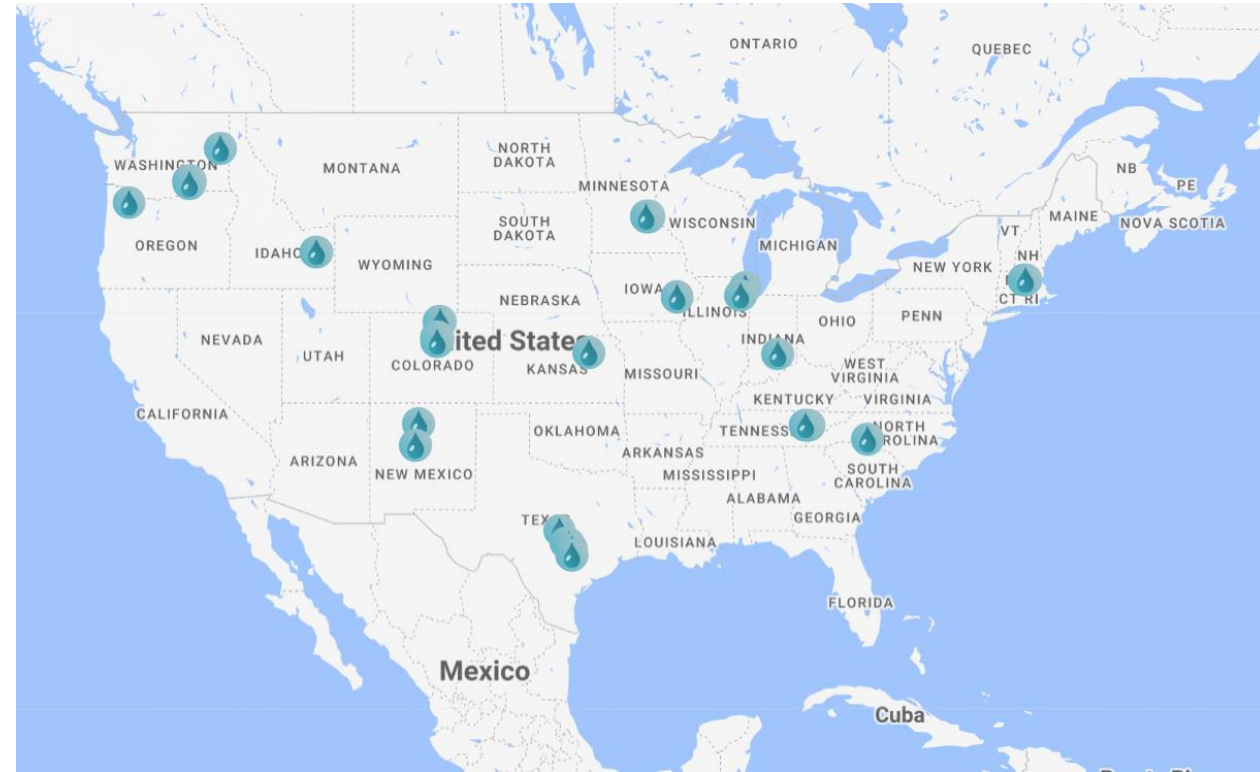
Capability Selection and Justification of Need

- Apply for up to 3 HyTN capabilities, describing how/why they would help with technology development and providing facility requested information.

Sample Application Questions are available on the ENWX VO Webpage under Quick Links:
[Voucher Opportunity 6 - Hydropower Testing Network \(HyTN\) \(Recipients\) - Round 2 Jul 23, 2026](#)

HyTN Capabilities

- 21 facilities providing over 65 unique capabilities
- Facility information can be found:
 - HyTN Website
 - <https://openei.org/wiki/HyTN>
 - Quickly sort and filter capabilities
 - HyTN Capability Overview
 - Voucher Opportunity 6 - Hydropower Testing Network (HyTN) (Recipients) - Round 2 Jul 23, 2026
 - Excel Document in the Quick Links section of the ENWX VO webpage



Recipient Submission Tips

- Carefully **read all instructions** and help texts.
- **Be as specific as possible** – clearly describe the expected outcomes of the voucher project to set expectations and facilitate matchmaking
- Review facility descriptions and **contact the capability** to discuss your potential project. Provide the best available information to facilitate matching though more detailed information can be provided during project agreement development.
- If the application needs to be completed at a later time, make sure to **press “Save Draft” to avoid losing your progress.**
- Items marked with ** may be shared with providers or used for public communications as defined in the HyTN Program Rules and HyTN IP Management Plan.
- **Do not include any confidential, proprietary, or privileged information in your submission.**

Recipient Eligibility

- Eligible applicants (Voucher Recipients and Voucher Providers) must meet the following criteria:
 - Applicant qualifies as a domestic entity, and
 - Applicant must certify it is not owned by, controlled by, or subject to the jurisdiction or direction of a government of a country of risk.
- Please review website eligibility language for more information on these definitions
- Organizations may apply as both a Voucher Provider and Voucher Recipient but may NOT apply for Voucher services from their own capability list

Submissions should showcase:



Relevance to Hydropower

- The application demonstrates a direct relevance and benefit to advancing the technology readiness of a feasible, cost-effective, and scalable hydropower technology.



Advances Technology Readiness

- The application requires testing or evaluation capabilities within the network that can lead to clear advancements in technology readiness.



Eligibility

- The proposed technology fits within TRL 3-7.
- The application contains no external dependencies or scope duplication of other federally funded work.



Capable and Available

- The application is complete and indicates the necessary expertise and availability of the applicant team to work with a test facility to develop a test plan, complete the test and/or evaluation activities, and analyze the results to inform refinements to the technology.



Achievable

- The scope and duration of the proposed project activities are reasonable, feasible, and within the intended purpose of the HyTN program.

Contracting the Voucher Providers and Recipients

The type of contract or agreement used depends on the type of Voucher Provider (Testing Facility). No cost share is required.

	National Labs (FFRDCs)	Private Labs and Universities	Federal Labs
H2O/ENWX Engaging with the Voucher Provider	H2O establishes an Annual Operating Plan (AOP) with the national lab.	ENERGYWERX establishes a Research Development Agreement (RDA) with the provider.	H2O establishes and Interagency Agreement (IAA) with the federal lab.
H2O/ENWX Engaging with the Voucher Recipient	The recipient acts as a project partner on the AOP and establishes a Non-Disclosure Agreement (NDA) and/or Cooperative Research & Development Agreement (CRADA) with the lab.	ENERGYWERX establishes a Memorandum of Understanding (MOU) that documents the expected nature of engagement between the parties.	The agreement mechanism with the voucher recipient will depend on the preferences of the federal agency.

HyTN Milestones

- Projects have 1 year from the contract start to complete work
- Voucher providers are responsible for submitting five standardized milestones to receive funding (templates will be provided and can be found on the [HyTN | Open Energy Information](#) webpage)

List of Project Agreements

Agreement Name	Purpose Description	Date Completed	Expiration Date (If applicable)
Create one row for each agreement.	Provide a brief description of the agreement purpose and covered activities.	MM/DD/YYYY	MM/DD/YYYY
Ex. Cooperative Research and Development Agreements (CRADA), Ex. Site access paperwork Ex. Non-disclosure agreement (NDA)			

Comments or Concerns

Please use this section to describe any challenges or risks that may affect project scope or schedule related to these agreements. If risks are described, please describe any risk mitigation measures. Use this section to describe any other comments that the HyTN point of contact should be aware of. If there are no risks or comments, please state "No identified risks or comments at this time."

Signatures

Voucher Provider Signature _____ Voucher Recipient Signature _____

Milestone 1
Memorandum of Agreement verification

Hydropower Testing Network (HyTN)
Voucher Opportunity
Milestone 2: Test Plan

Project Name _____

Voucher Provider (Test Facility)
Test Facility Name: Facility Name
Point of Contact Name: POC Name
Point of Contact Email: POC Email

Voucher Recipient (Technology Developer)
Recipient Organization Name: Organization Name
Point of Contact Name: POC Name
Point of Contact Email: POC Email

Date: MM/DD/YYYY
Submit to: HyTN Point of Contact Name

Milestone 2
Test plan describing the scope and schedule

Hydropower Testing Network (HyTN)
Voucher Opportunity
Milestone 3: Testing Progress Update Presentation

Project Name _____

Voucher Provider (Test Facility)
Test Facility Name: Name
Point of Contact Name: Name
Point of Contact Email: Email

Voucher Recipient (Technology Developer)
Recipient Organization Name: Name
Point of Contact Name: Name
Point of Contact Email: Email

Date: MM/DD/YYYY
Submit to: HyTN Point of Contact Name

Milestone 3
Testing progress update presentation

HYDROPOWER TESTING NETWORK (HyTN)

Title _____

Milestone 4
Project Summary Report

Hydropower Testing and Standards Questionnaire

Hosted by: ORNL

Share your expertise by completing a short questionnaire to help the U.S. Department of Energy implement strategies for standardizing hydropower testing and advancing technology readiness. This questionnaire is hosted by Oak Ridge National Laboratory (ORNL).

Milestone 5
End of Project Questionnaire

Thank you for your time!
Q&A



Thank you for attending the Hydropower Testing Network (HyTN) Round 2 Informational Webinar (IW)



- This recording, transcript, and FAQ will be uploaded to the ENERGYWERX website
- If you have any additional questions, please email info@energywerx.org



/ENERGYWERX



/ENERGYWERX



www.energywerx.org