





# Federal Funding Driving Manufacturing and Economic Development in Energy Communities Webinar



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# Federal Funding Driving Manufacturing and Economic Development in Energy Communities Webinar



Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization

Brian J. Anderson, Ph.D.

Executive Director, Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization

## **Keynote Remarks**

## Jennifer Granholm Secretary, U.S. Department of Energy





## **Energy Infrastructure Reinvestment Financing**

Jigar Shah
Director, Loan Office Program





## Clean Energy Manufacturing and Workforce Programs

### Giulia Siccardo

Director, Office of Manufacturing and Energy Supply Chains









# Office of Manufacturing & Energy Supply Chains Investments in Energy Communities

Director, Giulia Siccardo April 1, 2024

# MESC's Core Functions Underpinned by Robust Analytical Modeling



### VISION

To eliminate
vulnerabilities in US
Clean Energy supply
chains, while driving
unparalleled social,
economic, and
environmental impact
through our
programs & awards

### Manufacturing Investing

Strengthening and securing the energy supply chains America needs for a secure, clean and equitable energy system

### **Workforce Investing**

Supporting workforce skills development by directly funding cutting-edge energy manufacturing training programs

### Manufacturing Analytics Backbone

Robust modeling to guide and support DOE strategy and investments, private sector collaborative investments, and federal policy recommendations

**MESC's investments in** enables the success of DOE's other project deployment offices by **de-risking supply chains** for transmission, H2, carbon capture, and other clean energy projects.



# MESC supports late-stage technology development, driving large-scale energy manufacturing

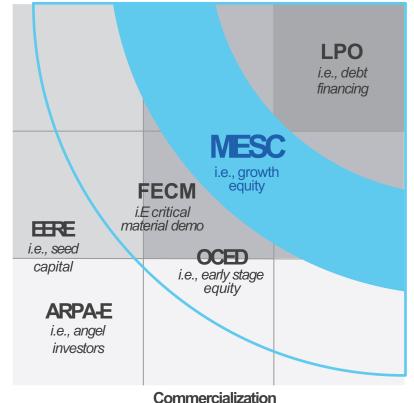
Technology Readiness Level (TRL)

The Office of Manufacturing and Energy Supply Chains leverages private capital investment to secure American energy supply chains.

DOE and MESC investments are datadriven, building on modeling, mapping, and analyses from MESC and National Lab experts.

MESC supports workforce development by directly funding cutting-edge energy manufacturing programs at universities, community colleges, and trade schools, focusing on expanding equitable access to skilled worker training.

### Technology maturity and example DOE offices





Research and development

Demonstration

Deployment

Adoption

# Open MESC Programs

Open for New Applications				
\$400 M	Industrial Assessment Centers Program (IAC) – Implementation	BIL 40521 (b)(1)		
\$425 M	Adv. Manufacturing and Recycling Grants	BIL 40209		
\$24 M	IAC- Clean Energy and Manufacturing Workforce Training and Technical Assistance Awards	BIL 40521 (b)(3)		
\$16 M	IAC Technical Field Managers/ Clearinghouse	BIL 40521 (b)(3)		
\$15 M	Consumer Electronics Battery Recycling, Reprocessing, and Battery Collection	BIL 40207 (f4) [Retail]		
\$10 M	Extended Product System (EPS) Rebate Program	BIL 40555		

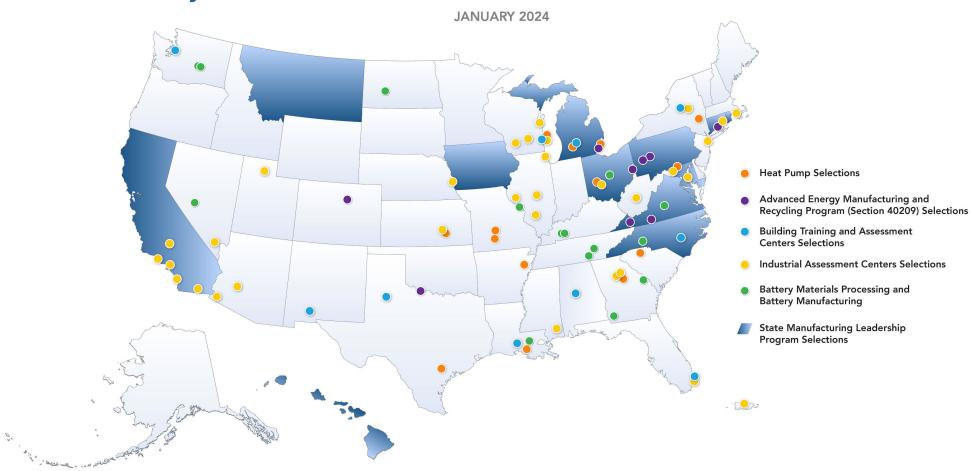
Under Review				
\$3.5 Bn	Batteries Material Processing and Batter Manufacturing Grants	BIL 40207 (b) & (c)		
\$2 Bn	Domestic Manufacturing Conversation Grants Program	IRA 50143		
\$275M	Adv. Manufacturing and Recycling Grants	BIL 40209		
\$250M	Defense Production Act- Heat Pumps Manufacturing	IRA 30001		
\$50M	Consumer Electronics Battery Recycling, Reprocessing, and Battery Collection	BIL 40207 (f3) [State & Local]		
\$50M	State Manufacturing Leadership Program	BIL 40534		
\$32M	Industrial Assessment Centers Program –Expansion	BIL 40521 (b)(3)		

Forthcoming				
\$6Bn	Qualifying Advanced Energy Project Credit (48C) Program Round 2	IRA 13501		
\$1.5M	EV Conversion Playbook Deployment	BIL 40521.b3		
\$63M	Program for Recycling Infrastructure and Smart Manufacturing (PRISM)	BIL 40534 & 40207 (f3)		
\$50M	EV Conversion Grants State Partnerships	IRA 50134		



# MESC has selected 71 projects across 38 states

### **Project Locations for MESC Selectees & Awardees**





# **Energy Communities: Impacts to Date**



### \$1.775 Billion in Direct Investment

- 48C: \$1.5B supports projects in historic energy communities of \$4B selected in Round 1
- 40209: \$275M selected in Round 1



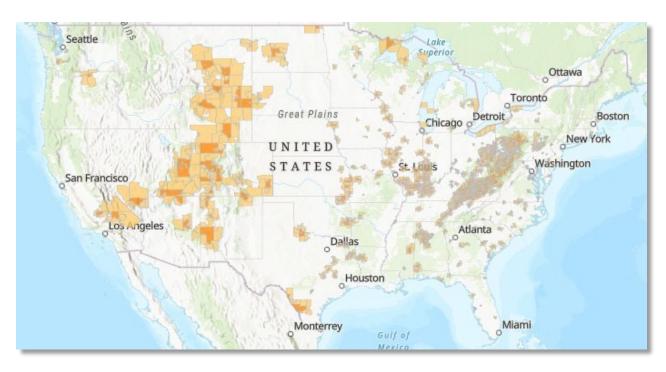
#### **State Benefits**

- 40209: West Virginia, Connecticut, Michigan, Texas, Virginia, Colorado, and Pennsylvania
- Additional projects through 48C



### **Workforce Training & Job Creation**

- Nearly \$2.2M for West Virginia University's Industrial Assessment Center.
- 40209 Round 1 estimated to create up to 1,500 high-quality, good-paying jobs in cutting edge technologies.
- 48C requires prevailing wage and apprenticeships to capture full 30% credit.



Census tract directly adjoining a census tract with a coal closure

Census tract with a coal closure



# § 48C:

# The Qualifying Advanced Energy Project Credit

- Investment tax credit (ITC) expanded by IRA with
  - \$10 billion for
    - (1) clean energy manufacturing & recycling
    - (2) critical materials, and
    - (3) industrial GHG emissions reduction projects
- Projects receive 30% ITC (or 6% if prevailing wage and apprenticeship requirements are not met)

# Legend Scope defined by ARRA in 2009 Scope added by IRA

### Clean Energy Manufacturing and Recycling

 Re-equip, expand, or establish Industrial or manufacturing facility for <u>production or</u> <u>recycling of clean energy and energy</u> <u>efficiency technologies</u>

# Critical Materials Processing, Refining, and Recycling

 Re-equip, expand, or establish an industrial facility to process, refine, or recycle critical materials (50 USGS minerals + DOE critical materials)

# Industrial GHG Emissions Reductions

 Re-equips industrial or manufacturing facility to reduce greenhouse gas emissions at least 20%







Section §48C(e) Energy Communities Census Tracts

OF THE

## \$10 billion

IN TAX CREDITS TO BE ALLOCATED.

### **AT LEAST**

\$4 billion

MUST GO TO QUALIFYING PROJECTS IN ENERGY COMMUNITIES.

§48C energy communities include:

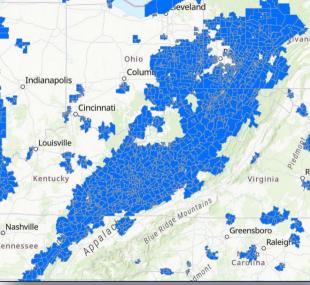
Census tracts with coal mines that have closed since **December 31, 1999** 

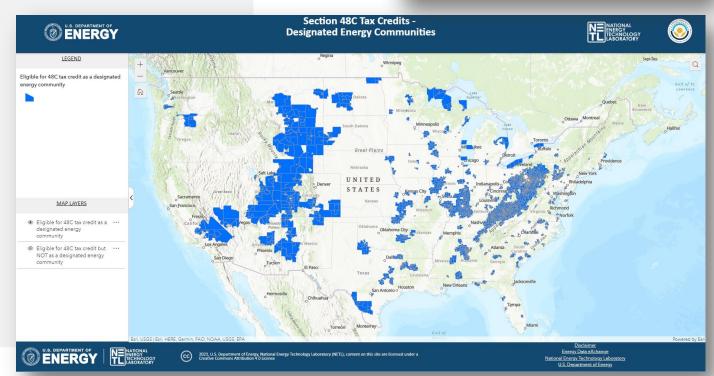
Census tracts with coal power plants that have closed since **December 31, 2009** 

Census tracts immediately adjacent to either of the above

Census tracts without a pre-IRA 48C qualifying advanced energy project

Energy communities have the know-how, workforce and infrastructure to play a leading role in America's clean energy economy





# § 48C Round 1: \$4 Billion in Tax Credits ~\$1.5 Billion for Projects in Energy Communities

Over 100 projects across 35 states selected to accelerate domestic clean energy manufacturing and reduce greenhouse gas emissions at industrial facilities

and reduce greenhouse gas emissions at industrial facilities						
<ul> <li>\$2.7 Billion for projects spanning multiple industries:</li> <li>Clean hydrogen</li> <li>Grid Components</li> <li>EVs &amp; EV batteries</li> <li>Nuclear</li> <li>Solar</li> <li>Wind</li> </ul>	<ul> <li>\$800 Million for critical materials:</li> <li>Electrical steel applications</li> <li>Lithium-ion battery recycling</li> <li>Rare earth projects</li> </ul>	<ul> <li>\$500 Million for diverse industrial decarbonization projects, including:</li> <li>Automotive manufacturing</li> <li>Biofuels</li> <li>Building materials</li> <li>Ceramics</li> <li>Chemicals</li> <li>Food and beverage</li> <li>Glass</li> <li>Iron and steel</li> <li>Low-carbon fuels and energy sources</li> <li>Pulp and paper</li> </ul>				







# Advanced Energy Manufacturing and Recycling Grant Program (BIL 40209)



Projects to establish, re-equip, or expand facilities to produce or recycle clean energy products





### **Greenhouse Gas Emission Reduction Projects**

Projects to establish, re-equip, or expand industrial/manufacturing facilities with equipment designed to reduce GHG emissions through:

- Energy efficiency and industrial waste reduction technologies
- Low- or zero-carbon heat systems;
- Carbon capture, transport, removal, utilization, and sequestration / storage;
- Manufacturing low embodied carbon materials and
- Other industrial technologies that reduce greenhouse gas emissions substantially below current best practices.

### Round 1

\$275 Million for Seven Selected Projects in Energy Communities

Across Seven States

### Round 2

Round 2 Concept papers are due April 22, 2024, at 5:00 p.m. ET Full applications are due July 1, 2024, at 5:00 p.m. ET

\$425 Million available through open FOA

Benefiting small- and medium-sized manufacturing firms

Projects in communities that have experienced coal mine or coal-fired power plant unit closures







# Connect With MESC energy.gov/mesc





MESC@hq.doe.gov



Office of Manufacturing and Energy Supply Chains, U.S. Department of Energy



## **Community Energy Programs**









# Local Government Energy Program:

Communities
Sparking Investment
in Transformative
Energy
(C-SITE)
Funding Opportunity

IWG Webinar April 2024



# Local Government Energy Program (LGEP)

Established in FY22 as an annual program to support transformative clean energy programs in communities





Provide competitive awards, on-site capacity, peer exchanges, and technical assistance







Advance energy efficiency adoption, building and vehicle electrification, grid modernization, distributed electricity generation, and workforce development at the local level

## Introducing C-SITE!



# Communities Sparking Investment in Transformative Energy (C-SITE) Funding Opportunity

Powered by the Local Government Energy Program (LGEP)

\$18 million in funding for clean energy projects and programs



**Deliver Local Benefits** 



**Advance Energy Priorities** 



**Spark New Investments** 

Tribes and Local Governments can apply through May 31, 2024

**Visit:** energy.gov/scep/local-government-energy-program

# Program Goals



Deliver direct local community benefits of clean energy, such as reduced energy costs and improved air quality, through implementation of community-led energy projects or programs



Spark additional investments in communities that create long-term local economic development opportunities and support community revitalization



Advance community-identified energy priorities and right to selfdetermination



Build local capacity and partnerships in local governments and Tribes

## C-SITE Award Structure Overview



**Eligible Entities** 

Tribes and Local Governments, representing:

- disadvantaged communities
- energy communities
- small to medium-sized jurisdictions



Up to 20 competitive awards of approx.

**\$900,000 to \$3.6M** per award.

Grant period: 12-36 months



Customized technical assistance from experts, including peer exchanges



Community Energy Fellow, optional on-site or virtual capacity to support program implementation for up to 18 months



# Communities Local Energy Action Program (LEAP) Cohort 2

Helping communities access the economic and environmental benefits of clean energy



# Communities LEAP Cohort 2 Background



**Opportunity type**: Technical assistance with the opportunity for selected communities to receive direct funding (up to \$50,000) for services rendered to facilitate or help implement technical assistance.

**Total amount**: Up to \$18.75 million in total

**Eligible communities**: Low-income, high energy-burdened communities that are also disadvantaged and/or experiencing direct economic impacts from a shift away from historical reliance on the fossil fuels industry. Applicants must include at least one community-based organization and at least one local, tribal (Federally recognized tribe), territorial, regional, or state government entity.

Number selected communities: 30 communities

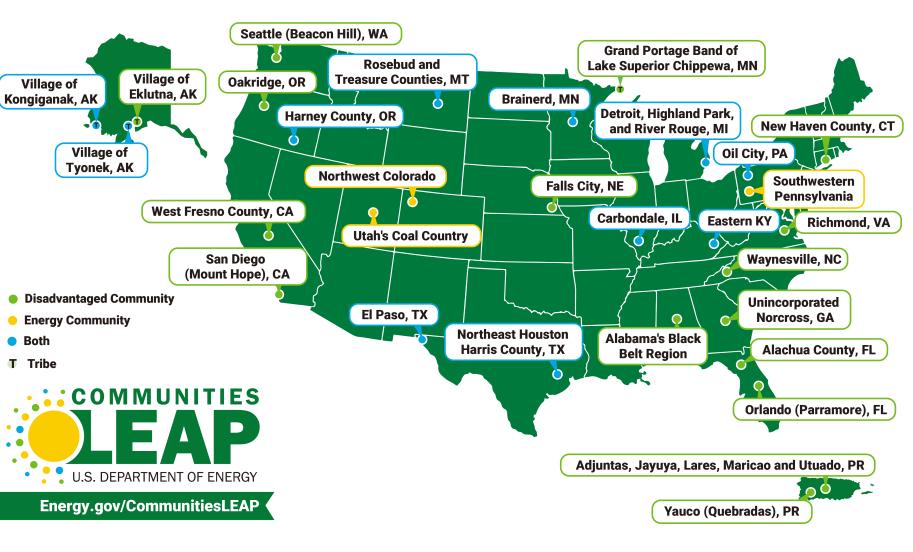
**Length of program**: Approximately 12-18 months

### Approaches of Interest for communitywide economic empowerment through clean energy:

- Clean Energy Planning and Development
- Energy Efficient Buildings and Beneficial Electrification Planning and Investment
- Clean Transportation Planning and Investment
- Carbon Capture and Storage
- Critical Minerals Resource Potential from Energy Wastes and By-products
- Community Resilience Microgrids
- New or Enhanced Manufacturing
- Advanced Nuclear Technology and Support for Existing Reactors
- Puerto Rico Community Resilience (for Puerto Rico communities only)

### Selected Cohort 2 Communities





#### **Approach Areas of Interest**

- 28 Clean Energy Planning
- 18 Community Resilience Microgrids
- 15 Energy Efficient Buildings
- 6 Clean Transportation
- 5 Carbon Capture & Storage
- 5 Advanced Nuclear Technology
- 3 Critical Minerals
- 3 New or Enhanced Manufacturing
- 2 Puerto Rico Community Resilience

### **Community Types**

- 15 Energy Communities
- 12 Both (Energy & Disadvantaged)
- 15 Disadvantaged Communities
- 4 Tribes (incl. 3 Alaska Native Villages)
- 2 Puerto Rico communities

https://www.energy.gov/communitiesLEAP/communities-leap

# Eastern Kentucky, KY



# Coal to Nuclear: Exploring the Economic Potential of Nuclear Energy in Eastern Kentucky

Advanced Nuclear Technology and Support for Existing Reactors

### The Community

- Second most coal-dependent region in the country
- Median income is half the national average
- Life expectancy is 6 years less than the national average
- Energy community where coal plants have closed, economic development is impacted, and utility rates are set to increase by 20%

### The Technical Assistance

- Goal: explore the viability of nuclear energy development in Eastern Kentucky
- Educate the public on nuclear
- Information on economic development opportunities, utility cost impacts, site & data center selection considerations, supply chain manufacturing recommendations, & strategies for private sector engagement

### **Coalition Partners**

- Shaping Our Appalachian Region, Inc
- Kentucky Energy and EnvironmentCabinet's Office of Energy Policy
- One East Kentucky
- One Harlan County
- Big Sandy Area Development District
- FIVCO Area Development District
- East Kentucky Advanced
   Manufacturing Institute (eKAMI)
- Mountain Association
- Kentucky Conservation Committee

## Questions?

For more information contact: <u>CommunitiesLEAPinfo@hq.doe.gov</u> or <u>LGEP@hq.doe.gov</u>

## **Upcoming IWG and MESC Engagement Opportunities**





# Join IWG and MESC in Evansville, IN on Tuesday, April 16.

### Regional events will include:

- An overview of the §48C program.
- Discussion of the advantages of investing in energy communities.
- Networking with federal officials, community leaders, and clean energy manufacturing professionals.

## **Upcoming Engagement Opportunities**



### 2nd Annual Wyoming Funding Summit

Presented by Sen. John Barrasso, Sen. Cynthia Lummis & Gov. Mark Gordon April 8 –12, 2024 Central Wyoming College, Riverton, WY

### Southern Illinois IWG Funding Panel

May 14 & 15, 2024 Shawnee College, Metropolis, IL

### Central Illinois IWG Funding Panel

May 21, 2024, 10:00 a.m. - 4:00 p.m. Western Illinois University, Macomb, IL

## **One-Stop Shop**





**Getting Started Guide** 

Contact the Navigator



Home

About ~

Technical Assistance >

Funding ~

Eligibility Maps 🗸

News and Events ~

**Success Stories** 

Resources

# We are delivering federal resources to help revitalize America's energy communities

**EXPLORE FUNDING CLEARINGHOUSE** 

Learn about new Inflation Reduction Act funding and tax credits 🗹

\$170B<sup>+</sup>

\$405B<sup>+</sup>

171

41

22

Open/Planned Competitive Funding

Open/Planned Formula Funding

Open/Planned
Opportunities Currently
Available

Opportunities That Don't Require Matching Funds Inflation Reduction Act Tax Credits

(Last updated: 3/28/24)







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