



U.S. DEPARTMENT OF
ENERGY

Office of
ELECTRICITY

Energy Storage Grand Challenge (ESGC) Summit

Keynote Announcements

August 9, 2024

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Office of Electricity (OE) Announcements

- Critical Facility Energy Resilience (CiFER) Funding Opportunity Award (FOA)
- Aligning Manufacturability and Pre-production Design (AMPD) Notice of Intent (NOI)
- Achieving the Promise of Low-Cost Long-Duration Energy Storage Report
- Blue Sky Request for Information (RFI) Reiteration
- Announcements of Winners
 - Storage Accelerator Vouchers
 - Community and Innovator Acceleration Vouchers
 - New OE-30 LEEP fellow introduction
- Grid Storage Launchpad (GSL) Opening

Critical Facilities Energy Resilience (CiFER)

- Overview: FOA provides up to **\$15 million** for cost-shared demonstration projects to facilitate the deployment of innovative long-duration storage technologies to support resiliency at critical infrastructures.
- Timeline: Closing date for applications is **August 31, 2024**.
- Objectives:
 - Demonstrate the benefits of innovative long-duration energy storage technology being used in the field by large energy end-user and potential investor ecosystem
 - Benefit a host site/critical infrastructure that has a compelling need for a dependable supply of energy based on potential impact during low-frequency high-impact events or if the site were not able to maintain normal operations
 - Conduct quantitative and qualitative analysis on the value of resiliency provided by the long-duration energy storage system
- Potential Applicants/Partners:

Technology Providers	Critical Facility or Infrastructure Owner	Resiliency Analytics Partner
<ul style="list-style-type: none">• A private energy storage company• An institution of higher education• Other organizations that develop or deploy energy storage	<ul style="list-style-type: none">• A first responder or emergency response facility• Critical service sites such as healthcare, telecommunications, data centers, utilities, financial institutions and government facilities etc.	<ul style="list-style-type: none">• Academic or Research Organizations• Consultants• National Labs

Aligning Manufacturability and Pre-production Design (AMPD)

\$8 Million

≤ 4 projects

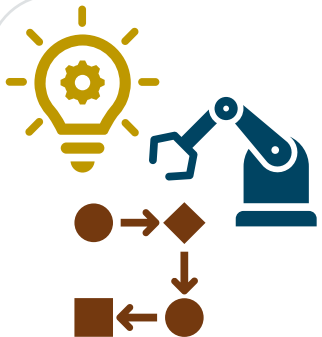
Fall 2024 (*planned*)

- Projects that propose pre-production design solutions that help improve manufacturability
- Energy storage technologies that discharge energy in the form of electricity that supports stationary, non-mobility applications (including, but not limited to, grid-scale or grid-connectable applications)
- Solutions for specific, clearly identified manufacturability challenges, including, but not limited to, the selection, modification, or development of the size, shape, or composition of a material, subcomponent, component, or system

Objectives



Outcomes



- Identify pre-production design challenges associated with energy storage technology manufacturability
- Discover potential R&D innovation solutions to address these challenges earlier in the design process

- Enhanced manufacturability metrics and/or indicators (technical or non-technical)
- Improved production of cost-effective, safe, and reliable short-, medium-, and long-duration storage technologies



Achieving the Promise of Low-Cost Long-Duration Energy Storage Report

- Report synthesizes the 2023 Long-Duration Storage Shot Technology Strategy Assessments
- Long-Duration Storage Shot (LDES)
 - Reduce the cost of grid-scale energy storage by 90%
 - 10+ hours of duration
 - In 10 years
- The report addresses 10 LDES technologies that span four storage technology families:
 - Electrochemical energy storage
 - Chemical energy storage
 - Mechanical energy storage
 - Thermal energy storage

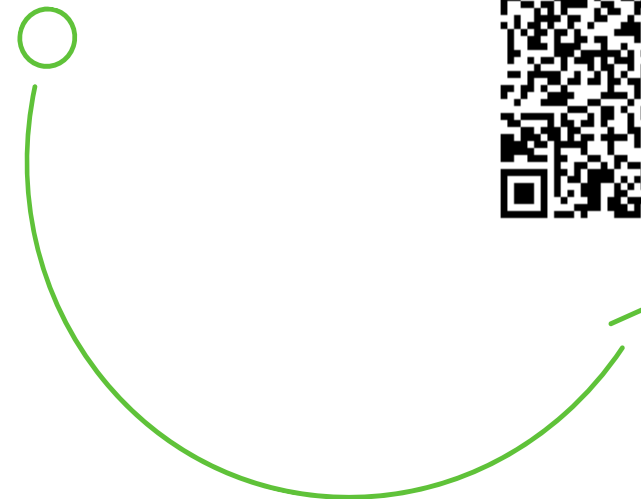
Blue Sky RFI

- RFI regarding the planned approach for the Blue Sky Training Program (BSTP) for grid scale Energy Storage Systems (ESS)
- Goal is to educate and train first responders, law enforcement agencies, local communities, utilities, authorities having jurisdictions, and others on how to respond to unanticipated ESS failures including those caused by cyber threats, physical threats, and other unanticipated operational failures
- OE seeks input from all stakeholders regarding existing expertise and resources, effective methods for collaboration, and key partners that will be needed to achieve desired objectives

Storage Acceleration Vouchers

- Does your company have an energy storage-related project or challenge that needs more advanced analytics or access to national laboratory capabilities? At the 2024 Energy Storage Grand Challenge Summit, explore tools and expertise from DOE's national laboratories and apply for a voucher to work with one on a solution.
- DOE anticipates offering up to 12 vouchers for approximately 40 hours of work—and time with lab experts—to American companies that are solving problems today for a better energy storage future tomorrow.
- **Applications for these vouchers are now closed; winners will be announced at 2:30 today.**

Learn about the National Lab tools!



Community and Innovator Acceleration Vouchers

The DOE Voucher Program builds bridges between U.S. entrepreneurs, businesses, technology developers or other relevant partners and third-party voucher providers to advance commercialization and demonstration at scale of innovative energy technologies.

Deadline - August 28, 2024 3:00 pm ET

Voucher Opportunity 7: Long Duration Energy Storage (LDES) Technology Acceleration (Recipients)

- Provides LDES technology companies, including developers, vendors and manufacturers, with services such as market assessment support, business plan formulation, technical modeling or analysis, testing, performance validation, and commercialization strategy support.
- The value of each voucher will depend on the services defined in the Providers' capability statements, with estimated values of support services per recipient ranging from \$50k to \$150k.

Deadline - August 28, 2024 3:00 pm ET

Voucher Opportunity 8: Long Duration Energy Storage (LDES) Community Development (Recipients)

- Provides communities with services such as siting/permitting support, storage project road mapping, regional modeling, energy use analysis, technical feasibility studies, technology solution decision-making, or community engagement.
- While there are no restrictions on eligible communities, supporting disadvantaged communities (DACs) is an important goal of this opportunity.
- The value of each voucher will depend on the services defined in the Providers' capability statements, with estimated values of support services per recipient ranging from \$50k to \$150k.

Lab-Embedded Entrepreneurship Program (LEEP) Fellow

- LEEP recruits members from the clean and renewable energy sector for a two-year funded fellowship.
- Fellowship provides fellows who have early-stage clean energy startups and/or emerging technologies with the support needed to develop and transition their ideas into the market.
- These entrepreneurs are embedded for a period of two years at one of four national labs, where they are mentored by a lab scientist.
- LEEP also provides support at the local, regional, and national levels including entrepreneurship training and a networking ecosystem to eliminate the hurdles traditionally faced by early-stage cleantech startups.
- OE's Energy Storage Division is sponsoring a new LEEP fellow who will be at NREL working on validation of a transformative sodium-ion cell platform

Grid Storage Launchpad (GSL) Opening

- The GSL will officially begin operations on **August 13, 2024**
- Located at the **Pacific Northwest National Laboratory (PNNL) campus in Richland, Washington.**
- The GSL is a **national grid energy storage R&D facility**, which will focus on independent testing, advancing tech development, fostering collaboration, and training the next-gen workforce.
- It will accelerate the development and deployment of next generation grid storage technologies through **systematic and independent validation.**
- It will support **necessary collaboration with industry partners** to achieve greater integration of renewable energy.
- Strategic funding from the State of Washington, Battelle and PNNL provide further support for GSL equipment and research and development activities that complement the DOE OE investment.
- The facility will be dedicated to **Dr. Imre Gyuk, Director of Energy Storage Research**, whose work has served as a foundation for all the work we do today. The dedication will be on **August 13** at the PNNL campus in Richland.



Grid Storage Launchpad in Richland, WA; photo courtesy of PNNL

Thank you!

