



Funding Opportunities

August 29, 2022

Department of Energy, Advanced Manufacturing Office (RFI) Integration of Onsite Clean Energy Technologies in the Industrial Sector | Deadline: September 23, 2022

Summary: The U.S. Department of Energy (DOE) has issued a Request for Information (RFI) that seeks input on the *Barriers and Pathways to Integrating Onsite Clean Energy Technologies in the Industrial Sector*. These technologies include—but are not limited to—solar photovoltaic, solar thermal, wind power, renewable fuels, geothermal, battery storage, and thermal storage.

In particular, the Advanced Manufacturing Office (AMO) would like feedback on:

1. The current state of onsite clean energy technology use in the industrial sector
2. Opportunities and barriers for onsite clean energy technology deployment
3. Existing technical assistance and resources available for onsite clean energy projects
4. Pathways to accelerate the adoption of onsite clean energy technologies
5. Workforce development opportunities and equity considerations for programmatic planning

Feedback is welcome from end-users of onsite systems for details on the challenges they face, as well as from academia, research laboratories, state and local policymakers, utilities, regulators, government agencies, community-based organizations, and more..

Additional Information: [DE-FOA-0002830](https://www.doe.gov/foia/0002830)

Department of Energy, Wind Energy Technologies Office (RFI) Bat Deterrent Technology Solutions | Deadline: September 16, 2022

Summary: The U.S. Department of Energy's (DOE's) Wind Energy Technologies Office (WETO) has issued a Request for Information seeking input on the status and research

needs related to bat deterrent technologies, which will help inform a potential Funding Opportunity Announcement aimed at advancing bat deterrent technology solutions.

Potential impacts on bats are a significant environmental concern for land-based wind energy deployment and operation. Bat species of concern collectively have ranges that cover the entire continental United States, and if listed as threatened or endangered under the Endangered Species Act, could impede the development or operation of wind farms. In an effort to address this concern, DOE and wind energy stakeholders have explored options to minimize bat fatalities around wind turbines.

This RFI seeks input related to 1) bat behavior research needed to inform advanced deterrent development, 2) field research need for validation and acceptance of deterrent technologies, and 3) deterrent hardware research needs to ensure seamless deterrent integration with wind turbines, and long-term reliability and effectiveness.

Additional Information: [DE-FOA-0002825](https://www.energy.gov/foia/foia-0002825)

**Department of Energy, Office of Energy Efficiency and Renewable Energy
Funding Opportunity in Support of the Hydrogen Shot and a University Research Consortium on Grid Resilience | **Concept Paper: September 23, 2022 / Full Proposal: December 1, 2022****

Summary: The research, development, and demonstration (RD&D) activities to be funded under this FOA will support the government-wide approach to the climate crisis by driving innovation that can lead to the development and deployment of clean energy technologies, which are critical for climate protection. Specifically, this FOA will support the goals of DOE's Hydrogen Shot, which targets affordable clean hydrogen production at \$1/kg within the decade, and the H2@Scale Initiative, which aims to advance affordable hydrogen production, transport, storage, and utilization to enable decarbonization and revenue opportunities across multiple sectors. The FOA will also target electricity grid resilience, a crosscutting DOE priority in which hydrogen and other renewable and energy efficiency technologies will play a key role. Modernizing and expanding the electricity grid will make the nation's energy sector more resilient, while enabling the buildout of affordable, reliable, clean energy to support President Biden's goal of 100% clean power by 2035.

This FOA targets two areas of interest focused on supporting the DOE Hydrogen Shot on behalf of the Hydrogen and Fuel Cell Technologies Office and a second EERE-wide topic area focused on grid resilience through a university research consortium:

Area of Interest 1: Hydrogen and Fuel Cell Technologies in Support of Hydrogen Shot

- Topic 1: HydroGEN: Solar Fuels from Photoelectrochemical and Solar Thermochemical Water Splitting
- Topic 2: Development and Validation of Sensor Technology for Monitoring and Measuring Hydrogen Losses
- Topic 3: Materials-based H2 Storage Demonstrations
- Topic 4: M2FCT: High Performing, Durable, and Low-PGM Catalysts/Membrane Electrode Assemblies (MEAs) for Medium- and Heavy-duty Applications

Area of Interest 2: Improving Electricity Grid Resilience

- Topic 5: University Research Consortium on Grid Resilience

Estimated Number of Awards/ Anticipated Funding Amount:

Topic Area	Total Funding Level (\$000)	Anticipated Number of Awards	Federal Funding per Award (\$000)	Max. Project Duration (years)	Min Required Non-Federal Cost Share %
Topic 1: HydroGEN: Solar Fuels from Photoelectrochemical and Solar Thermochemical Water Splitting	\$12,500 ²⁴	7 to 9	\$750 - \$1,000	3	20%

Topic Area	Total Funding Level (\$000)	Anticipated Number of Awards	Federal Funding per Award (\$000)	Max. Project Duration (years)	Min Required Non-Federal Cost Share %
Topic 2: Development and Validation of Sensor Technology for Monitoring and Measuring Hydrogen Losses	\$8,000	6 to 8	\$1,000 – 1,500	3	20%

Additional Information: [DE-FOA-0002792](https://www.de.gov/foia/0002792)

Department of Energy, Water Power Technologies Office (NOI) Advancing Fish Passage and Protection Technologies

Summary: The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Water Power Technologies Office, a Funding Opportunity Announcement (FOA) that supports advancing innovative fish passage and protection technologies by supporting manufacturers, equipment vendors, and research organizations in gathering relevant information and data through testing to verify biological effects and performance. The development of technical solutions to enable and improve safe, timely, and effective fish passage and protection at hydropower dams can improve hydropower's environmental performance, supports infrastructure sustainability, and contributes to fish restoration goals.

It is anticipated that the FOA may include the following Topic Areas:

- **Topic Area 1 - Fish Passage Biological and Performance Evaluations Testing Campaign:** This topic area seeks to advance the Technology Readiness Level of innovative fish passage technologies by providing data on biological effects and fish passage performance. Technology innovations include: 1) novel solutions that are accompanied by analytical or experimental evidence that has established proof-of-concept and provides a rationale for next steps testing needs in terms of a critical path for research and development leading to market adoption; and 2) innovations to existing technologies that reduce negative impacts to fish, increase performance, show potential to dramatically reduce costs and/or present applications to novel use cases (e.g., different fish species evaluations, environmental conditions, or types of infrastructure).

EERE envisions awarding multiple financial assistance awards in the form of cooperative agreements. The estimated period of performance for each award will be approximately 18 to 24 months.

EERE plans to issue this FOA on or about September 2022.

Additional Information: [DE-FOA-0002834](#)

Department of Energy, Water Power Technologies Office (NOI) Water Power Projects: Innovative Technologies to Enable Low Impact Hydropower and Pumped Storage Hydropower Growth

Summary: The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Water Power Technologies Office, a Funding Opportunity Announcement (FOA) entitled "*Bipartisan Infrastructure Law: Section 41006. Water Power Projects:*

Innovative Technologies to Enable Low Impact Hydropower and Pumped Storage Hydropower Growth.” This FOA will further the sustainable development of hydropower and pumped storage hydropower (PSH) to support power system decarbonization.

It is anticipated that the FOA may include the following Topic Areas:

- **Topic Area 1 – Hydropower Retrofits for Non-Powered Dams**
This topic area will explore innovative solutions to retrofit Non-Powered Dams (NPDs) with environmentally sustainable hydropower at a reasonable cost through technology development and testing. The goal will be to address current challenges with NPDs including, but not limited to, high development costs, permitting challenges, grid connection, and utilizing the full range of flow and head fluctuations that occur for dams that were built for purposes other than power generation.
- **Topic Area 2 – Innovative Pumped Storage Hydropower Concepts**
This topic area will develop and test technologies that mitigate challenges to PSH deployment, including development costs; long development timelines; permitting challenges; construction risks; and environmental impacts. The FOA team will seek applications that accelerate the deployment of PSH through improved components, alternative PSH configurations, and/or construction processes that reduce cost and/or improve value.
- **Topic Area 3 – Hydropower Research and Development by Emerging Organizations**
This topic area seeks research and development (R&D) projects from institutions that have not engaged with WPTO through significant research projects and have limited familiarity with WPTO programs and research support mechanisms. WPTO recognizes that this lack of familiarity can be a barrier to participation in WPTO research activities and application to WPTO funding opportunities. This topic area is designed to encourage disadvantaged organizations to support hydropower development.

EERE envisions awarding multiple financial assistance awards in the form of cooperative agreements. The estimated period of performance for each award will vary between topic areas but will be approximately 1 to 3 years in duration. The non-federal cost share requirement for this FOA is anticipated to be 20% of total project costs.

EERE plans to issue these FOAs in or about September 2022.

Additional Information: [DE-FOA-0002731](https://www.eere.doe.gov/foia/DE-FOA-0002731)

Department of Energy, Water Power Technologies Office (NOI) Water Power Projects: Stakeholder Insight into Hydropower R&D Issues

Summary: The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Water Power Technologies Office, a Funding Opportunity Announcement (FOA) entitled “*Bipartisan Infrastructure Law: Section 41006. Water Power Projects: Stakeholder Insight into Hydropower R&D Issues.*” This FOA seeks to support the efforts of a diverse group of participants working together to discuss and address issues surrounding the improvement of hydropower systems and their impact on the environment.

It is anticipated that the FOA may include the following Topic Areas:

- Topic Area 1 - Stakeholder Insight into Hydropower R&D Issues
Potential applicants will deeply engage with a broad array of stakeholders to understand community-level issues affecting hydropower technologies and hydropower improvements. These efforts will enhance and inform the current and future needs of research and development for hydropower technologies and environmental improvements. Applicants are encouraged to directly engage and involve Tribal, environmental, and other nonprofit communities more closely with the hydropower community to determine common research and analysis objectives.

EERE envisions awarding a single financial assistance award in the form of a grant. The estimated period of performance for this award will be approximately 2 to 3 years in duration. The non-federal cost share requirement for this FOA is anticipated to be 20% of total project costs.

EERE plans to issue these FOAs in or about September 2022.

Additional Information: [DE-FOA-0002800](https://www.de.gov/foia/0002800)

Department of Energy, Water Power Technologies Office (NOI) Pumped Storage Hydropower Wind and Solar Integration and System Reliability Initiative

Summary: The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Water Power Technologies Office, a Funding Opportunity Announcement (FOA) entitled “*Bipartisan Infrastructure Law: Section 40334. Pumped Storage Hydropower Wind and Solar Integration and System Reliability Initiative.*” This FOA supports the development of PSH by providing critical long-duration energy storage, increased integration of variable renewable energy such as wind and solar, and power system decarbonization.

It is anticipated that the FOA may include the following Topic Areas:

- Topic Area 1 - PSH Development Studies

Based on BIL statutory language, this FOA and Topic Area will provide funding to undertake studies on project design, transmission, power market assessments, and permitting to support pumped storage hydropower project development, and to facilitate the long-duration storage of intermittent renewable electricity. Projects shall provide not less than 1,000MW of capacity, be able to provide energy and capacity in more than 1 organized electricity market, store electricity generated by intermittent renewable electricity projects located on Tribal land; and have received a preliminary permit from the Federal Energy Regulatory Commission.

EERE envisions awarding a single financial assistance award in the form of a cooperative agreement. The estimated period of performance for this award will be up to 5 years in duration. The non-federal cost share requirement for this FOA is anticipated to be 20% of total project costs.

EERE plans to issue these FOAs in or about September 2022.

Additional Information: [DE-FOA-0002802](https://www.eere.doe.gov/foia/DE-FOA-0002802)