



# SCEP

STATE & COMMUNITY ENERGY PROGRAMS

## Advancing Place-based Clean Energy Transitions

**Chris Castro**  
Chief of Staff, SCEP  
U.S. Department of Energy

Smart Cities Council

April 26th, 2023



# Overview

- The ‘Magic Moment’
- Intro to SCEP Office, programs, and opportunities
- IRA Home Energy Rebates
- DOE Office of Community Engagement



# Biden-Harris Administration Priorities

- The Administration knows there is **no greater challenge** facing our nation and our planet than climate change.
- We can turn the threat of climate change into an **opportunity** to:
  - Revitalize the U.S. energy and manufacturing sectors.
  - Create millions of high-quality, good paying jobs throughout the country.
  - Address historic environmental injustices and inequities.
- DOE is working to advance these goals and help the U.S. build a **100% clean energy economy** and reach **net-zero emissions** no later than 2050.

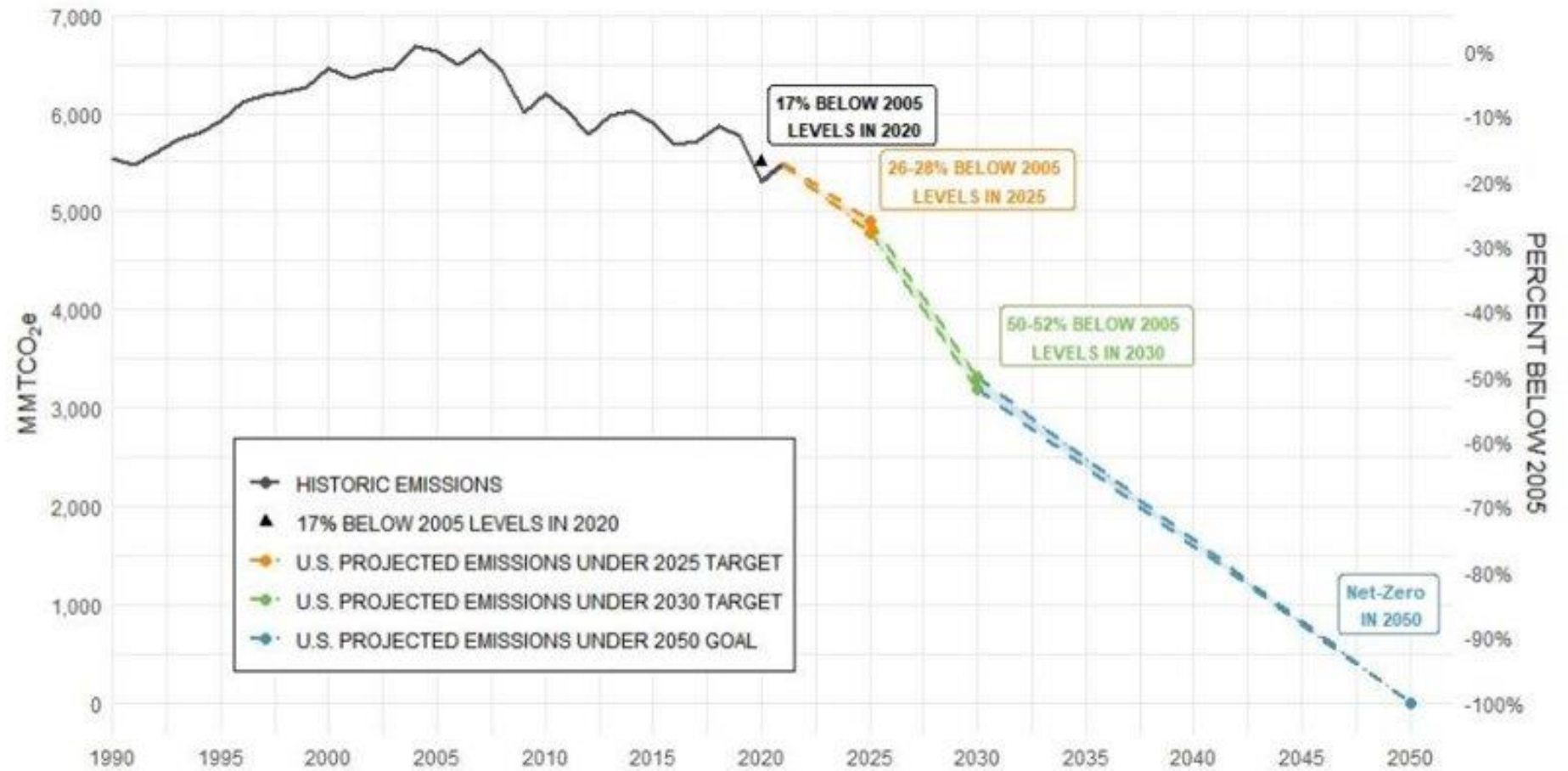


# DOE investments align with the Administration's near- and long-term climate and clean energy goals

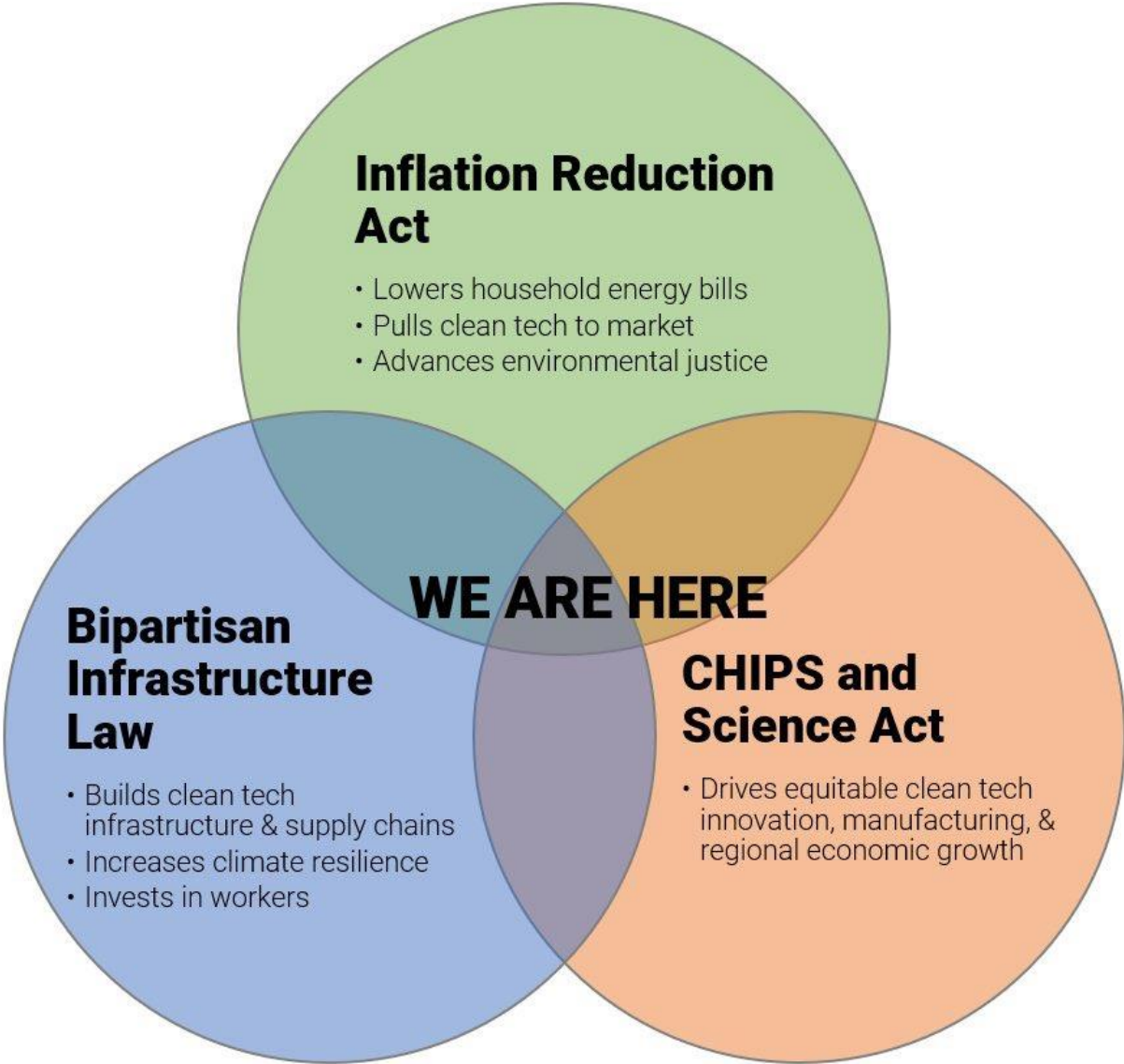
**50-52%**  
GHG reductions by  
2030

**100%**  
clean electricity by  
2035

**Net-Zero**  
emissions by  
2050



# Over \$500 billion invested in the clean energy transition



# Over \$460 billion in private-sector investment since October 2022

## American-Made Batteries

New U.S. Battery Manufacturing and Supply Chain Investments Announced Under President Biden

March 30, 2023



Over \$90 billion announced so far



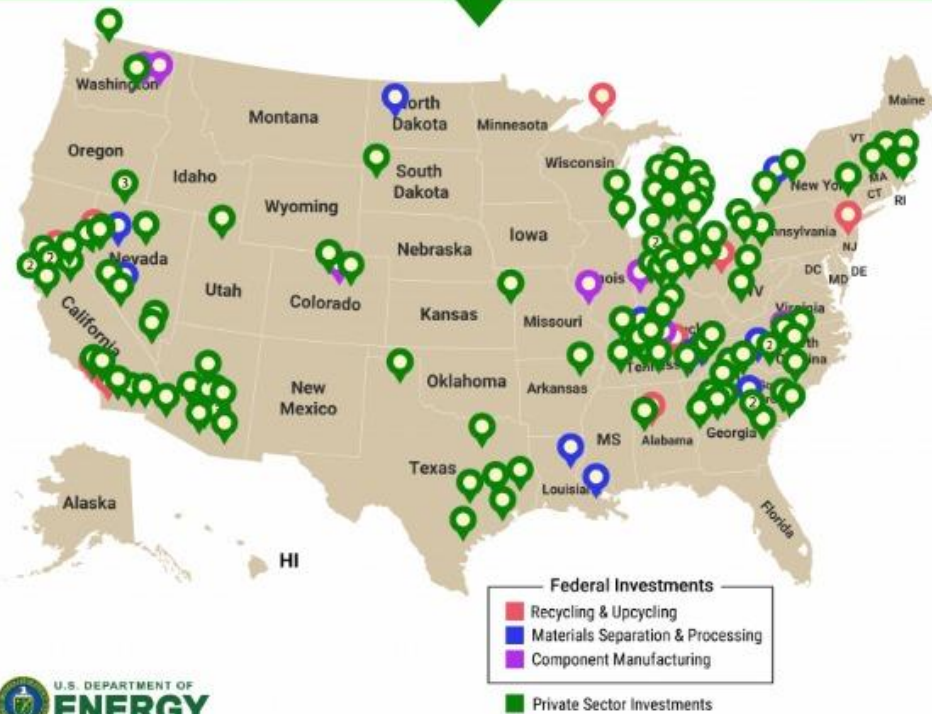
Over 150 new or expanded minerals, materials processing and manufacturing facilities



Enough to power 10 million EVs each year



Over 60,000 new jobs



Based on publicly available information. Many facilities are conditional on financing, funding, site control, and other factors.

## American-Made Offshore Wind

New US Offshore Wind Manufacturing Facility, Port, and Vessel Investments Announced Under President Biden

March 30, 2023



Nearly \$3.5 billion announced manufacturing and port investments



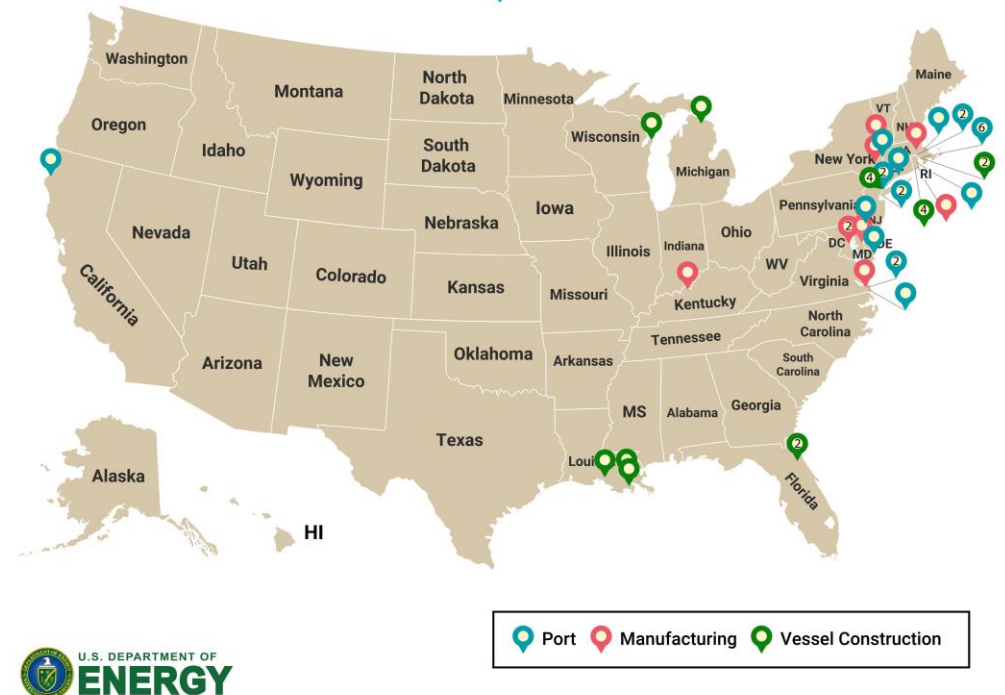
Investments in 11 manufacturing facilities and 13 ports



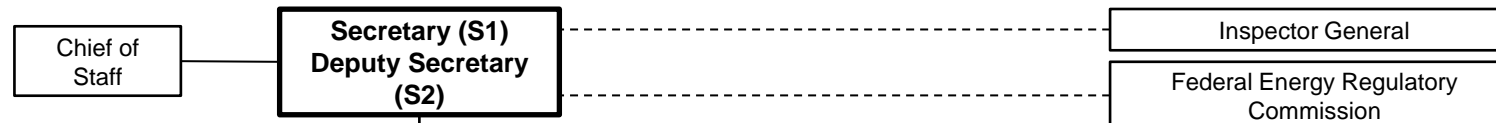
17 new vessels being built in 7 different states



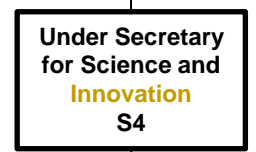
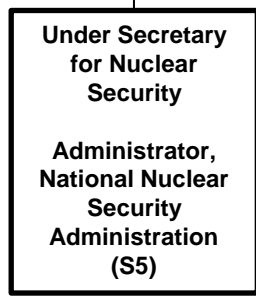
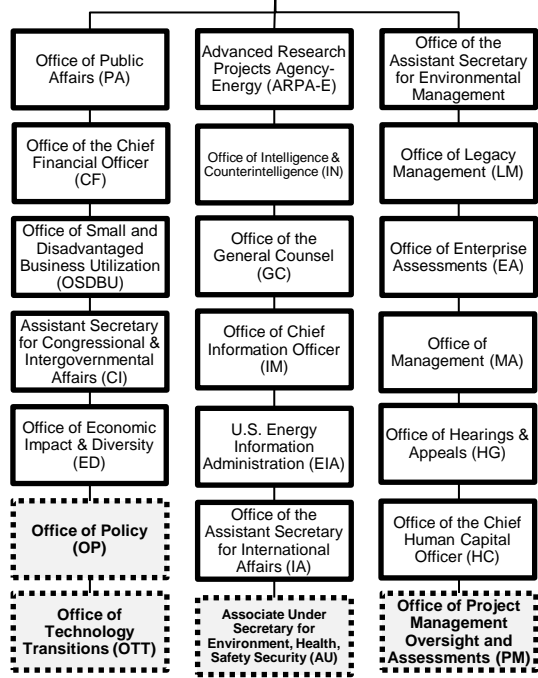
Thousands of new jobs



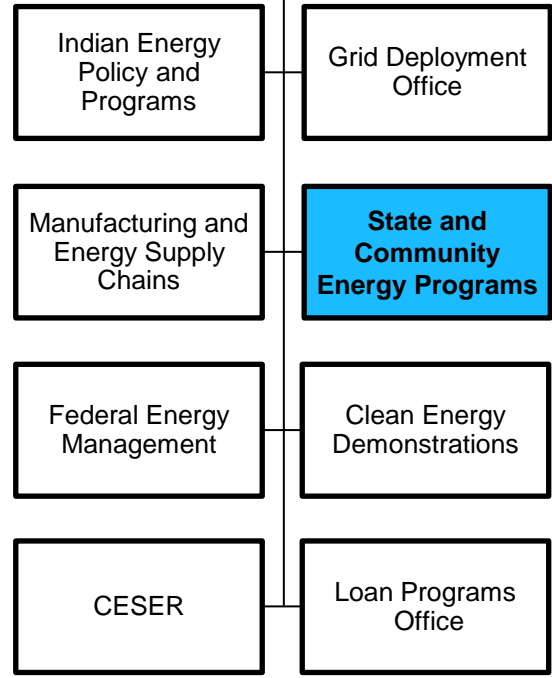
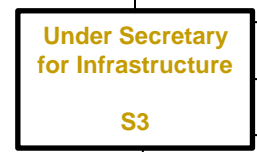
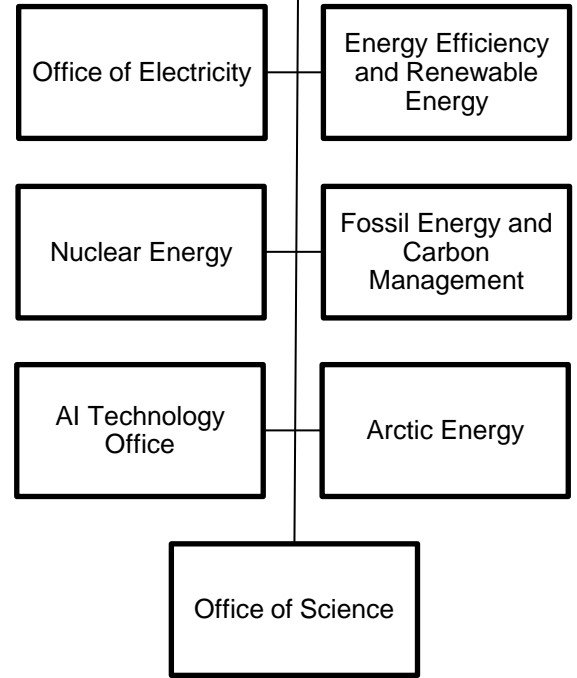
Based on publicly available information. Many facilities are conditional on financing, funding, site control, and other factors. Not included in the map are facilities announced as explicitly conditional on winning a power-sales contract. Numbers within a single pin denote multiple investments or facilities at a single location.



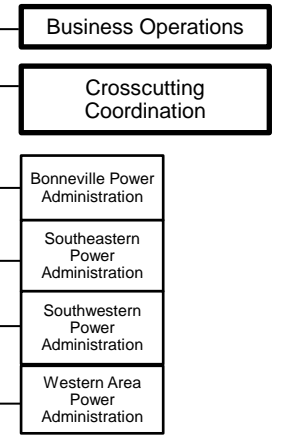
Also reporting directly to the Secretary / Deputy Secretary



**S4:** The innovation engine. Driving research and development of energy technologies, with connected demonstration and deployment activities.



**S3:** Partnering with S4 to advance clean energy and climate change technologies through large-scale demonstration projects and deployment activities.



Legend Moved to S1

SCEP's Mission is to partner with State, Local, and Tribal governments and community organizations to catalyze local economic development and job creation through equitable, clean energy solutions.



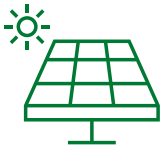
# SCEP's Strategic Priorities

## Whole Greater than Sum of its Parts

SCEP does this through the **management and oversight of \$16 billion** in formula grants, competitive grant awards, consumer rebate grants, and technical assistance.



Prioritize  
Justice40  
Initiative



Deploy clean  
energy  
technologies



Catalyze local  
economic  
development



Create  
jobs and increase  
through place-based  
hiring



Avoid pollution  
through place-based  
strategies



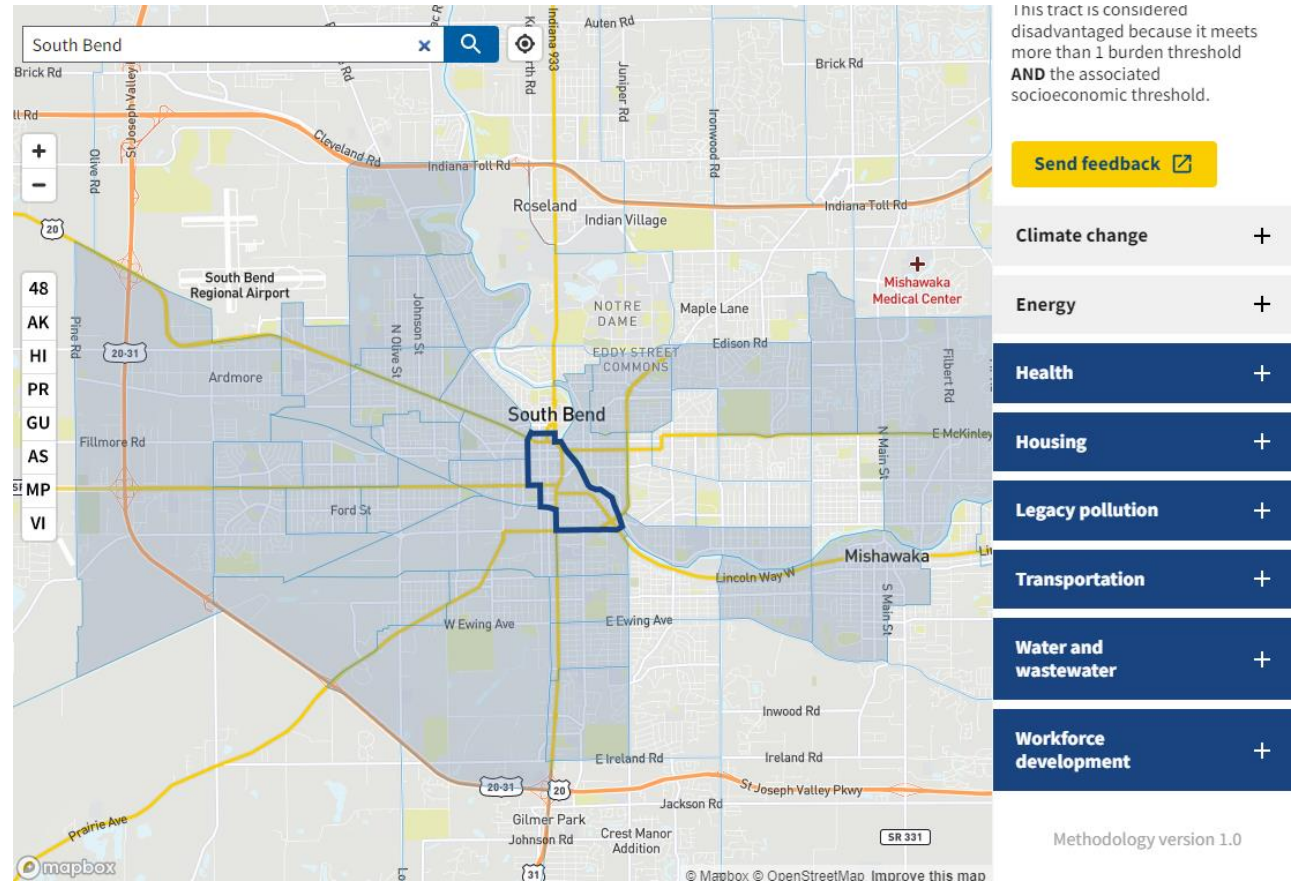
Reduce  
energy costs

# Justice40 & Climate and Economic Justice Screening Tools

## Justice 40

The Federal Government has made it a goal that **40 percent of the overall benefits** of certain Federal investments flow to disadvantaged communities that are marginalized, underserved, and overburdened by pollution. President Biden made this historic commitment when he signed **Executive Order 14008** within days of taking office.

Source: *Climate & Economic Screening (CEJS) Tool identifies census tracts that are overburdened and underserved are highlighted as being disadvantaged on the map. Federally Recognized Tribes, including Alaska Native Villages, are also considered disadvantaged communities.*



# 28+ Programs

# State & Community Energy Program

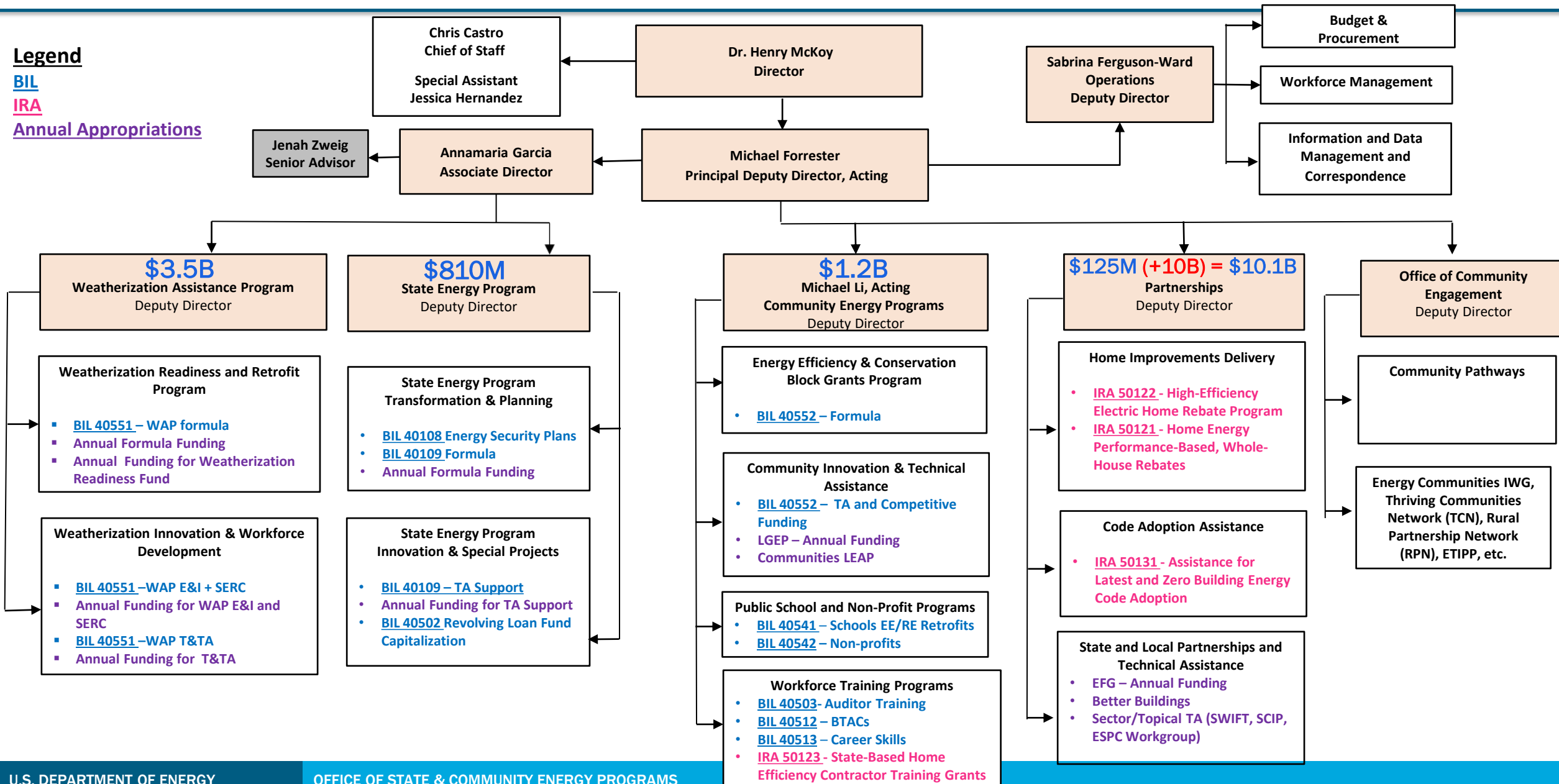
~\$6B (+\$10B) = \$16B

## Legend

BIL

IRA

Annual Appropriations



# BIL Provisions (Approx. \$6 Billion)



 <p>Building Training &amp; Assessment Centers <b>\$10M</b></p>	 <p>Career Skills Training <b>\$10M</b></p>	 <p>Energy Auditor Training Grant Program <b>\$40M</b></p>
 <p>Energy Efficiency Materials Pilot Program <b>\$50M</b></p>	 <p>Revolving Loan Fund Program <b>\$250M</b></p>	 <p>EE &amp; Conservation Block Grant Program <b>\$550M</b></p>
 <p>Grants for Public School Facilities <b>\$500M</b></p>	 <p>State Energy Program <b>\$500M</b></p>	 <p>Weatherization Assistance Program <b>\$3.2B</b></p>

# Energy Efficiency for Nonprofit Organizations

**New competitive grant program for energy improvements at nonprofit facilities.**

**Funding:** \$50M, in FY 2022, available until expended

**Grant Cap:** Each grant not to exceed \$200,000

**Qualifying Uses:** energy-efficiency materials defined by provision as material (including a product, equipment, or system) the installation of which results in a reduction in use by a nonprofit organization of energy or fuel. Examples include lighting, heating and air conditioning, windows, roof systems, building automation systems, etc.

**Eligible Applicant:** Any 501(c)(3) for use in a building they own and operate



**Prioritization** (*specified by provision*):

1. Energy savings achieved;
2. Cost effectiveness of the use of energy-efficiency materials;
3. Effective plan for evaluation, measurement, and verification of energy savings; and
4. Financial need of the applicant.

# Renew America's Schools grant and Energy CLASS Prize

## New competitive grant program for energy improvements at public school facilities

**Funding:** \$500M (\$100M FY22-26), available expended, through competitive grants

**Qualifying Energy Improvements:** Improvements, repairs, or renovations that reduce energy costs or lead to improved teacher and student health and achieve energy savings, installation of renewable energy, installation of alternative fueled vehicle (AFV) infrastructure, and purchases or leases of AFV.

**Eligible Entities:** Consortia of 1 local educational agency (LEA) and one or more schools, non-profits, for-profits, or community partners. LEA Definitions include School Board, Bureau of Indian Education Schools, Educational Service Agencies.



**Prioritization:** Schools with improvement funding needs, high free and reduced-price lunch percentage or rural locale, and leverage private sector funding through performance contracting.

**Interagency Collaboration:** EPA, Dept of Ed, USDA, DOD, DOT

# Training and Workforce Development

## \$260M in Workforce Funding across SCEP

- Training Residential Energy Contractors (TREC): \$200M
- Building Training Assessment Centers: \$10M
- Energy Auditor training: \$40M with award size up to \$2M
- Career Skills Training: \$10M



# Inflation Reduction Act Provisions (\$10 billion)



## Home Energy Performance-Based, Whole House Rebates

To award grants to State Energy Offices to develop and implement a “HOMES” rebate program that provides rebates to homeowners and aggregators for certain whole-house energy-saving retrofits made for LMI households.

**\$4.3B**



## Home Energy Efficiency Contractor Training Grants

To award grants to States under the State Energy Program to train and educate contractors involved in the installation of home energy efficiency and electrification improvements.

**\$200M**



## High Efficiency Electric Home Rebate Program

To award grants to State Energy Offices and Indian tribes for qualified electrification project rebates in low- or moderate-income households.

**\$4.5B**



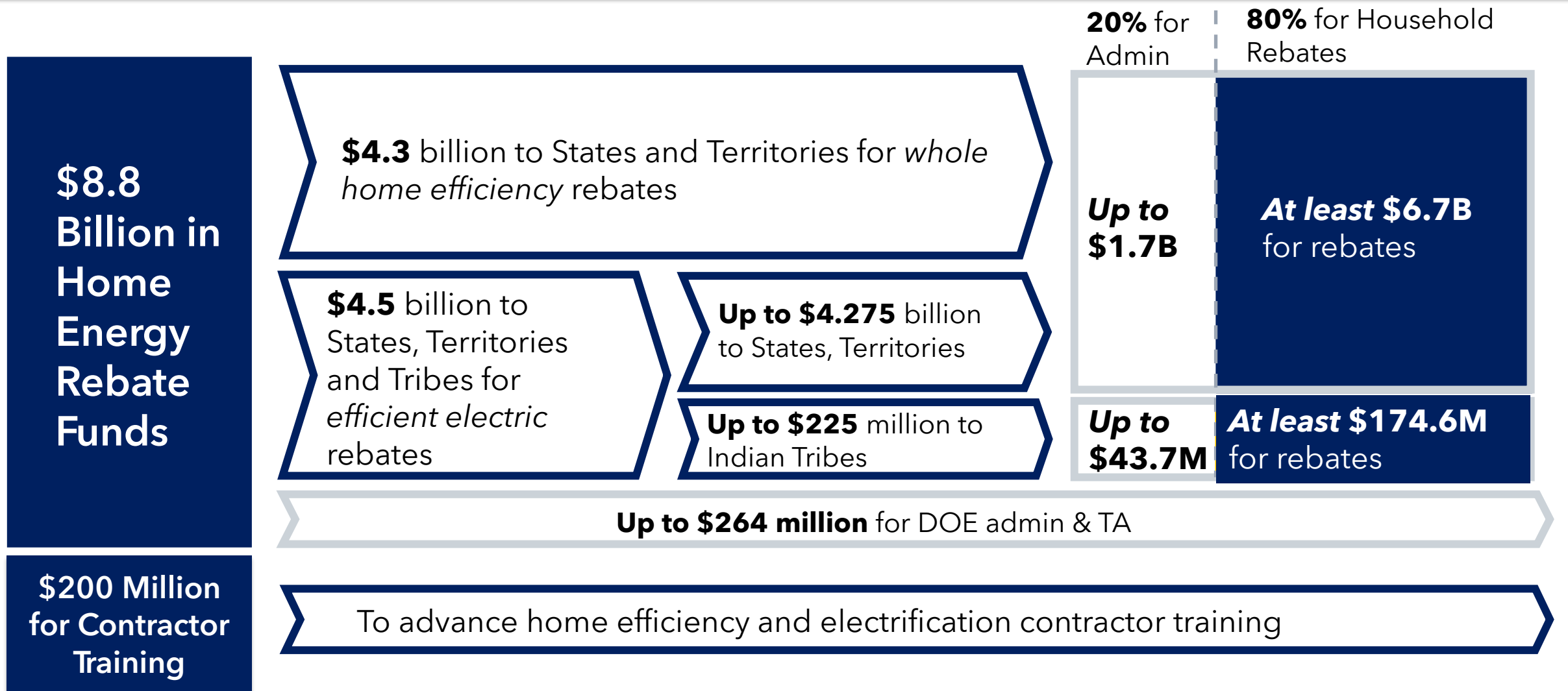
## Building Codes Adoption Grants

To award grants to states & local governments to adopt the latest building codes or the zero energy provisions or other stretch codes for residential and commercial buildings and implement a plan to achieve full compliance with these code(s).

**\$1B**



# Quick Recap - IRA Rebate Programs Funding Overview



The law authorizes 3% of total funds for DOE program administration & technical assistance as well as up to 20% of State & Indian Tribe funds for program administration.

**Available thru  
September 30, 2031**

# Quick Recap: Home Efficiency Rebates

- Rebates vary with the energy savings from the household improvements.
- A wide range of energy-saving upgrades can be included.
- Low-income\* households can access up to \$8,000, while other households can access up to \$4,000.

## LOW-INCOME HOUSING\*

- Projects with energy savings between 20% and 35%:
  - ✓ **80%** of costs up to **\$4,000** per home or housing unit
- Projects with energy savings greater than 35%:
  - ✓ **80%** of costs up to **\$8,000** per home or housing unit

## MARKET RATE HOUSING

- Projects with energy savings between 20% and 35%:
  - ✓ **50%** of costs up to **\$2,000** per home or housing unit
  - ✓ **\$200,000** cap for multifamily building
- Projects with energy savings greater than 35%:
  - ✓ **50%** of costs up to **\$4,000** per home or housing unit
  - ✓ **\$400,000** cap for multifamily building

\* Low income is defined as single family households with incomes less than 80% area median income, as well as multifamily housing with more than 50% of households having incomes less than 80% area median income.

# Quick Recap: Home Electrification & Appliance Rebates

Rebates provide low- and moderate-income families ONLY up to \$14,000 total for products like electric heat pumps, electric stoves, and more.

- ✓ More than 70 percent of U.S. households are eligible for these rebates.
- ✓ Rebates cover up to 100% of costs for low-income households\*
- ✓ Rebates cover up to 50% of costs for moderate-income households\*
- ✓ Rebates cannot exceed the caps listed in the table.

Rebate Type	Equipment/Service	Maximum Rebate \$ Amount
Appliance Upgrades	Heat Pump Water Heater	\$1,750
	Heat Pump for Space Heating or Cooling	\$8,000
	Electric Stove, Cooktop, Range, Oven, or	\$840
	Electric Heat Pump Clothes Dryer	\$840
Non-appliance Upgrades	Electric Load Service Center Upgrade	\$4,000
	Insulation, Air Sealing, and Ventilation	\$1,600
	Electric Wiring	\$2,500
<b>Maximum total across all upgrades per home or unit</b>		<b>\$14,000</b>



\*Low-income household defined as below 80% of area median income; moderate-income defined as between 80% and 150% of area median income.

# Potentially Eligible Equipment & Housing Types



IRA authorizes some type of Home Energy Rebate for the following technologies and housing types



Electric Heat Pump Clothes Dryer



Electric Heat Pump for Heat & A/C



Electric Heat Pump Water Heaters



Whole Home Air Sealing



Duct Sealing & Insulation



& Potentially Other Energy-Saving Technology!




Attic, Wall, or Foundation Insulation



Ventilation Systems



Smart, Energy-Saving Technology



Electric Panel & Wiring Upgrades



Electric Stove, Cooktop, Range, Oven



Single-Family Homes & Multifamily Buildings



New Construction & Existing Housing Units



Owner-Occupied & Rental Properties

# What are Virtual Power Plants

A VPP is a large-scale aggregation of DERs that are controllable to function the same as a natural gas peaker plant for central battery system. In a VPP, multiple non-co-located assets are scaled into a holistic demand-side and/or supply-side utility-grade resource

## VPPs Uniquely Support Administration Priorities.

- ✓ **Catalyze Large-scale Deployment of Clean Energy Technologies** – PV, storage, EV charging, demand flexibility.
- ✓ **Reduction of GHG** – Groups of grid-interactive efficient buildings (GEBs) and Connected Communities can achieve more than the sum of individual buildings (residential and/or commercial).
- ✓ **Energy Equity** – Expands clean energy financing options for lower-income / lower-credit families and communities, provides compensation to households and businesses for services rendered, reduces energy burdens, reduces ambient emissions

THE WAY ELECTRICITY IS GENERATED AND CONSUMED IN THE U.S. IS QUICKLY CHANGING



Urgency to decarbonize buildings and electricity grid



Increasing: deployment of variable energy resources, and efficiency



Increasing electrification of vehicles and buildings



Need to modernize fragile electricity system infrastructure



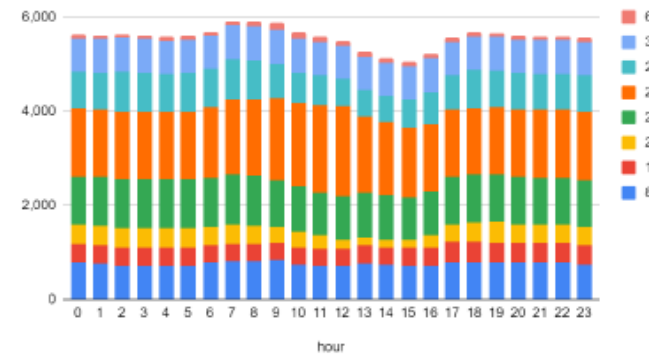
Need to expand access, meet customer needs, and save money

The opportunity for buildings/vehicles-to-grid: integrate efficiency/demand flexibility and other DERs to benefit owners, occupants and the grid.

# Real World VPPs

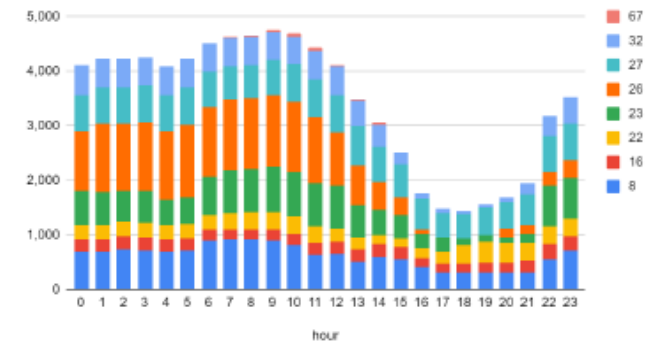
- Thermostats in [California](#) and now TX & NY
- Solar plus storage neighborhoods in [California](#), [Utah](#)
- Utility VPPs [California](#) and [Vermont](#) with GMP
- [Pearl X Flexifornia](#) and [Sunnova PG&E Adaptive Homes](#), [Sunrun](#) and [Sunpower](#)
- Swell VPPs in [Hawaii](#), [California](#), [NY](#), etc.
- [Vehicle to Grid \(V2G\)](#) such as [Highland Electric / Voltus Montgomery County school bus VPP](#), [Zum / Autogrid school bus VPP](#), [Ford F150 V2G VPP Pilot with Duke Energy](#), [Revel e-moped VPP](#) and [Nuvve](#)

2021 Usage x Hr



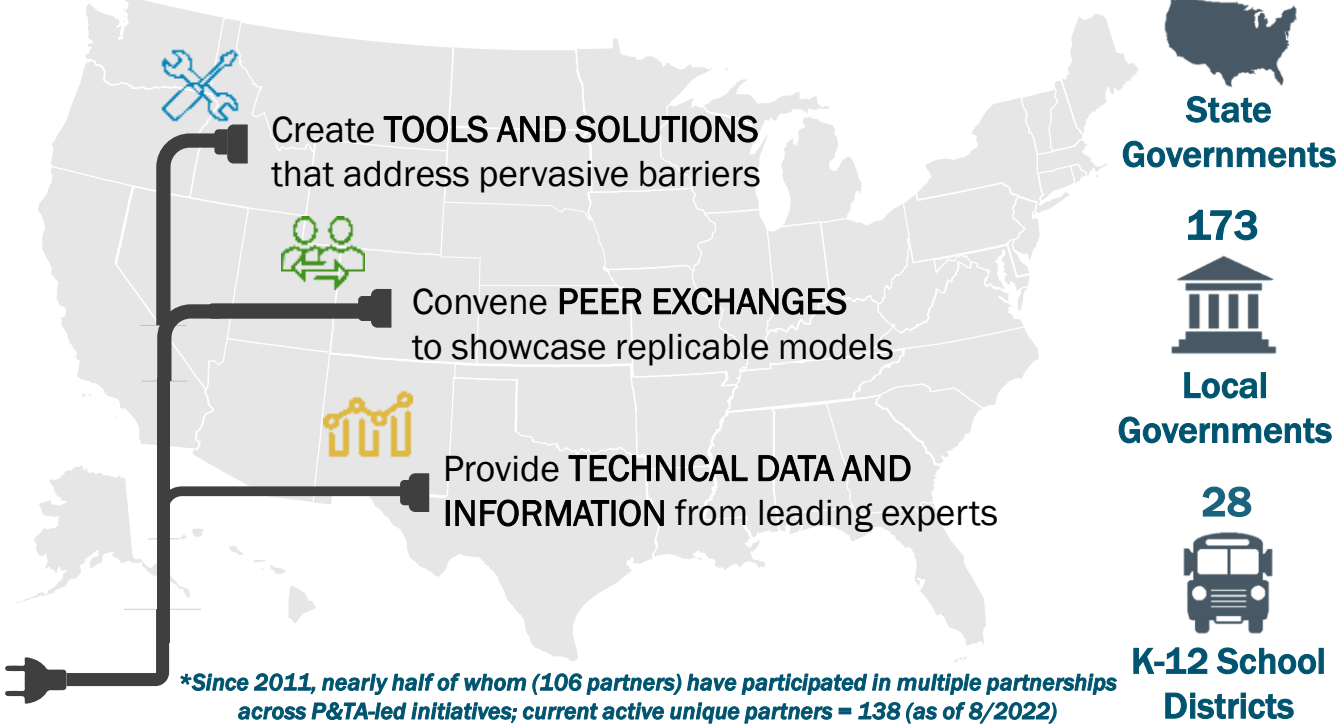
Example of daily load-shifting from Polaris Energy Services and Valley Clean Energy in California.

2022 Usage x Hr



# Technical Assistance & Partnerships (TAP)

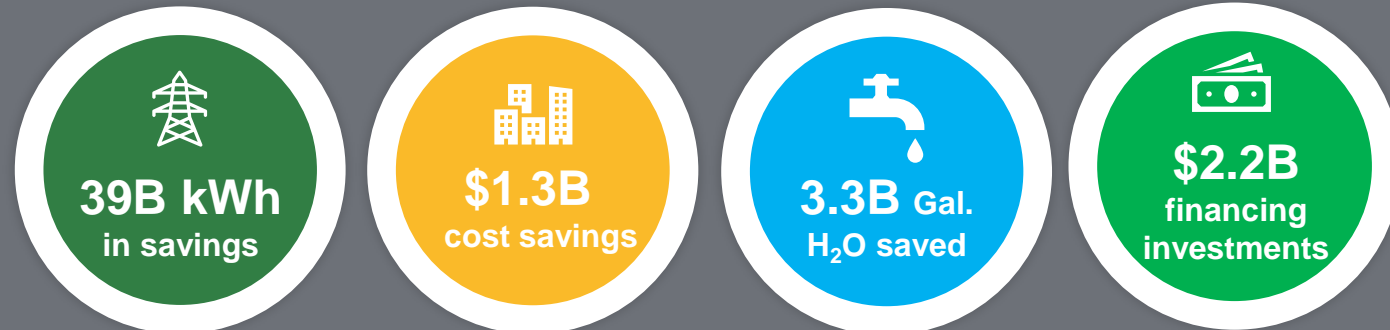
**239+ Unique State, Local, and K-12 Partners\***



## TA Solution Pathways



## Cumulative Outcomes Since 2011



## Current Major Initiatives

Better Buildings Challenge & Better Climate Challenge (public sector) • Energy Savings Performance Contracting (ESPC) Campaign (forthcoming) • Sustainable Corrections Infrastructure Partnership (SCIP) Accelerator • Sustainable Wastewater of the Future (SWIFt) Initiative

## Key Tools

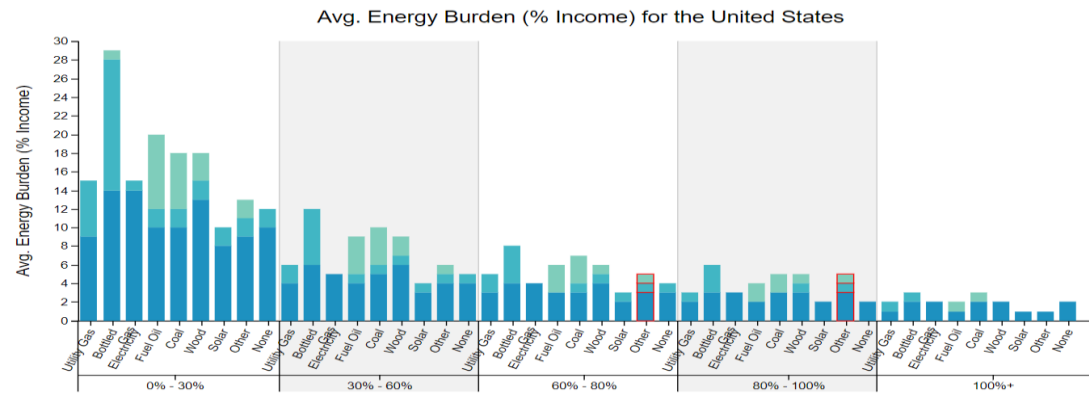
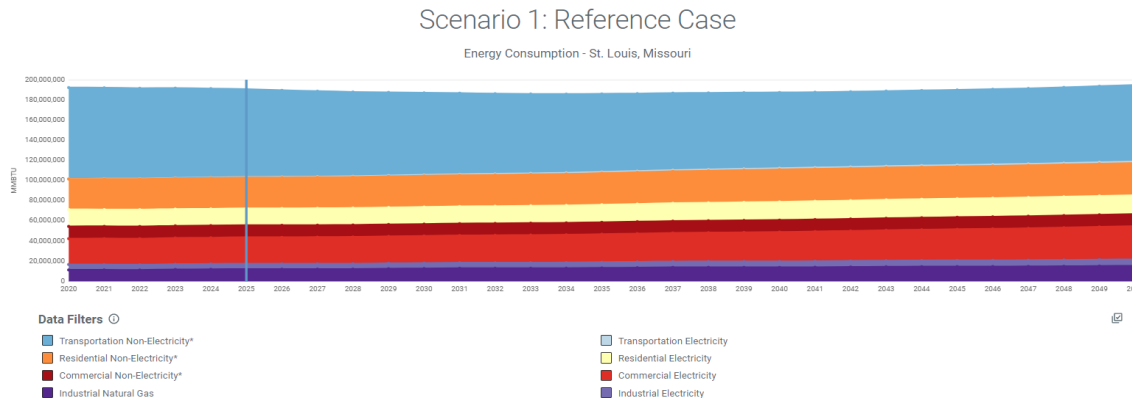
LEAD TOOL  
Low-Income Energy Affordability Data (LEAD) Tool  
State and Local Planning for Energy (SLOPE) Platform

## Outreach & Resources

**State and Local Spotlight:** Monthly newsletter to 33,000+ subscribers  
**State and Local Solution Center:** Over 400 tools, resources, and best practices

# Spotlight on Popular Tools

## Two Powerful Tools to Support State and Local Governments' Planning Needs



1

### State and Local Planning for Energy (SLOPE) Platform

SLOPE integrates over 50 leading data sources to enable users to explore untapped energy savings opportunities and identify the most cost-effective strategies to meet their clean energy and climate goals.

2

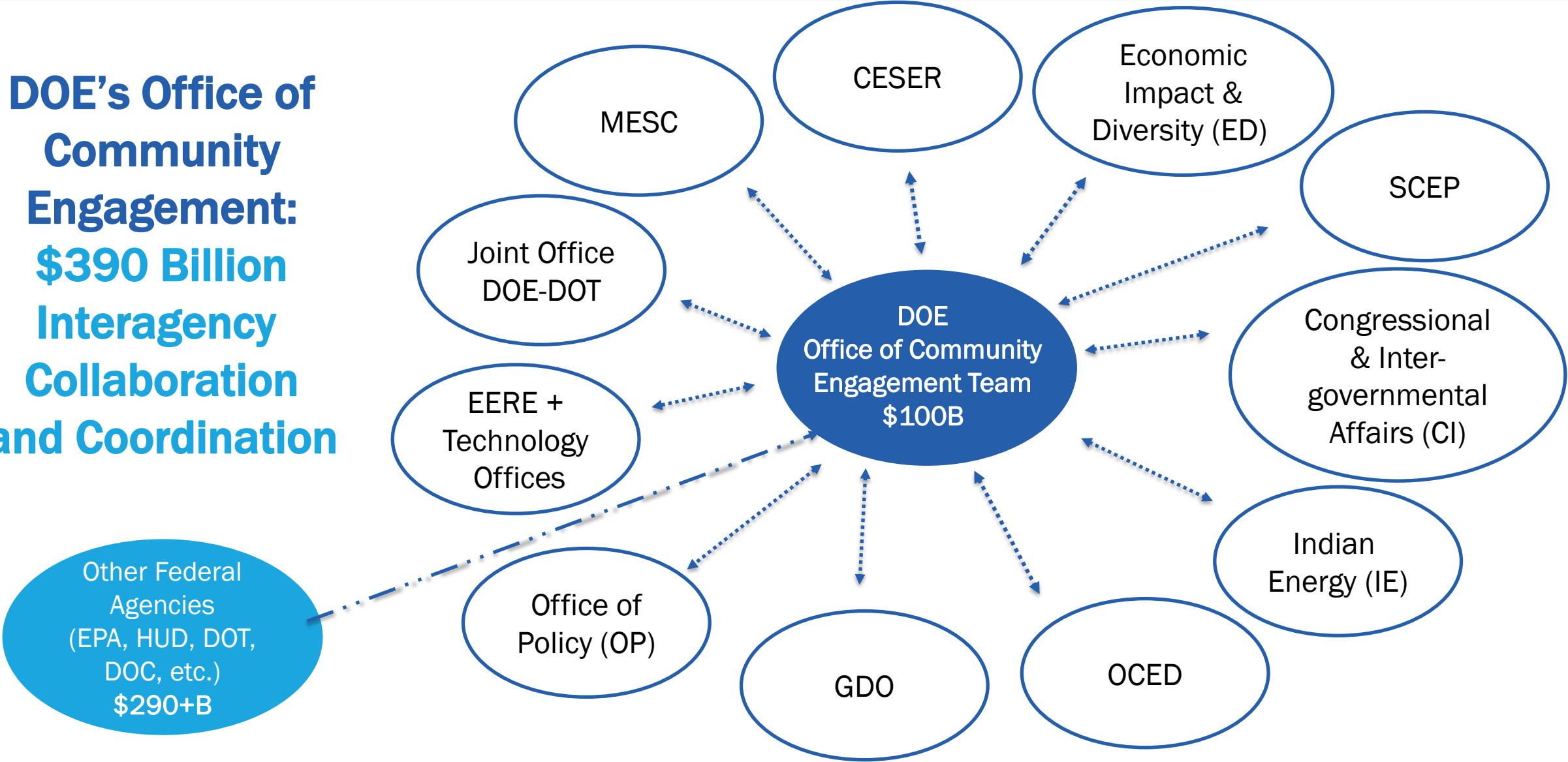
### Low-Income Energy Affordability Data (LEAD) Tool

A web-based interactive tool that enables stakeholders to visualize energy burden and housing characteristics across the U.S. Provides customizable data, maps, and charts available at the national, state, city, and census tract level for all 50 states plus Puerto Rico and Washington, D.C.



# DOE Community Engagement Hub-and-Spoke Model: Managed/staffed by SCEP..owned by ALL

**DOE's Office of Community Engagement:**  
**\$390 Billion**  
**Interagency**  
**Collaboration**  
**and Coordination**



# Energy Communities IWG

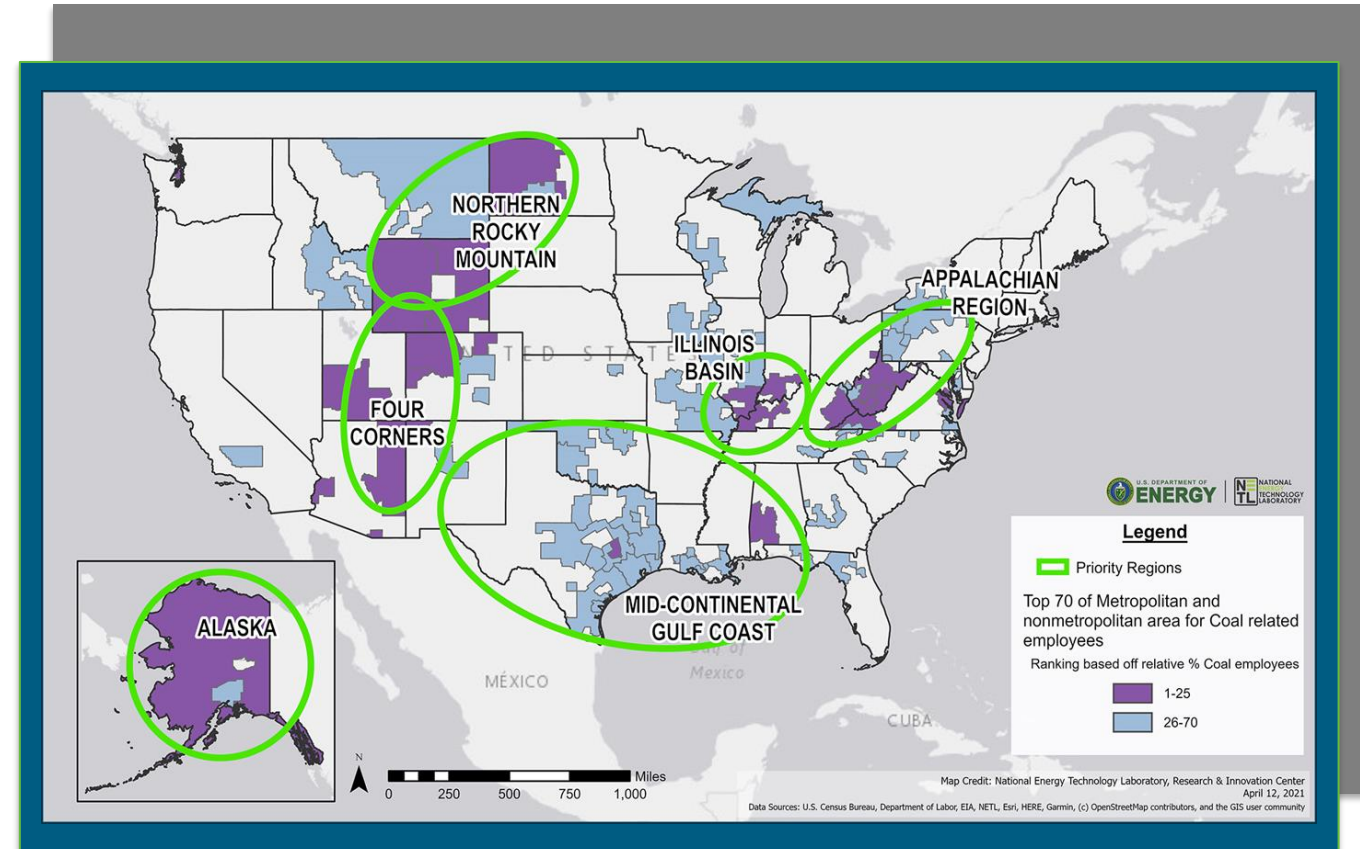
## The Interagency Working Group on Coal & Power Plant Communities

### Initial Report (April 2021)

1. Identified 25 priority Energy Communities
2. Coal communities identified as immediately challenged due to past and imminent closures
3. Planned expansion to oil & gas communities

Established a "Clearinghouse" for funding and other opportunities:  
[energycommunities.gov](https://energycommunities.gov)

“Rapid Response Teams” launched 2022



# Stay Connected

Visit [energy.gov/bil](https://energy.gov/bil) for announcements and sign up for Bipartisan Infrastructure Law email updates.

### Email Updates

To receive the latest news and updates about the BIL programs at DOE, submit your e-mail address.

Visit [energy.gov/scep/slsc/all-state-local-solution-center-resources](https://energy.gov/scep/slsc/all-state-local-solution-center-resources) for state and local TA resources from SCEP, as well as the Spotlight newsletter.

WHAT ARE YOU TRYING TO ACCOMPLISH? -

- Develop Plans and Programs
- Empower Organizations
- Establish Financing
- Implement Data Management

Showing 1 to 10 of 485 entries

Search:

**RESOURCE**

[Standard Energy Efficiency Data Platform \(SEED\) Platform](#)  
The Standard Energy Efficiency Data Platform (SEED) Platform is an open-source software application designed to manage building performance data (such as required by a benchmarking ordinance) which can be costly and time consuming for states, local governments, and other organizations. SEED helps users combine data from multiple sources, clean and validate it, and generate queries and reports.


Sign up to receive SCEP's monthly **State and Local Spotlight** newsletter for detailed information.

Office of STATE AND COMMUNITY ENERGY PROGRAMS

### \$4.5 Million in Awards Available for Energy Efficiency Upgrades in Public Schools

DOE Office of State and Community Energy Programs sent this bulletin at 02/24/2023 11:17 AM EST

Having trouble viewing this email? [View it as a Web page.](#) | [SHARE](#)




## State & Local Spotlight

February 23, 2023

### News

#### \$4.5 Million in Awards Available for Energy Efficiency Capacity Building in Public Schools



Calling all local education agencies to apply for the U.S. Department of Energy's (DOE) Energy CLASS Prize. Through this prize, energy managers will receive training on ways to identify, plan, and implement energy upgrades in school facilities so students can learn in comfortable, healthy classrooms.

Watch a recording of the Energy CLASS Prize Office Hours for answers to common questions including what is required of a full application, eligibility rules, and upcoming deadlines.



# SCEP

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