LIVE **WEBINAR**

The Diverse Manufacturing Supply Chain Alliance (DMSCA) presents...

Opportunities with **the U.S. Department of Energy and the U.S. Department of Treasury**

Available Funding for Small and Medium Businesses in Manufacturing

DATE
6.20
THURSDAY

HOUR
2 PM - 3 PM
EST

MESC
OFFICE OF MANUFACTURING AND ENERGY SUPPLY CHAINS

DMSCA
DIVERSE MANUFACTURING SUPPLY CHAIN ALLIANCE
ALIGN • COLLABORATE • ACCELERATE

AGENDA

- Welcome & Introductions
- U.S. Dept. of Energy Presentation
- U.S. Department of Treasury Presentation
- Q&A

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CLIFTON YIN

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Funding Opportunities for Small and Medium Manufacturers

BIL and IRA catalyzed almost $500B in US energy investments

$90B

in **BIL & IRA funds** directed to the Department of Energy in 2022

100%

of BIL and IRA clean energy **funding programs activated**

50-yr

US **unemployment low**

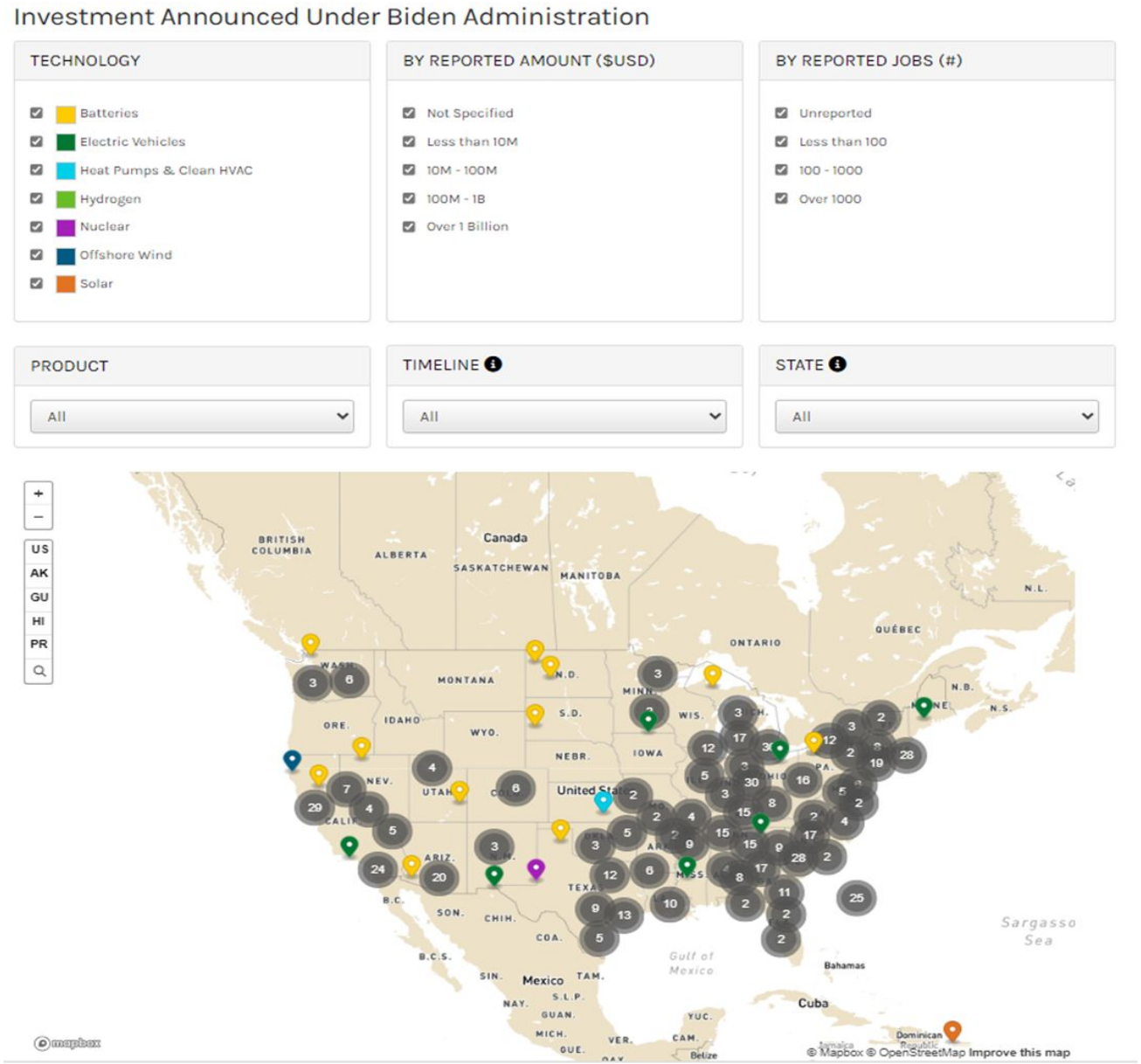
$400B

in **private US infrastructure investment in clean energy** over the past two years

Manufacturing is accelerating across clean energy technologies

US Manufacturing Investment Announcements

- **$120B+** Batteries
- **$35B+** EVs & EV Chargers
- **$16B+** Solar
- **$3.5B** Offshore Wind
- **$2B** Electrolyzers & Fuel Cells



We're back on track!

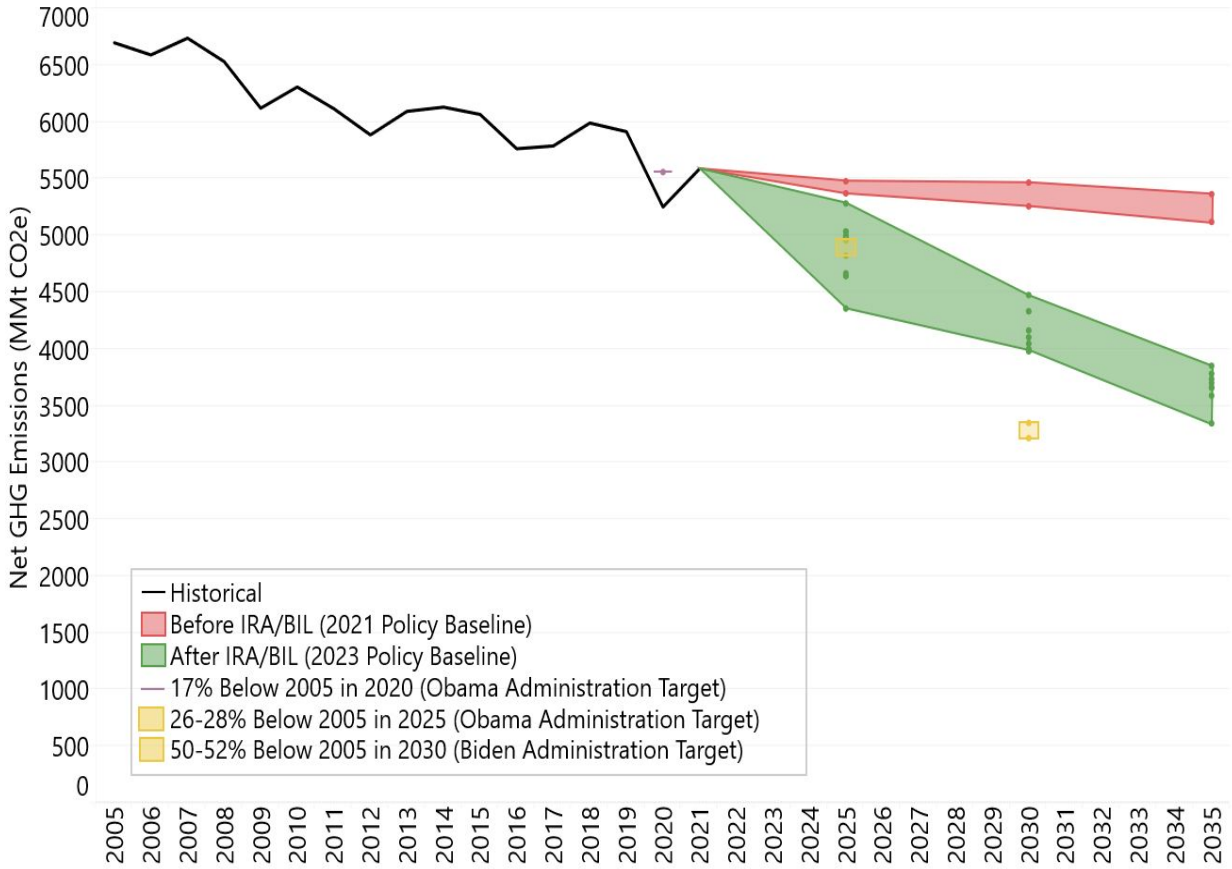
IRA and BIL enabled U.S. net GHG emissions reductions of **33-41% below 2005 levels in 2030**

— ***nearly doubling***

projected carbon reductions

(*compared to the pre-IRA/BIL 2021 trajectory*)

United States Emissions Projection to 2035



Source: UNCC, Voluntary Supplement to the U.S. Fifth Biennial Report 2023

MESC is all about de-risking energy supply chains

VISION

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

MESC'S CORE FUNCTIONS

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

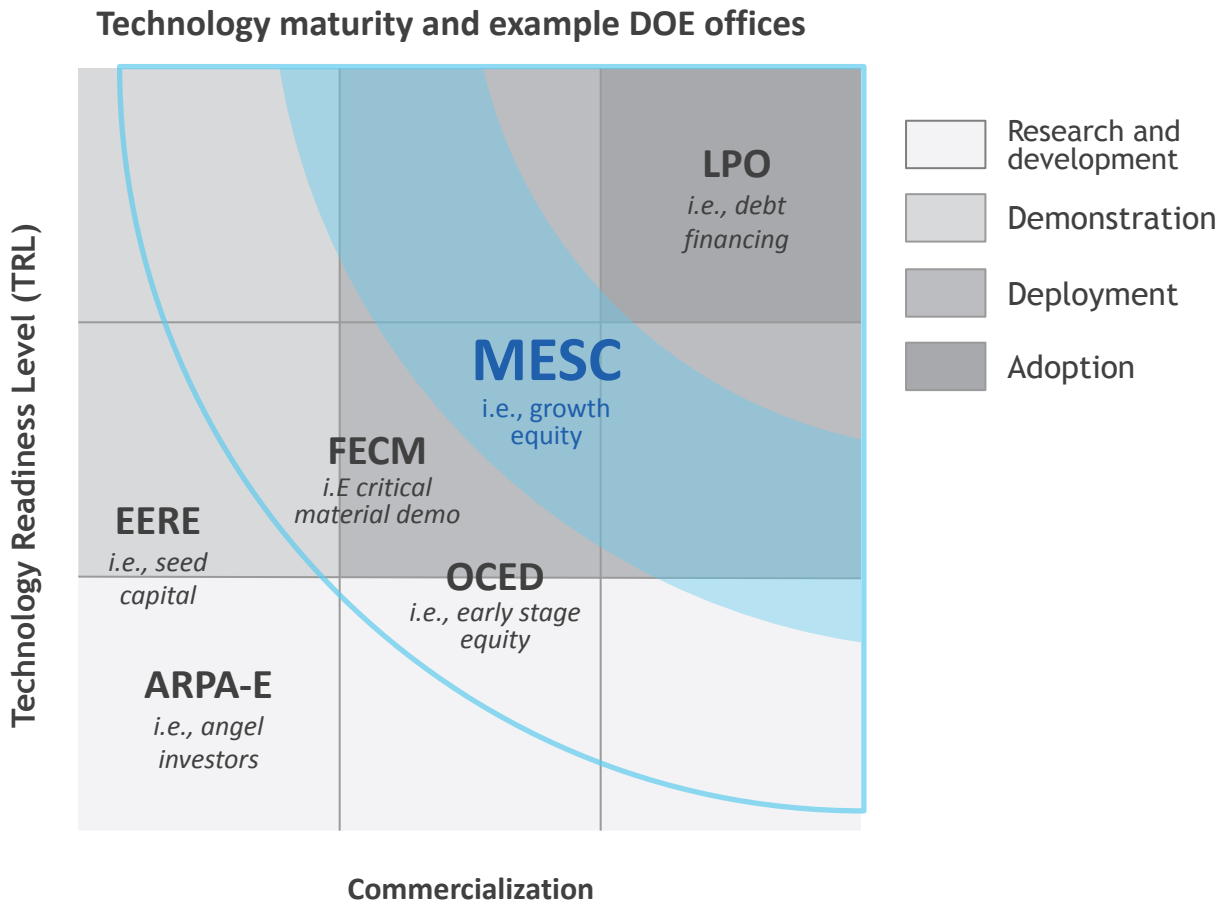
Robust modeling to guide and support DOE strategy and investments, private sector collaborative investments, and federal policy recommendations

MESC operates in late-stage technology development, driving large-scale deployment of new technologies

The Office of Manufacturing and Energy Supply Chains is working alongside private capital to be a force multiplier to secure American supply chains domestically.

All DOE and MESC investments follow a data-driven approach, building on modeling, mapping, and analysis foundational from MESC experts.

MESC is supporting workforce through direct funding of cutting-edge energy manufacturing programs at universities, community college, and trade-schools to provide entry-level and mid-career support.

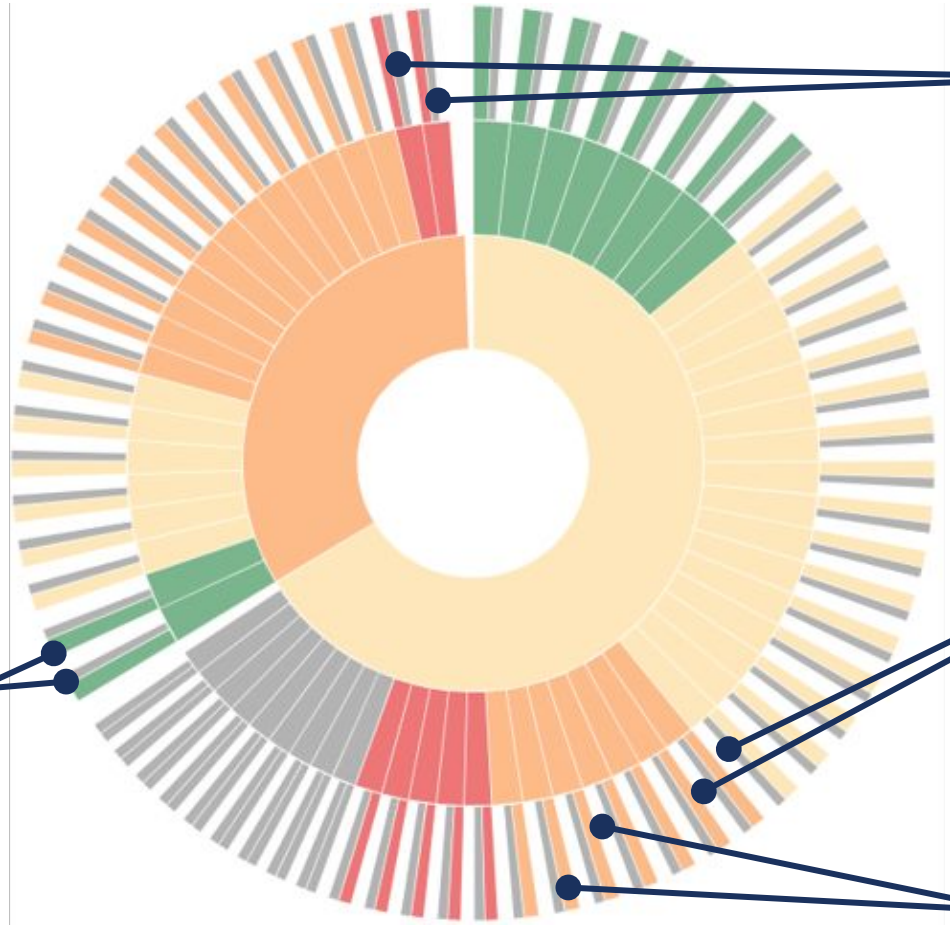


Supply Chain Readiness Level (SCRL) framework: analyzing supply chain vulnerabilities

Sample Technology

Low — Readiness Assessment — High

Analysis In Progress



Rare-earth elements with limited sources controlled by FEOC

No domestic manufacturing

The U.S. has abundant supplies of relevant raw materials

Manufacturing needs exceed current capabilities at domestic facilities

MESC's impacts to-date

- $3.9B+ private sector investment catalyzed
- 8755 construction and permanent jobs created
- 38% of investments in energy communities or J40 communities
- 1000+ students trained annually
- 1.3M+ EVs enabled annually
- 18.7M+ in benefits flowing to communities through Community Benefits Plans

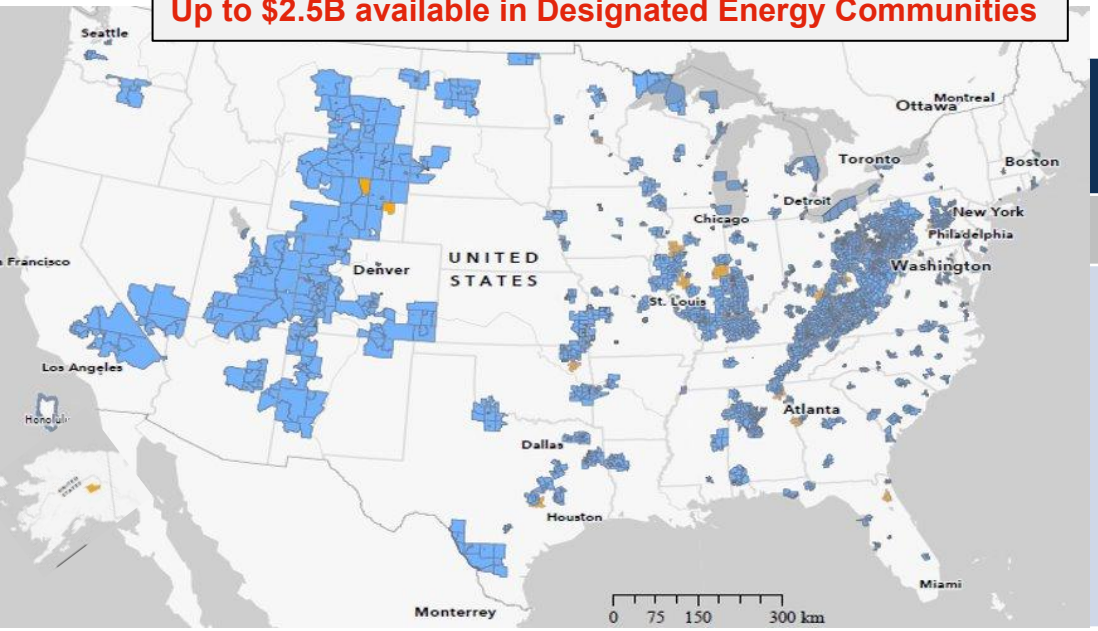
MESC Programs

Open for Applications	Under Review	Selected for Negotiation
Qualifying Advanced Energy Project Credit 48C Program Round 2 (Up to $6 billion)*	Advanced Manufacturing and Recycling Grants R2 ($425 million)*	Advanced Manufacturing and Recycling Grants R1 ($275 million)
Industrial Assessment Centers Implementation Grants ($400 million)	Consumer Electronics Battery Recycling, Reprocessing, and Battery Collection for Retailers ($15 million)	Consumer Electronics Battery Recycling, Reprocessing, and Battery Collection for States & Local Government ($7.2 million)
Extended Product System Rebates ($10 million)	Battery Material Processing and Battery Manufacturing Grants ($3.5 billion)	Defense Production Act – Heat Pumps Manufacturing R1 ($169 million)
	Defense Production Act – Heat Pumps Manufacturing R2 ($63 million)*	Industrial Assessment Centers Program – Expansion ($32 million)
** prior submission of a concept paper required for to submit a full application*	Domestic Manufacturing Conversion Grants Program ($2 billion)*	State Manufacturing Leadership Program ($22 million)
	IAC Technical Field Manager/Clearinghouse ($16 million)	
	IAC Clean Energy Manufacturing Workforce Training and Technical Assistance Awards ($24 million)	

Coming Soon!
State and local government funding to support small & medium advanced manufacturing and consumer battery recycling

$6B available in Round 2 of 48C Qualifying Advanced Energy Project Credit

Up to $2.5B available in Designated Energy Communities



Example of Round 1 Selections

Critical Materials	Industrial Decarbonization
$800 Million	**$500 Million**
Electrical steel applications Lithium-ion battery recycling Rare earth projects	• Ceramics • Chemicals • Food and beverage • Glass • Iron and steel • Pulp and paper • Automotive manufacturing

Round 2 Guidance Updates:

- Updated list of program supply chain priority areas
  - New technology area (energy-intensive materials with substantially lower carbon intensity)
- Expanded list of eligible energy communities

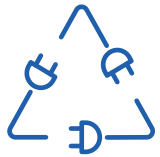
Concept Papers Due June 21st by 5pm ET

48C landing page

IAC Implementation Grants

Bipartisan Infrastructure Law Provision 40521.b1

$80M in funding available in the first year (additional funding available in the next couple years depending on demand)



Grants awards of up to $300,000 per quarterly funding round, at a 50% cost share[1] (valid cost share options include internal capital, in-kind contributions, state and local public programs, private loans – including SBA-guaranteed sources, utility programs, leases, and Energy Savings Performance Contracts)

Eligibility exclusively for small- and medium-sized manufacturing firms,[2] and water and wastewater treatment facilities

To address energy assessment recommendations by IACs, DOE Combined Heat and Power/Onsite Energy Technical Assistance Partnerships, or other third-party assessors deemed equivalent by DOE

1. *50% cost share means that the applicant must cover at least 50% of the project cost. So, for instance, if an implementation project or projects costs $100k, DOE can make a $50k grant.*

2. *Small and medium-sized manufacturer (an entity that engages in the mechanical, physical, or chemical transformation of materials, substances, or components; or, a water or wastewater treatment facility) is a firm with: gross annual sales of less than $100M, fewer than 500 employees at the plant site, and annual energy bills of $100,000 - $3,500,000. If the manufacturer/facility is an individual LLC that pays separate taxes from the parent company, then eligibility is based on the LLC.*

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Workstream 1: Implementation Grants Funding

Provide federal funding to eligible SMMs to implement recommendations made in:

- No-cost IAC or CHP/Onsite Energy TAP assessments starting in 2018, or
- Qualified third-party assessments starting in 2021

Covered projects include energy assessment report recommendations that:

Improve site energy and/or material efficiency

Improve site cybersecurity infrastructure

Improve site productivity

Reduce site waste production

Reduce site greenhouse gas emissions and/or nongreenhouse gas pollution

Grant Eligibility Requirements

Annual Gross Sales[1]

- Few than $100M
- Based on **manufacturing firm/entity**

Number of Employees

- Fewer than 500
- Based on **facility/plant site**

Annual Energy Bills[1]

- Between $100K - $3.5M
- Based on **manufacturing firm/entity**

All three grant eligibility requirements can be determined using either last completed fiscal year or year in which the assessment was completed (if different)

1. If the manufacturer/facility is an individual LLC that pays separate taxes from the parent company, then eligibility is based on the LLC.

Getting a Qualified Assessment

Option 1: Industrial Assessment Centers (IACs)

Receive a no-cost comprehensive assessment from one of 36 IACs located at four year-universities around the country. To locate the closest IAC and apply, visit: https://www.energy.gov/mesc/locations-industrial-assessment-centers

Option 2: Onsite Energy Technical Assistance Partnerships (TAPs)

Receive a no-cost screening assessment for onsite clean energy technology deployment from one of 10 regional TAPs. To locate the closest Onsite Energy TAP and apply, visit: https://betterbuildingssolutioncenter.energy.gov/onsite-energy/taps

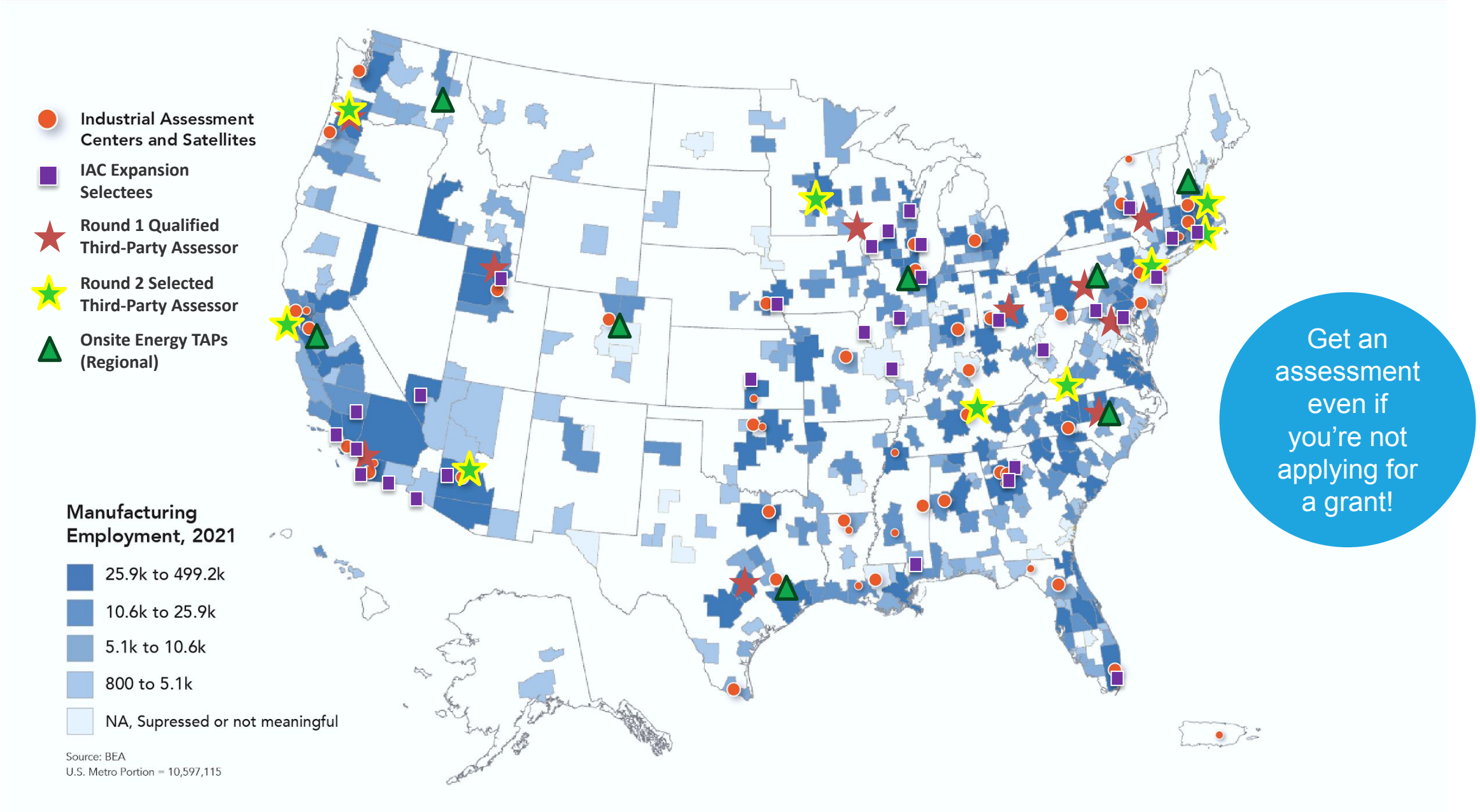
Option 3: Third-Party Assessors

Receive an assessment* from a third-party assessor qualified as "IAC-equivalent:"

- Alternative Energy Systems Consulting, Inc.
- BASE Energy, Inc.
- Cascade Energy
- CLEAResult
- Cunningham Engineering PC
- Energy 350
- eSai LLC
- Frontier Energy, Inc.
- GENEDGE Alliance
- Go Sustainable Energy, LLC
- Lincus, Inc
- Michaels Energy
- New York State Energy Research and Development Authority: Flexible Technical (FlexTech) Assistance Program
- North Carolina Advanced Energy Corporation
- Pennsylvania Technical Assistance Program (PennTAP)
- QGM Consulting
- Rutgers Center for Advanced Energy Systems
- TRC
- Utah DEU StepWise Program

*DOE cannot guarantee that third-party assessments will be free

Qualified Assessor and Grant Locations



Get an assessment even if you're not applying for a grant!

IAC Implementation Grants Program Process

1

Receive a Free Qualified Assessment

Small- to medium-sized manufacturer receives an energy assessment from a qualified assessor (IAC, CHP/Onsite Energy TAP, or third-party* assessor)

2

Apply for Grant Funding

Manufacturer applies for IAC Implementation Grant funding of up to $300,000 (with 50% cost share) to implement project recommendations from qualified assessments

3

Get Selected and Receive Grant Funding

DOE selects and works with manufacturer to finalize award size and sign award documents; after project implementation, manufacturer submits invoice(s) of incurred costs to DOE to receive grant funding

To learn more about the grants program, including FAQs and how to apply, visit

www.energywerx.org/iac

Working through a "partnership intermediary" enables a very streamlined application process!

*DOE cannot guarantee that third-party assessments will be free

Grant Awards Snapshot

78 awards across 29 states to date

~$10 million in grant funding for projects valuing ~$27.5 million

Average grant of $127,000

Project examples include:

- Installing onsite power
- HVAC/boiler upgrades
- Combined heat and power
- VFDs installation
- Power factor upgrades
- LED upgrades

For the full list of selectees, including locations, project types, and federal and applicant cost share amounts, visit: https://www.energy.gov/mesc/industrial-research-and-assessment-center-implementation-grant-awards

The Application Process

When to Apply?

The IAC grants program operates on a rolling basis and applications may be submitted at any time through the year, with reviews after the following deadlines:

- July 1, 2024
- October 1, 2024
- January 10, 2025
- Later deadlines to come!

How to Apply?

Thanks to a unique partnership, in contrast to traditional DOE funding opportunities, the IAC grants program has a very simple and straightforward application form and process.

Applications should not take more than a couple hours and are filled out via Submittable.com, not a federal government website.

www.energywerx.org/iac

Other Questions?

The IAC grant program team will be hosting informational monthly office hours:

- July 11, 2024 from 2:00 – 3:00 PM ET (RSVP Link)
- August 15, 2024 from 2:00 – 3:00 PM ET (RSVP Link)
- September 19, 2024 from 2:00 – 3:00 pm ET (RSVP Link)

Click here to review frequently asked questions (FAQs). If you have additional questions, please contact ENERGYWERX: info@energywerx.org

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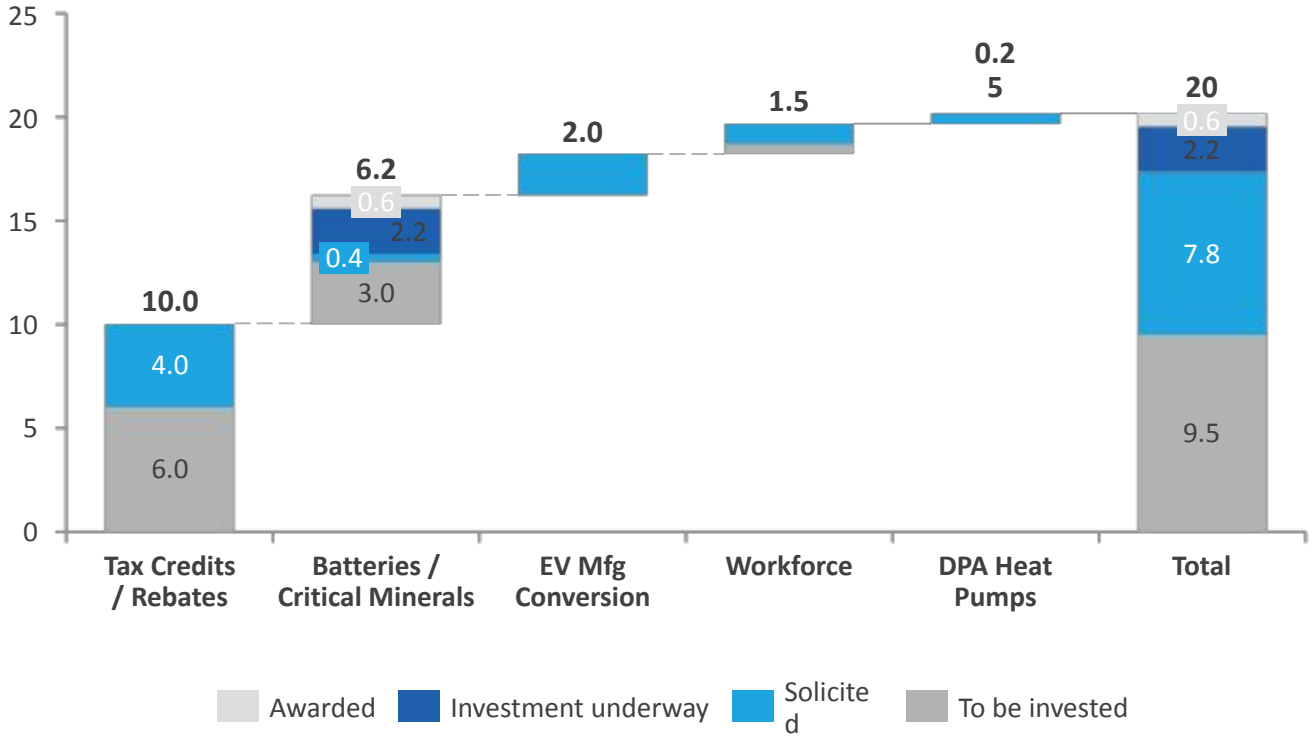
MESC is working to deploy an additional $20B+ across workforce, batteries, and ESIB initiatives

MESC investments ($B)



$20B+ Amount outstanding to be invested

$2.8B Invested in batteries and critical minerals, to-date

~15% Funding awarded or with investment underway

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MESC

RACHEL McCLEERY

SENIOR ADVISOR INFLATION REDUCTION ACT PROGRAM OFFICE
U.S. DEPARTMENT OF TREASURY

Inflation Reduction Act Incentives for Clean Energy Suppliers

Ground Rules: Disclaimers

- This deck provides an overview of certain Inflation Reduction Act tax provisions for general informational purposes only and **is not itself tax guidance**.
- The content in this presentation is based on proposed regulations and other tax information on IRS.gov.
- This deck relies on simplifications and generalizations to convey high-level points about Inflation Reduction Act tax provisions. Please **refer to guidance** issued by the IRS for detailed information on the rules associated with Inflation Reduction Act tax provisions.
- Treasury and the IRS will **carefully consider feedback submitted** during the public comment periods for proposed regulations before issuing final rules.

The Inflation Reduction Act

- The Inflation Reduction Act (IRA) makes the **largest investment in clean energy** in United States history. The bulk of the IRA investments flow through the tax code instead of direct government spending.
- Under the Biden-Harris Administration, private companies have announced commitments to invest $173 billion in electric vehicle and battery manufacturing, $77 billion in clean energy manufacturing and $155 billion in clean power projects.
- The IRA is a massive part of this manufacturing boom. It's creating jobs, saving consumers money and accelerating the nation’s transition to clean energy. It will reduce volatility in the cost of energy and increase the nation’s energy independence.

The Role of the Treasury Department

- The Treasury Department is the federal agency responsible for **administering the tax code** and is **proud to be playing a central role** in implementing the IRA's clean energy tax incentives.
- Treasury's Clean Energy Implementation Activities include:
  - Quickly **developing and issuing tax guidance** to provide clarity and certainty around how the law's tax incentives will operate in practice
  - Working with the Internal Revenue Service to put in place **modern, streamlined processes** for taxpayers to claim the clean energy incentives
  - Conducting **stakeholder engagement and outreach** to inform our approach and to educate the public about the benefits that are now available

The Role of Tier II and Tier III Suppliers

- A diverse supply chain is a resilient supply chain, which matters for the long-term health of these sectors.
- Recent experience has served as a reminder of the risks of supply chain disruptions across a range of products, including energy suppliers. In this and other key sectors, supply chain resilience and diversification are critical.
- Treasury has an unprecedented opportunity to help small and disadvantaged businesses, including those located in designated energy communities and those owned by women and people of color, to get in on the ground floor as our domestic clean energy sectors expand.
  - Investing in America Small Business Opportunity Program
  - DOE Adv. Energy Manufacturing & Recycling Grant Program

Introduction: Advanced Energy Project Credit (§ 48C) and Advanced Manufacturing Production Credit (§ 45X)

- Taxpayers are eligible for two federal tax credits that support clean energy manufacturing in the United States:
  - The Qualifying Advanced Energy Project Investment Tax Credit (§ 48C) program provides an allocated investment tax credit for investments in advanced energy projects that expand clean energy manufacturing and recycling and critical materials refining, processing and recycling, and for projects that reduce greenhouse gas emissions at industrial facilities.
  - The Advanced Manufacturing Production Tax Credit (§ 45X) provides tax credits for the production and sale of certain eligible components, including solar and wind energy components, inverters, qualifying battery components and applicable critical minerals.
- Components that were made at a facility that claimed the § 48C credit are not eligible for the § 45X credit.

Overview of the Advanced Energy Project Investment Tax Credit (§ 48C)

- The program provides an allocated investment tax credit for investments in two main project categories, as defined in 26 USC § 48C(c)(1):
  - Projects that expand 1) clean energy manufacturing and recycling and 2) critical materials refining, processing and recycling
  - Projects that reduce greenhouse gas emissions at industrial facilities
- The program sets aside 40 percent of the $10 billion for projects in designated energy communities with closed coal mines or retired coal-fired power plants.
- **Concept papers for the remaining $6 billion are due tomorrow. More information can be found on DOE's Qualifying Energy Project Credit website**

About the Advanced Manufacturing Production Credit (§ 45X)

- The Advanced Manufacturing Production Credit (§ 45X) provides a production tax credit for domestic manufacturing of components for solar and wind energy, inverters, battery components, and critical minerals.
  - Credit for critical minerals is permanent starting in 2023. For other items, the full credit is available between 2023-2029 and phases down over 2030-2032.
- It is a per-unit tax credit for each clean energy component domestically produced and sold by a manufacturer. It is a general business credit claimed against federal income tax and is also available for elective pay and transferability.
- In many cases, the credit varies by eligible component and is multiplied by the number of units produced by the taxpayer that were sold that year.

About the Advanced Manufacturing Production Credit (§ 45X)

- The § 45X credit has been a major driver of the boom in clean energy manufacturing investment.
- The § 45X credit and Treasury's proposed regulations will support the build-out of America's clean energy manufacturing base, creating American jobs and promoting energy security as we reduce carbon emissions.
- For a company to receive a § 45X credit, the credited component must be substantially transformed in the United States or a U.S. territory.
- The § 45X credit will level the playing field for companies to onshore production of critical clean energy technologies to the U.S. that are currently predominately located in foreign countries like China.

Closing

- For more information on the IRA, visit:
  - IRS.gov/CleanEnergy
  - Treasury.gov/IRA
  - White House IRA Guidebook
  - § 48C
    - Qualifying Advanced Energy Project Credit (48C) Program | Department of Energy
    - Initial Guidance (Notice 2023-18) and Additional Guidance (Notice 2023-44)
    - 48C Portal
  - § 45X
    - Advanced Manufacturing Production Credit - Notice of Proposed Rulemaking
    - Instructions for Form 7207 (01/2024) | Internal Revenue Service (irs.gov)

KIM VU

SENIOR MANAGER OF ENVIRONMENTAL AND SOCIAL RESPONSIBILITY APPLIED MATERIALS

APPLIED MATERIALS®

Q&A

THANK YOU

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