

New Federal Funding for Energy Storage: What's Available and How To Qualify

August 9, 2022



U.S. DEPARTMENT OF
ENERGY



Sandia
National
Laboratories



CleanEnergy
States Alliance

Links Provided by Webinar Speakers

- **Mine Land RFI:**

<https://www.energy.gov/articles/biden-administration-launches-500-million-program-transform-mines-new-clean-energy-hubs>

- **EESEE RFI:**

<https://www.energy.gov/oe/articles/long-duration-energy-storage-everyone-everywhere-initiative-notice-intent-and-request>

- **RFI for 40209:**

<https://www.energy.gov/articles/biden-harris-administration-advances-750-million-program-strengthen-clean-energy>

- **The full list of OCED provisions:**

<https://www.energy.gov/office-clean-energy-demonstrations>

- **ESGC email list is on this page:**

<https://www.energy.gov/energy-storage-grand-challenge/energy-storage-grand-challenge>

- **For all OCED provisions, meeting requests, and to be added to the mailing list:**

dl-oced-engagement@hq.doe.gov

Webinar Logistics



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Use the orange arrow to open and close your control panel

Submit questions and comments via the Questions panel

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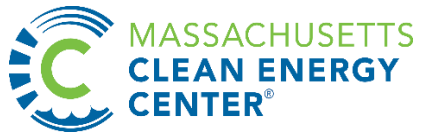
CleanEnergy States Alliance



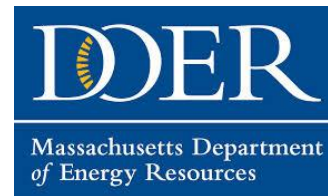
GOVERNOR'S
Energy Office



Maryland
Energy
Administration



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

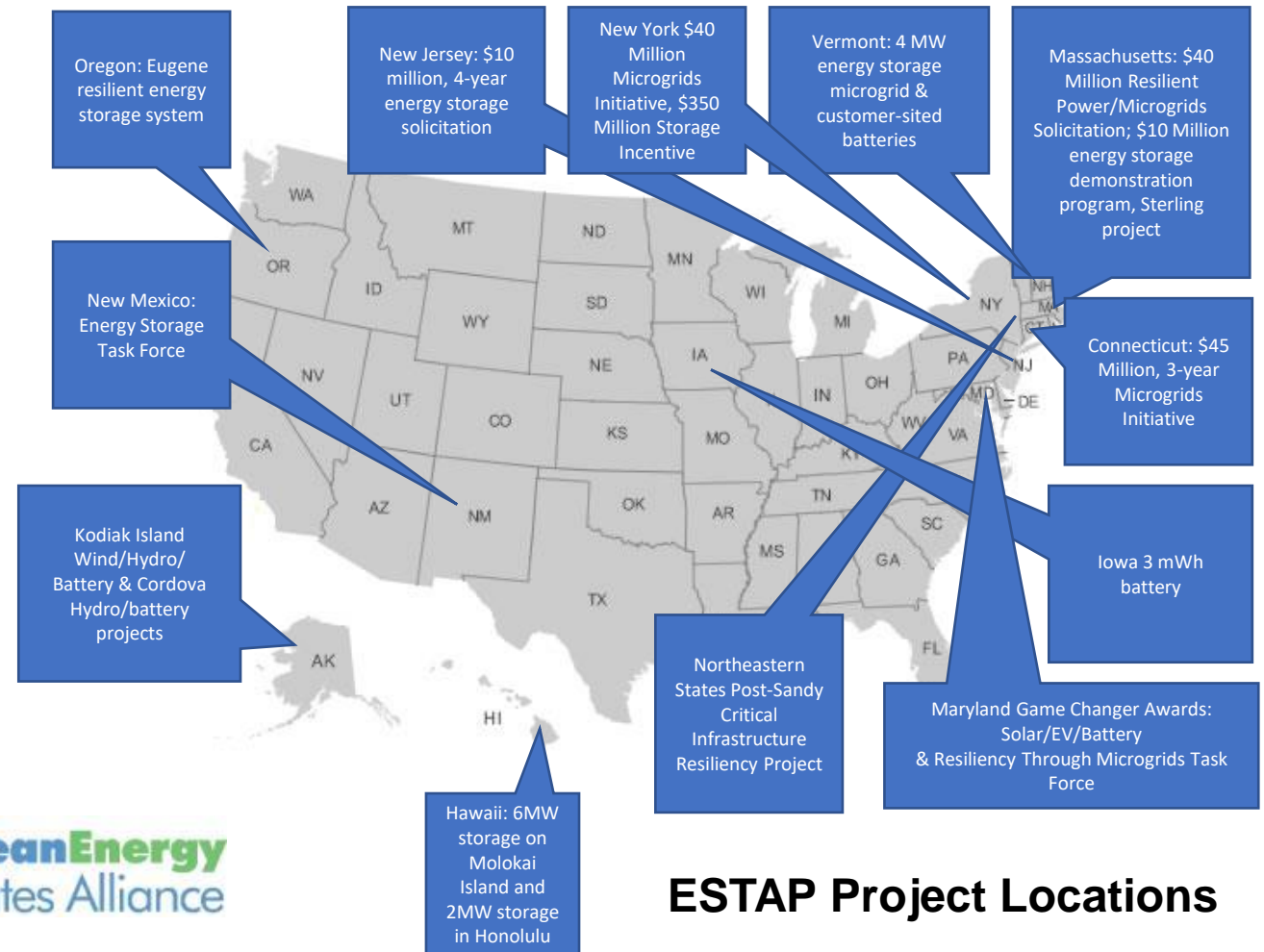


DOE-OE Energy Storage Technology Advancement Partnership

The **Energy Storage Technology Advancement Partnership (ESTAP)** is a US DOE-OE funded federal/state partnership project conducted under contract with Sandia National Laboratories.

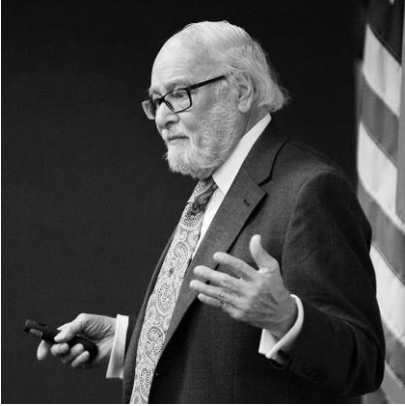
ESTAP Key Activities:

1. Facilitate public/private partnerships to support joint federal/state energy storage demonstration project deployment
2. Disseminate information to stakeholders
 - ESTAP listserv >5,000 members
 - Webinars, conferences, information updates, surveys.
3. Support state energy storage efforts with technical, policy and program assistance



ESTAP Project Locations

Thank You!



Dr. Imre Gyuk

Director, Energy Storage Research,
U.S. Department of Energy



Dan Borneo

Engineering Project/Program Lead,
Sandia National Laboratories



Webinar Speakers



Dr. Imre Gyuk

Director of Energy
Storage Research,
DOE Office of
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Katrina Pielli

Director, Engagement
Office, DOE Office of
Clean Energy
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Ben Shrager

General Engineer,
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Development



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President, CleanTech
Strategies LLC



Dan Borneo

Engineering
Project/Program Lead,
Sandia National
Laboratories



Todd Olinsky-Paul

Senior Project
Director, Clean Energy
States Alliance
(moderator)





U.S. DEPARTMENT OF
ENERGY

Office of Clean Energy Demonstrations

Katrina Pielli, Engagement Office Director

August 9, 2022



Background

- The Biden Administration's bold climate goals include carbon-free electricity in the U.S. by 2035 and a net zero economy by 2050
- Achieving net zero emissions by 2050 in the U.S. will require trillions of dollars of investment in emerging clean energy and decarbonization technologies
- These technologies face significant barriers to scale, and the private sector is seeking financial support to reduce risk and deploy these technologies
- In December 2021, the U.S. Department of Energy announced the establishment of the Office of Clean Energy Demonstrations (OCED) to deliver \$21.5 billion provided by the Infrastructure Law to support large-scale clean energy demonstration projects
- OCED will accelerate clean energy technologies from the lab to market and fill a critical innovation gap on the path to achieving our nation's climate goals while mitigating risks that allow private sector investors and developers to act

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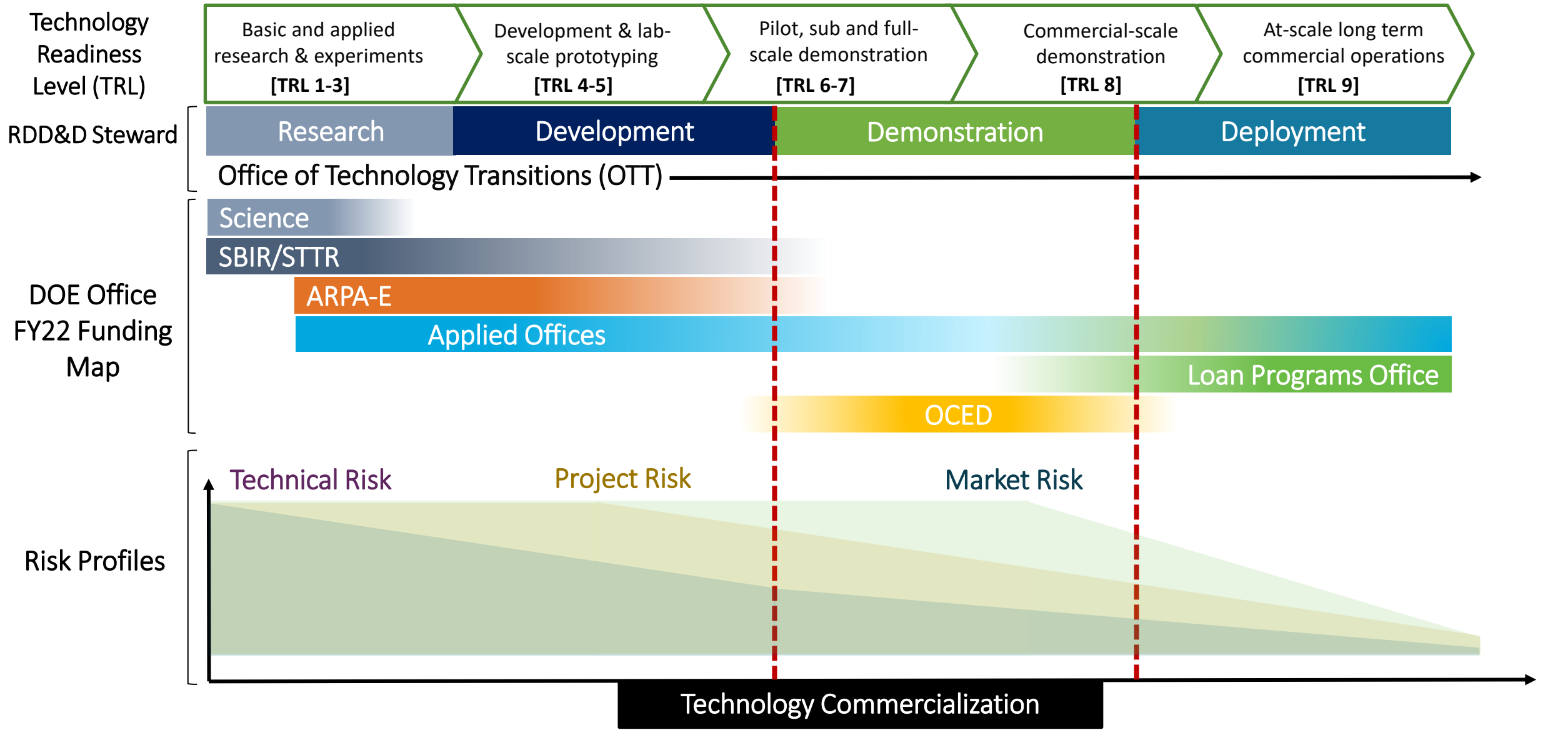
“Deliver clean energy technology demonstration projects at scale in partnership with the private sector to accelerate deployment, market adoption, and the equitable transition to a decarbonized energy system.”

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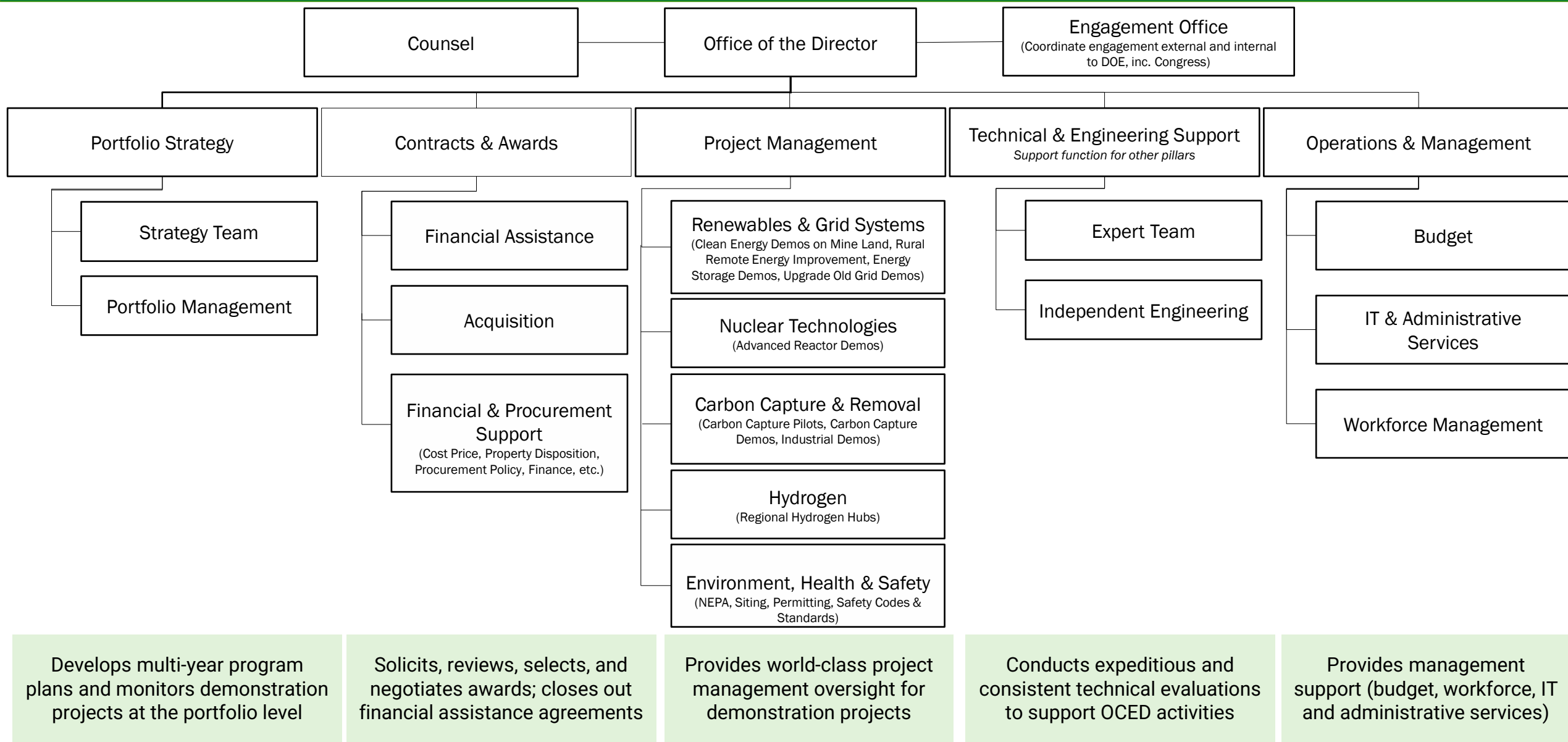
OCED Mandate

1. **Serve as primary office in DOE for delivering full scale clean energy demonstration projects** and for project management oversight excellence
2. **Help enable 100% clean electricity by 2035 and net zero emissions by 2050** through an equitable energy transition
3. **Unlock trillion-dollar scale clean energy investment** from the private sector and other sources of capital
4. **Maintain risk-based, balanced, and defensible** portfolio of investments
5. **Leverage private sector partnerships and broader ecosystem engagement** to inform OCED and DOE technology commercialization efforts

OCED Role Across Research, Development, Demonstration & Deployment (RDD&D) Continuum

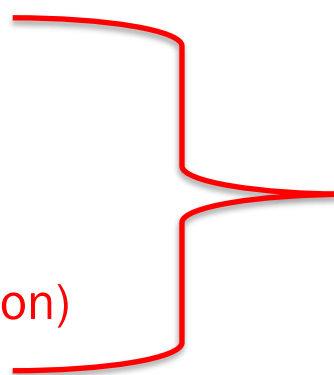


OCED Programs Advance Demonstration Goals



OCED Scope

- Regional Clean Hydrogen Hubs (\$8 billion)
- Upgrading Grids Demonstrations (\$5 billion)
- Advanced Reactor Demonstrations (\$2.5 billion)
- Carbon Capture Demonstrations (\$2.5 billion)
- Carbon Capture Large-Scale Pilot Projects (\$937 million)
- Industrial Emissions Demonstrations (\$500 million)
- Energy Improvement in Rural and Remote Areas (\$1 billion)
- Clean Energy Demonstrations on Mine Land (\$500 million)
- Energy Storage Demonstration and Pilot Grants (\$355 million)
- Long Duration Demonstration Initiative and Joint Program (\$150 million)



Focuses
for today

Energy Improvement in Rural and Remote Areas (\$1B)

Improving the resilience, safety, reliability, and availability of energy in rural or remote areas and increasing environmental protection from the adverse impacts of energy use, in coordination with the Department of Interior

- Rural and remote is defined as cities, towns, or unincorporated areas with less than 10,000 inhabitants
- Projects for the purposes of:
 - (A) overall cost-effectiveness of energy generation, transmission, or distribution systems;
 - (B) siting or upgrading transmission and distribution lines;
 - (C) reducing greenhouse gas emissions from energy generation by rural or remote areas;
 - (D) providing or modernizing electric generation facilities;
 - (E) developing microgrids; and
 - (F) increasing energy efficiency.

Current Status

- Conducting stakeholder outreach
- Planning workshops to bring together fullest possible range of stakeholders to discuss best ways to shape this program for community benefit and replicability
- Planning a funding announcement in 2022



Clean Energy Demonstrations on Mine Land (\$500M)

Carrying out up to five clean energy projects on current and former mine land to show their technical and economic feasibility

- Eligible technologies:
 - Solar (at least two projects must be solar)
 - Micro-grids
 - Geothermal
 - Direct air capture
 - Fossil generation with CCUS
 - Energy storage
 - Advanced nuclear
- Focus on economic development and environmental justice

Current Status

- Issued an RFI in June 2022 that closes on August 15, 2022
- Conducting outreach
- Planning workshops to bring together fullest possible range of stakeholders to discuss best ways to shape this program for community benefit and replicability



Thank You!

For additional updates and information, visit:
www.energy.gov/office-clean-energy-demonstrations

Email:
Katrina.Pielli@hq.doe.gov or my team at:
dl-oced-engagement@hq.doe.gov

Long Duration Energy Storage for Everyone, Everywhere (ESEE)



LONG DURATION STORAGE SHOT TARGET



Reduce storage costs by
90% from a 2020
Li-ion baseline...



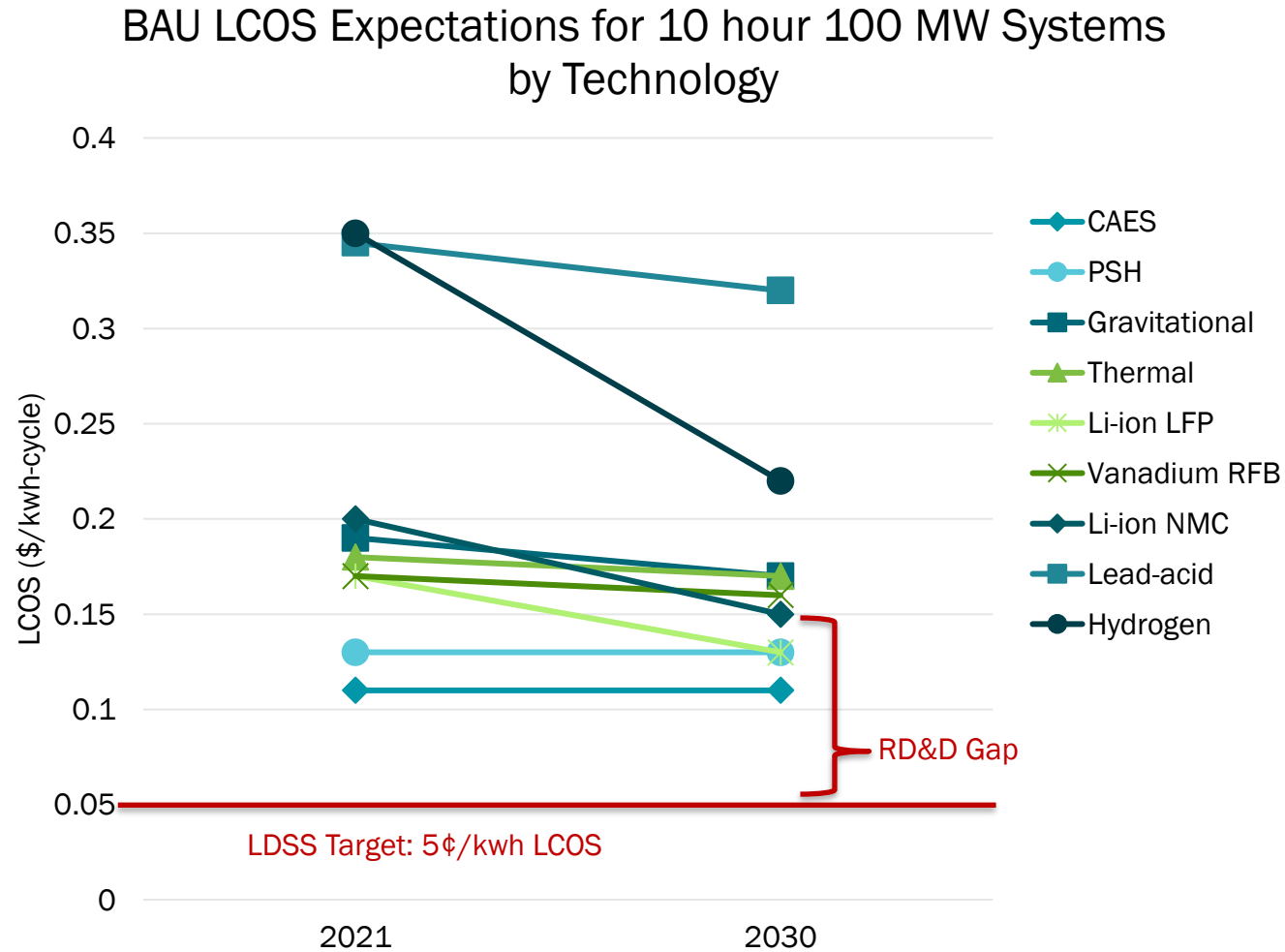
...in storage systems that
deliver **10+**
hours of duration



...in **1** decade

Affordable grid storage for clean power – any time, anywhere

RD&D Required for Cost-Effective Decarbonization



- 5¢/kwh LCOS enables dispatchable clean energy while minimizing rate increases
- Business as Usual LCOS Expectations will not achieve this goal
- New demonstrations at scale are a major step towards cost reductions and performance improvements

Source:
Forthcoming DOE/ESGC Cost and Performance Report

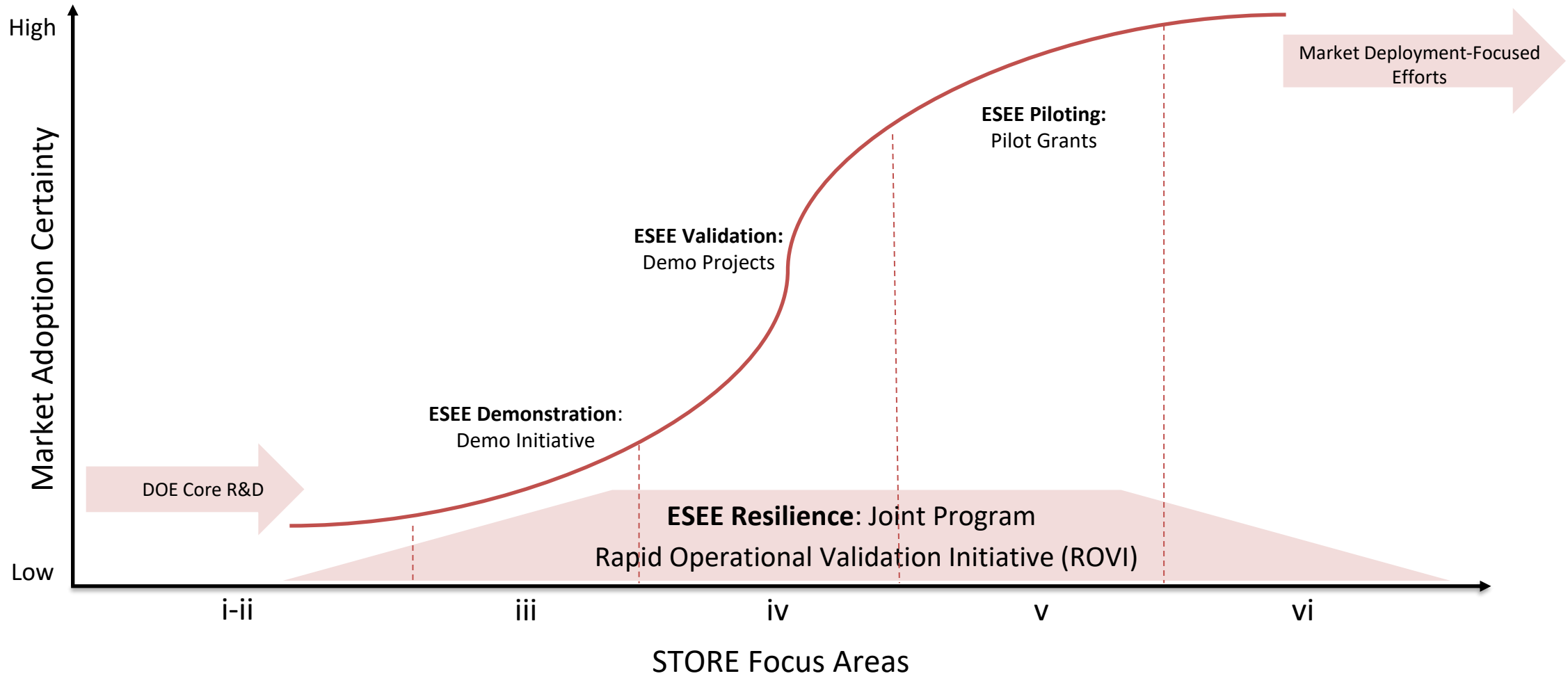
Long Duration Energy Storage for Everyone, Everywhere (ESEE)

- Key ESEE Initiative goals:
 - **Demonstrate** new, innovative storage technologies that may address future long duration needs.
 - **Validate** first-of-a-kind long duration systems at utility scale and validate pathways to Storage Shot 90% cost reduction targets.
 - **Pilot** storage to help new storage end users overcome institutional and informational barriers.
 - Increase **resilience** of critical government facilities.
- Activities beyond ESEE:
 - Scaling up domestic manufacturing
 - Incentives to accelerate deployment
 - Hydrogen and Generator Flexibility technologies

Four Demonstration Programs in ESEE

- \$355 million
- **ESEE Validation:** “Demo Projects” for first-of-a-kind LDES utility scale demonstrations.
 - **ESEE Piloting:** “Pilot Grants” to lower the barriers to storage deployments.
- \$150 million
- **ESEE Demonstration:** “Demo Initiative” for innovative early-stage long duration technologies.
 - **ESEE Resilience:** “Joint Program” for storage demonstrations on DOE/ DOD facilities.

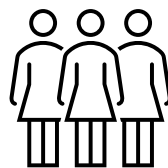
Validate Storage at Increasing Scales



ESEE Demonstration (Demo Initiative)

Who we're funding:

- Companies innovating energy storage
- Behind-the-meter storage customers (campuses, facilities)



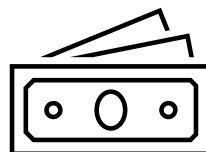
What we're funding:

- Field or behind-the-meter demonstrations (< 100 kW) of small, lab-scale technologies proven at smaller scales.



How we're funding:

- Cost-share grants
- Prizes
- Mechanisms informed by RFI

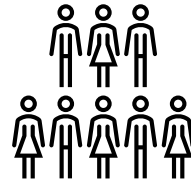


End Goal: Prepare a cohort of promising technologies for eventual utility-scale demonstration and gather sufficient data to accelerate the feasibility of utility-scale demos.

ESEE Validation (Demo Projects)

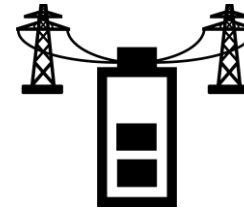
Who we're funding:

- Vendors of innovative energy storage
- Engineering, Procurement, Construction (EPC)
- Offtakers



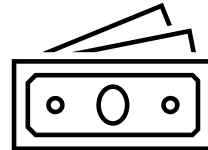
What we're funding:

- At least 3 first-of-a-kind utility-scale demonstrations by September 2023
- Three required projects:
 - Weekly-seasonal durations
 - EV battery second life
 - Long cycle life Lithium battery



How we're funding:

- Grants or Cooperative agreements
- Offtake agreements
- Anchor Tenant
- Technology Investment Agreement (TIA)/ Partnership Intermediary Agreement (PIA)
- Mechanisms informed by RFI

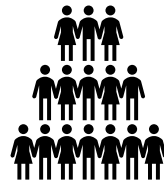


End Goal: Deploy innovative first-of-a-kind technologies at utility scale which might not otherwise proceed given potential technology risk.

ESEE Piloting (Pilot Grants)

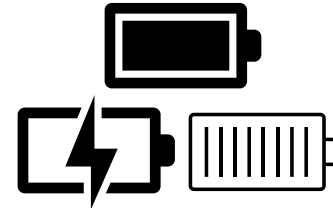
Who we're funding:

- States, Tribes, Tribal Organizations
- Institution of higher education
- Electric utility
- Private energy storage company



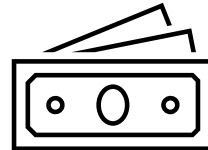
What we're funding:

- Opportunities for communities to deploy storage for the first time
 - Emphasis on overcoming regulatory and institutional barriers of deployment.



How we're funding:

Creative mechanisms informed by RFI and prize competition:



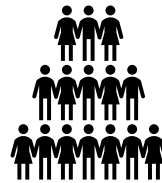
- “Competitive grant program”
- TIA/ PIA
- Credit Enhancements
- Institutional Support
- Energy Storage Subscription
- Warranty Backstop
- And more!

End Goal: Build enduring capabilities (institutional, analytical, financial) for targeted communities to invest in storage resources that provide local benefits (including resilience, decarbonization, and financial).

ESEE Resilience (Joint Program)

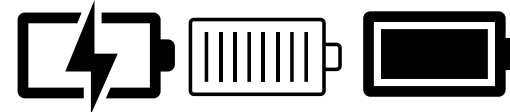
Who we're funding:

- DOE National Labs
- DoD Sites/Military Installations
- Other subrecipient partners needed to effectively implement and demonstrate LDES



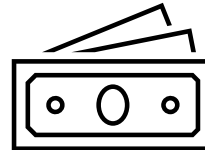
What we're funding:

- Demonstrations of innovative LDES that support resilience at DOE and DoD facilities
- Testing and validation that will accelerate commercialization of new technologies
- 100-500 kW+ systems that are capable of 10-24+ hours of storage leveraging National Lab/DoD infrastructure



How we're funding:

- Lab Call for DOE National Labs
- Mechanism TBD for DoD/Military sites

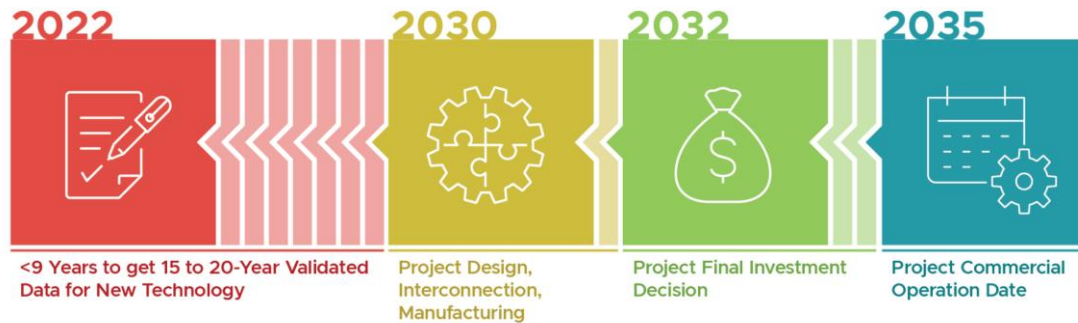


End Goal: Support DoD and DOE energy resiliency goals using LDES and effectively disseminate information from these projects to encourage industry adoption.

Rapid Operational Validation Initiative: Need, Goals, and Objectives

Solving a Commercialization Gap:

To impact 2035 Clean Energy Goals, newly developed storage technologies will need to be validated at accelerated pace

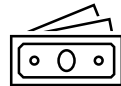


Fulfilling Congressional Requirements:

ESEE Validation and Piloting require “a report describing the performance of those programs” once every 3 years

ESEE Resilience must “help new, innovative long-duration energy storage technologies become commercially viable”

What we’re funding:

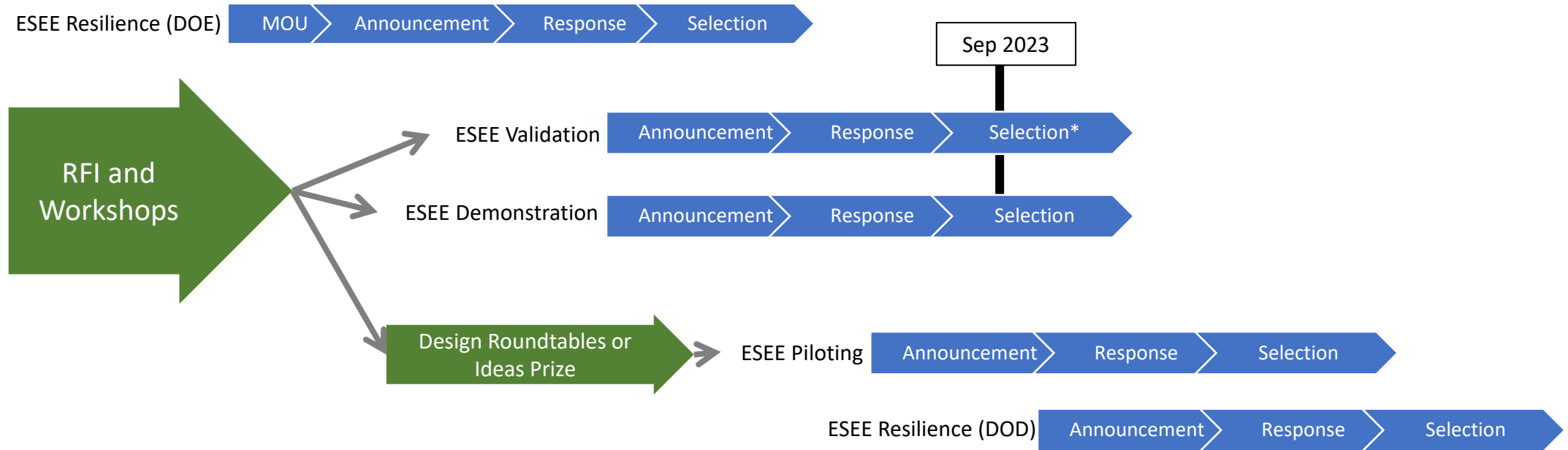


- Framework to collect field deployment data from all ESEE projects
- Create opportunities to develop performance prediction tools

End Goal:

Bankable storage technologies
15- to 20-year financial grade performance projections
with 1 year of combined testing and validation

ESEE Timeline and Sequencing

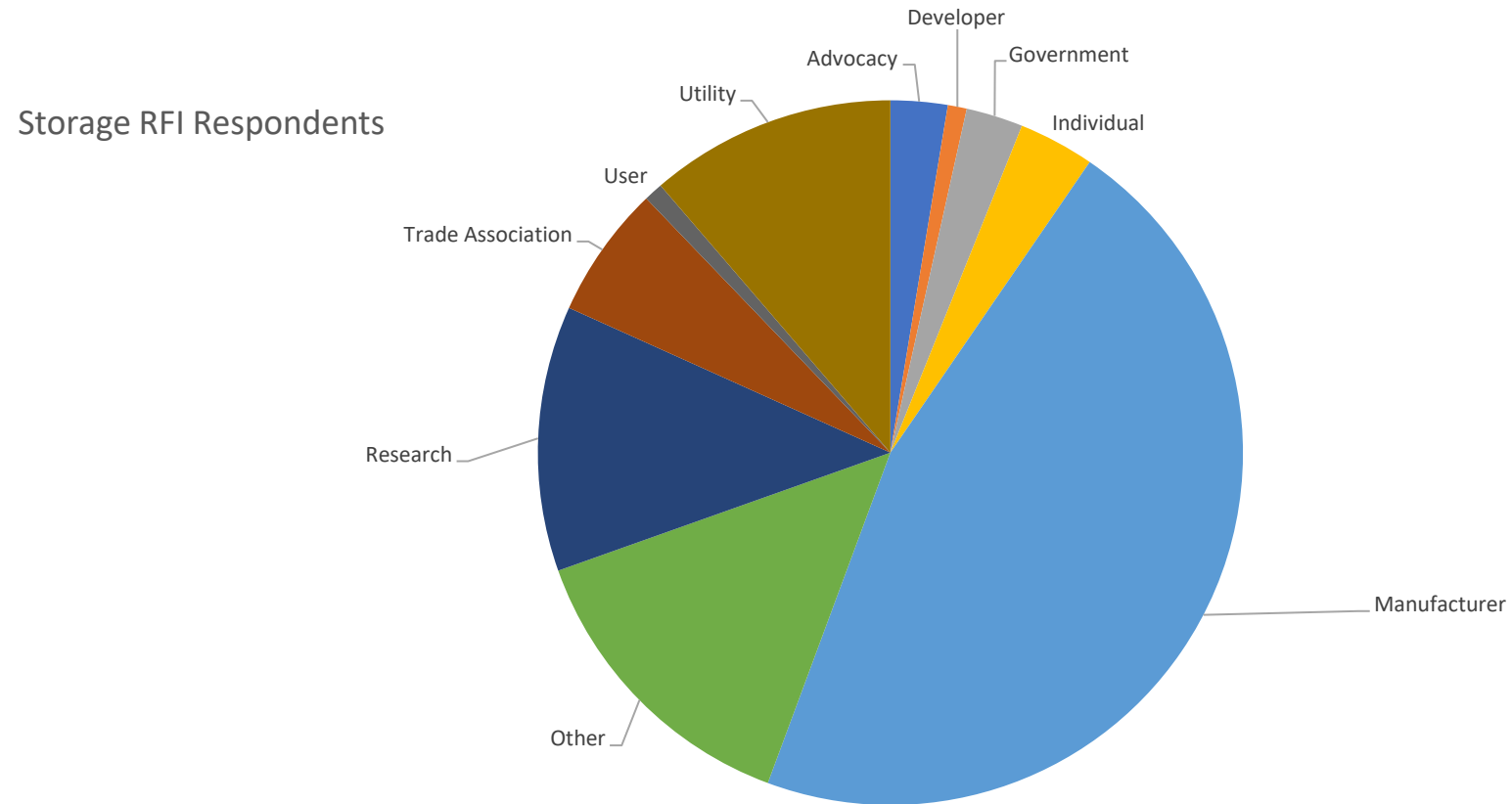


*42 USC § 17232(c)(2)(A) deadline

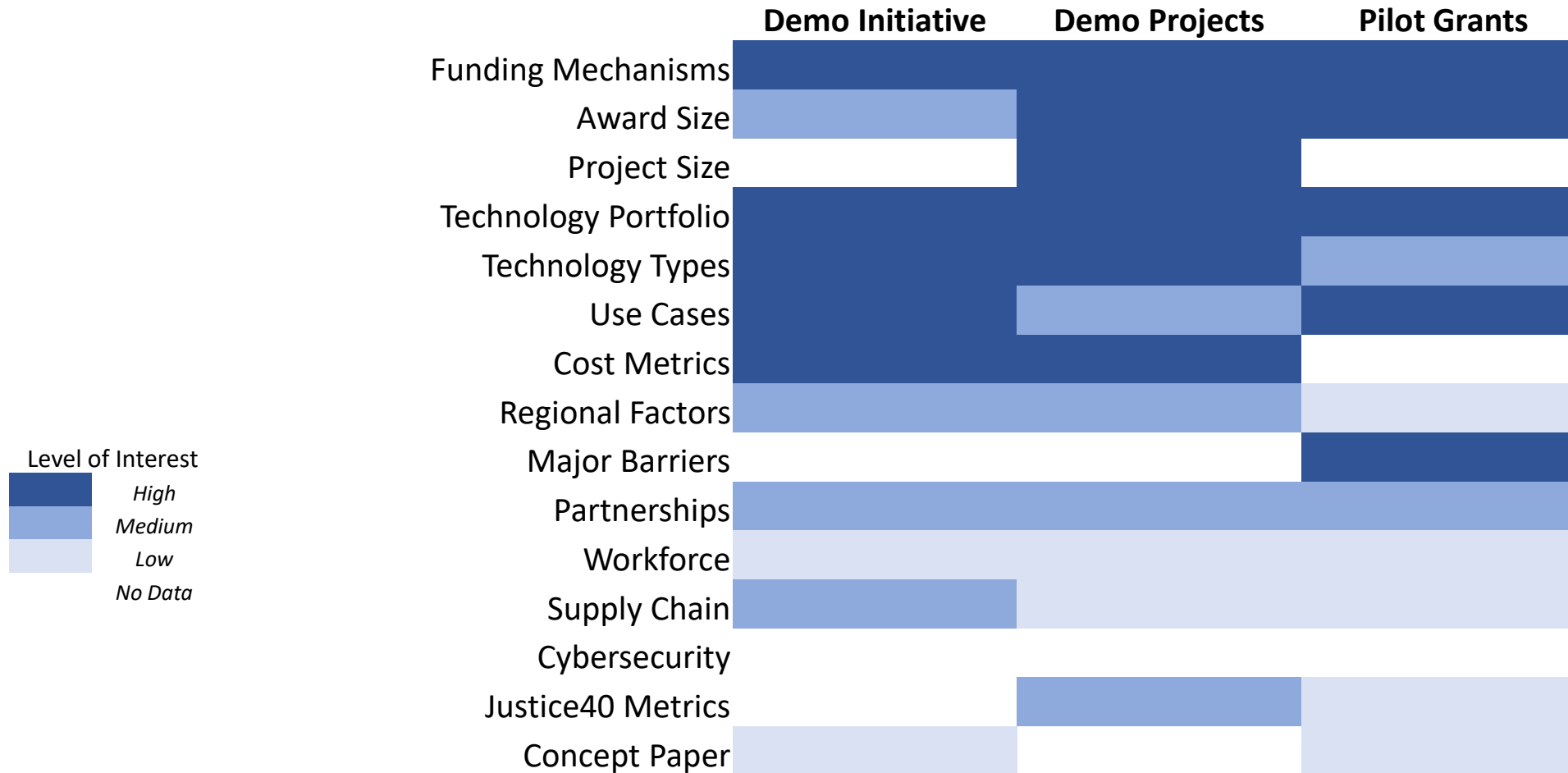
Outreach

- Request for Information released May 12th for feedback on:
 - Demo Initiative (“ESEE Demonstration”)
 - Demo Projects (“ESEE Validation”)
 - Pilot Grants (“ESEE Piloting”)
- Extensive questions on program-specific considerations and crosscutting issues (e.g., success metrics, climate impact, supply chain, incentives, other Infrastructure bill programs, program exclusions)
- RFI includes section on workforce development and equity, environmental, and energy justice (EEEJ)
- Listening Sessions held July - August

Preliminary RFI Responses: Overview



Preliminary RFI Responses: Areas of Interest



Preliminary RFI Responses: Areas of Interest

Rapid Operational Validation Initiative

Data and Reporting

Enabling Financing

Justice40

Performance Reporting

Crosscutting

STORE Scale Clarity

Supporting Structures

Supporting Activities

Decarbonization Goals

Climate Metrics

Environmental Reviews

Cost Share

Leveraging Programs

Technical Assistance

Data Collection

Hydrogen Exclusion

Flexibility Exclusion

Property Barriers

Employment Priorities

EEEJ Priorities

Level of Interest



Find updates on all opportunities at energy.gov/bil

BIL PROVISION NAME	TYPE OF ANNOUNCEMENT	STATUS	ANNOUNCEMENT DATE	RESPONSE DUE DATE
Energy Storage Demonstration and Pilot Grants; and Long-Duration Energy Storage Demonstration Initiative and Joint Program	Request for Information	Open	5/12/2022	6/16/2022
Transmission Facilitation Program	Request for Information and Notice of Intent	Open	5/10/2022	TBD: 30 Days after publication date in the Federal Register
Battery Material Processing Grants; and Battery Manufacturing and Recycling Grants	Funding Opportunity Announcement	Open	5/2/2022	Letter of Intent Deadline: 5/27/2022 and Full Application Submission Deadline 7/1/2022
Electric Drive Vehicle Battery Recycling and Second-Life Applications Program	Funding Opportunity Announcement	Open	5/2/2022	Concept Paper Submission Deadline: 5/31/2022 and Full Application Submission Deadline 7/19/2022
Carbon Storage Validation and Testing	Notice of Intent	N/A	4/29/2022	N/A
Preventing Outages and Enhancing the Resilience of the Electric Grid / Hazard Hardening	Request for Information	Open	4/27/2022	5/27/2022
	Notice of Availability and			

New Federal Funding for Energy Storage: What's Available and How to Qualify

Russ Weed
CleanTech Strategies 

ENERGY STORAGE TECHNOLOGY ADVANCEMENT PARTNERSHIP (ESTAP)
Funded by US DOE OE, managed by SNL and administered by CESA

August 9, 2022

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CleanTech Strategies Team



**Russ
Weed,
principal**

Battery and other storage technology expert with 11 years in energy storage industry
Founding management of flow battery company in 2012
Established consulting firm CleanTech Strategies LLC in 2018
J.D.; executive at start-ups, mid-market companies, General Electric



**Bob
Kirchmeier,
consultant**

Electrical engineer with over 40 years experience in power industry
Program manager of Washington State Clean Energy Fund Grid Modernization program since 2013
Joined Washington State University Energy Program in 2021, contracting with CleanTech Strategies
P.E.; upper management at utilities



**Chris
Murray,
consultant**

Washington, DC veteran with almost 20 years experience in "the Beltway"
Served a U.S. Senator, the White House, Federal Energy Regulatory Commission, US Navy
Established sole proprietorship Poterre in 2019, contracting with CleanTech Strategies
J.D.; manager at Washington, D.C. utility



Infrastructure Investment and Jobs Act (IIJA) of 2021

IIJA Clean Energy Programs	IIJA Funding
Resilience – Utilities section 40101	\$5B
Resilience – States & Tribes section 40103(b)	\$5B
Resilience – Remote Areas section 40103(c)	\$1B
Grid Modernization section 40107	\$3B
Advanced Manufacturing section 40209	\$750MM
Clean Energy Projects on Mine Lands section 40342	\$500MM
Storage Demonstrations section 41001(a)	\$355MM
Long-Duration Storage Demonstrations section 41001(b)	\$150MM
TOTAL	\$15.755B



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Infrastructure Investment and Jobs Act (IIJA) of 2021

1 of 1039 (PDF)
135 STAT. 429-1467

135 STAT. 429

Public Law 117–58
117th Congress

An Act

To authorize funds for Federal-aid highways, highway safety programs, and transit programs, and for other purposes.

Nov. 15, 2021
[H.R. 3684]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE — This Act may be cited as the “Infrastructure Investment and Jobs Act”.

Infrastructure
Investment and
Jobs Act.

23 USC 101 note.



IIJA Includes Appropriations of Energy Act of 2020 Budget Provisions

699 of 1039 (PDF)
135 STAT. 1127

TITLE X—AUTHORIZATION OF APPROPRIATIONS FOR ENERGY ACT OF 2020

Time periods.

SEC. 41001. ENERGY STORAGE DEMONSTRATION PROJECTS.

(a) ENERGY STORAGE DEMONSTRATION PROJECTS; PILOT GRANT PROGRAM.—There is authorized to be appropriated to the Secretary to carry out activities under section 3201(c) of the Energy Act of 2020 (42 U.S.C. 17232(c)) \$355,000,000 for the period of fiscal years 2022 through 2025.

(b) LONG-DURATION DEMONSTRATION INITIATIVE AND JOINT PROGRAM.—There is authorized to be appropriated to the Secretary to carry out activities under section 3201(d) of the Energy Act of 2020 (42 U.S.C. 17232(d)) \$150,000,000 for the period of fiscal years 2022 through 2025.



US Public Supports Infrastructure, but Awareness of IJA Is Not Developed Yet

ONLINE INFRASTRUCTURE POLL

June 2-9, 2022

N=2,000 2022 Likely Voters (N=500 in each Big Cities, Big-City Suburbs, Smaller Metros, and Rural)

		Total N=2000	Big City N=500	Big-City Suburbs N=500	Smaller Metro N=500	Rural N=500
Q13. Do you support or oppose this infrastructure bill?	Support - Strongly	35%	42%	38%	33%	26%
	Support - Somewhat	31%	33%	29%	32%	30%
	Total Support	66%	76%	67%	65%	56%
	Oppose - Somewhat	9%	6%	6%	10%	15%
	Oppose - Strongly	9%	4%	11%	8%	12%
	Total Oppose	18%	10%	18%	18%	27%
	Don't Know	16%	14%	15%	17%	17%
Q14. From what you know, what is the current status of this infrastructure bill?	It has been passed by Congress and signed into law by President Biden	24%	29%	24%	24%	18%
	It is still being worked on in Congress but isn't yet law	30%	30%	29%	29%	34%
	It is not being worked on in Congress and will not be passed	9%	8%	11%	10%	8%
	Don't Know	37%	34%	36%	38%	40%

Source: Third Way, July 22, 2022, [BIF-Survey-Toplines.pdf \(imgix.net\)](#)



IIJA Sec. 41001(b) – *Energy Storage Demonstration Projects; Pilot Grant Program*

- **\$355M of grants**, for Fiscal Years (FY) 2022 through 2025, until expended
- Activities under Energy Act of 2020, sec. 3201(c) [42 U.S.C. 17232(c)]
- Administered by DOE Office of Clean Energy Demonstrations (OCED), with support of Office of Electricity (OE) and Energy Efficiency & Renewable Energy (EERE)
- RFI released: May 12, 2022; DOE webinar: June 7, 2022; RFI responses due: June 16, 2022; DOE listening session: July 20, 2022
- “estimated application opening date: Q3 2022”

[Energy Storage Demonstration and Pilot Grant Program | Department of Energy](#)



IIJA Sec. 41001(c) – *Long-Duration Demonstration Initiative and Joint Program*

- **\$150M of grants**, for Fiscal Years (FY) 2022 through 2025, until expended
- Activities under Energy Act of 2020, sec. 3201(c) [42 U.S.C. 17232(c)]
- Administered by DOE Office of Clean Energy Demonstrations (OCED), with support of Office of Electricity (OE) and Energy Efficiency & Renewable Energy (EERE)
- RFI released: May 12, 2022; DOE webinar: June 7, 2022; RFI responses due: June 16, 2022; DOE listening session: July 20, 2022
- “estimated application opening date: Q3 2022”

[Long-Duration Energy Storage Demonstration Initiative and Joint Program | Department of Energy](#)



IIJA Sec. 40101 – *Preventing Outages and Enhancing the Resilience of the Electric Grid*

- **\$5B total of grants**, \$1B for each of FY 2022, 2023, 2024, 2025, and 2026,
- until expended
- Eligible entities: Electric Grid Operators, Electricity Storage Operators,
- Electricity Generators, Transmission Owners and Operators, Distribution Providers, Fuel Suppliers, other relevant entity determined by DOE
- (c): grants to eligible entities
- (d): formula-based grants to States and Tribes, to award to eligible entities
- (f): 50% to eligible entities, 50% to States and Tribes
- Administered by DOE Grid Deployment Office
- “estimated application opening date: Q3 2022”

<https://www.energy.gov/bil/preventing-outages-and-enhancing-resilience-electric-grid-grants>



IIJA Sec. 40103(b) – *Electric Grid Reliability and Resilience Research, Development, and Demonstration*

- “Energy Infrastructure Federal Financial Assistance Program”
- **\$5B total of “federal financial assistance”** [CFR, Title 2, sec. 200.1], \$1B for each of FY 2022, 2023, 2024, 2025, and 2026, until expended
- Eligible entities: States, Tribes, Local Government Units, Public Utility Commissions
- Administered by DOE Grid Deployment Office
- “estimated application opening date: Q3 2022”

<https://www.energy.gov/bil/program-upgrading-our-electric-grid-and-ensuring-reliability-and-resiliency>



IIJA Sec. 40103(c) – *Electric Grid Reliability and Resilience Research, Development, and Demonstration*

- “Energy Improvement in Rural or Remote Areas”
- **\$1B total of “federal financial assistance”** [CFR, Title 2, sec. 200.1], for FY 2022 through 2026
- Required Activities: DOE to improve resilience, safety, reliability, and availability of energy, and environmental protection from adverse impacts of energy generation, in "rural or remote areas" - city, town or unincorporated area with no more than 10,000 people
- Administered by DOE Grid Deployment Office
- “estimated application opening date: Q3 2022”

<https://www.energy.gov/bil/energy-improvement-rural-or-remote-areas>



IIJA Sec. 40107 – *Deployment of Technologies to Enhance Grid Flexibility*

- **\$3B total of grants**, \$600M for each of FY 2022, 2023, 2024, 2025, and 2026, until expended
- Funding and expansion of eligible activities under the Smart Grid Investment Matching Grant Program established under the Energy Independence and Security Act of 2007, sec. 1306, e.g. <https://www.pnnl.gov/projects/transactive-systems-program/pacific-northwest-smart-grid-demonstration>
- Administered by DOE Office of Electricity
- “expected application opening date: end of 2022”

[Deployment of Technologies to Enhance Grid Flexibility | Department of Energy](#)



IIJA Sec. 40209 – *Advanced Energy Manufacturing and Recycling Grant Program*

- **\$750M total of grants**, available until expended
- Eligible entities: manufacturing firms with annual sales of <\$100M, <500 employees at firm's plant site, and annual energy bills >\$100K but <\$2.5M
- Build new or retrofit existing manufacturing and industrial facilities to produce or recycle advanced energy products in communities where coal mines or coal power plants have closed
- Qualified projects: in or immediately adjacent to a census tract (ave.: 4,000 people; see [Census Tracts](#)) where a coal mine closed in 2000 or later, or a coal-fired electricity generating unit was retired in 2010 or later
- Administered by DOE Office of Manufacturing and Energy Supply Chains
- RFI issued: August 3, 2022; RFI responses due: September 16, 2022

[Advanced Energy Manufacturing and Recycling Grants | Department of Energy](#)



IIJA Sec. 40342 – *Clean Energy Demonstration Program on Current and Former Mine Land*

- **\$500M total of funding**, for FY 2022-2026
- Composition of funding (e.g. grants, cooperative agreements, ...) not specified in statute, or RFI released June 29
- Statute specifies the program shall demonstrate the technical and economic viability of carrying out “clean energy projects” on current and former “mine land,” with DOE selecting not more than 5 projects, to be carried out in geographically diverse regions, at least 2 of which shall be solar projects.
- “clean energy project” means project demonstrating 1 or more of the following technologies: (A) Solar; (B) Micro-grids; (C) Geothermal; (D) Direct air capture; (E) Fossil-fueled electricity generation with carbon capture, utilization, and sequestration; (F) Energy storage, including pumped storage hydropower and compressed air storage; (G) Advanced nuclear technologies.
- “mine land” means (A) land subject to titles IV and V of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1231 et seq.; 30 U.S.C. 1251 et seq.); and (B) land that has been claimed or patented subject to sections 2319 through 2344 of the Revised Statutes (commonly known as the “Mining Law of 1872”) (30 U.S.C. 22 et seq.).
- Administered by OCED
- RFI issued: June 29, 2022; RFI responses due: August 15, 2022

[Biden Administration Launches \\$500 Million Program to Transform Mines Into New Clean Energy Hubs | Department of Energy](#)





DOE AND DOD, STATE FUNDING EXPERIENCE

CleanTech Strategies provides consulting, engineering, and government relations services, including in Washington, DC, and the states

Currently consulting to four (4) companies seeking funding under DOE IIJA programs and DOD DIU program

Previously consulted/worked for three (3) companies which sought funding under other DOE and DOD programs

WSU consultant has extensive power industry experience, including serving in executive management of two public utilities with responsibility for large projects such as the Tacoma Narrows Bridge electric infrastructure, as program manager for the Washington State Clean Energy Fund Grid Modernization program collaborating with multiple WA electric utilities to develop and complete 12+ solar+storage microgrids and other energy storage demonstrations, and as consultant for clean energy projects in the Pacific Northwest including Alaska

Poterre principal has extensive federal experience, including as a Senate and White House staffer and FERC advisor to DOD, and outside consultant for DOD to draft, issue, and review DOD solicitations of third-party financed energy resilience solutions; at utility, successfully down selected to receive DOD grant for a cutting-edge microgrid for a DOD base.

Extensive experience with state clean energy funding programs, including Washington State, California, New York, and Massachusetts, as applicant and program manager

CleanTech Strategies respects and protects client proprietary information rigorously, and is committed to identify and accomplish collaboratively the strategic objectives of each client

Thank You



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Webinar Speakers – Q&A

- **Dr. Imre Gyuk**, Director of Energy Storage Research, Office of Electricity, US Department of Energy
- **Katrina Pielli**, Director, Engagement Office, Office of Clean Energy Demonstrations, US Department of Energy
- **Ben Shrager**, General Engineer, Office of Electricity Advanced Grid Research & Development - Grid Systems and Components, US Department of Energy
- **Russ Weed**, President, CleanTech Strategies LLC
- **Dan Borneo**, Engineering Project/Program Lead, Sandia National Laboratories
- **Todd Olinsky-Paul**, Senior Project Director, Clean Energy States Alliance (moderator)



This webinar was presented by the DOE-OE Energy Storage Technology Advancement Partnership (ESTAP)

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ESTAP Website: <https://cesa.org/projects/energy-storage-technology-advancement-partnership/>

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