



**EESI**

Environmental and  
Energy Study Institute

**Materials will be available at:**

[www.eesi.org/030923camp](http://www.eesi.org/030923camp)

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**Congressional Climate Camp:  
Implementing the *Inflation  
Reduction Act* and *Infrastructure  
Investment and Jobs Act***

Thursday, March 09, 2023

# About EESI



## **Non-partisan Educational Resources for Policymakers**

A bipartisan Congressional caucus founded EESI in 1984 to provide non-partisan information on environmental, energy, and climate policies

## **Direct Assistance for Equitable and Inclusive Financing Program**

In addition to a full portfolio of federal policy work, EESI provides direct assistance to utilities to develop “on-bill financing” programs

## **Commitment to Diversity, Equity, Inclusion, and Justice**

We recognize that systemic barriers impede fair environmental, energy, and climate policies and limit the full participation of Black, Indigenous, people of color, and legacy and frontline communities in decision-making

## **Sustainable Solutions**

*Our mission is to advance science-based solutions for climate change, energy, and environmental challenges in order to achieve our vision of a sustainable, resilient, and equitable world.*

# Polycymaker Education

## Briefings and Webcasts



Live, in-person and online public briefings, archived webcasts, and written summaries

## Climate Change Solutions



Bi-weekly newsletter with everything policymakers and concerned citizens need to know, including a legislation and hearings tracker

## Fact Sheets and Issue Briefs

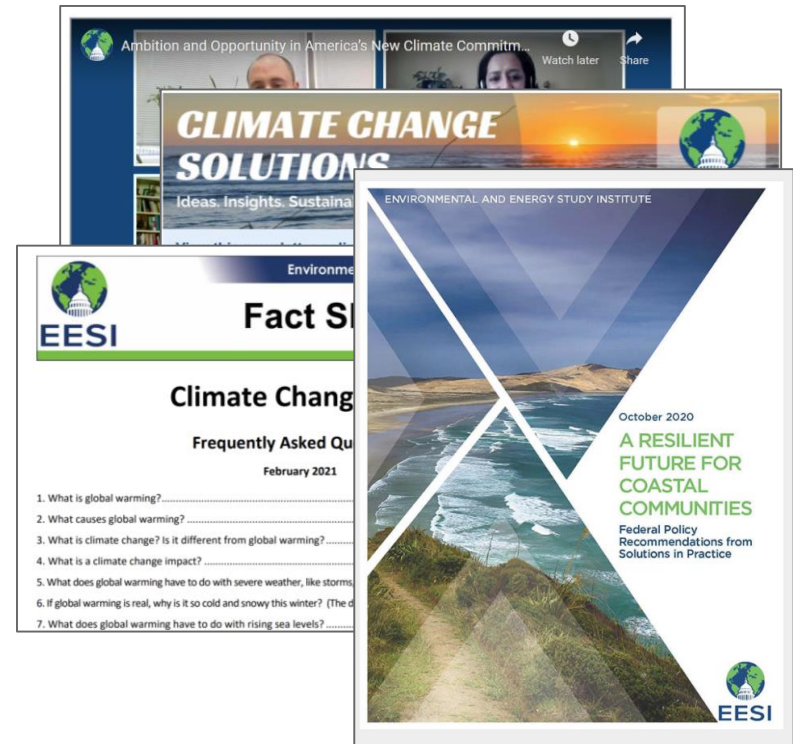


Timely, objective coverage of environmental, clean energy, and climate change topics

## Social Media (@EESIOnline)



Active engagement on Twitter, Facebook, LinkedIn, and YouTube



Upcoming Briefings in this Series



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# Congressional Climate Camp

4

**Budget and Appropriations | Thursday, January 26, 2-3:30 PM**

**Public Polling on Climate Change | Thursday, February 9, 2-3:30 PM**

**Non-CO2 Greenhouse Gases | Thursday, February 23, 2-3:30 PM**

**Implementing the *Inflation Reduction Act* and *Infrastructure Investment and Jobs Act* | Thursday, March 9, 2-3:30 PM**

**Briefing RSVP here: [eesi.org/2023cc](https://eesi.org/2023cc)**



# SCEP

STATE & COMMUNITY ENERGY PROGRAMS

## Introduction to the Office of State and Community Energy Programs

U.S. Department of Energy

Dr. Henry McKoy, Director

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"Implementing the Inflation Reduction Act and Infrastructure Investment  
and Jobs Act" Briefing Series  
Environmental and Energy Study Institute  
Rayburn House Office Building, Washington DC  
March 9, 2023



The Office of State and Community Energy Programs (SCEP) is part of a concerted effort at the U.S. Department of Energy to expand the capabilities of states, local, and tribal communities to bring to life high-impact, self sustaining clean energy transformations.

# About the Office of the Under Secretary for Infrastructure

- New office created February 2022
- Received approximately 90% of the BIL/IIJA and IRA funding
- Responsible for coordinating all DOE infrastructure implementation activities
- The Office of State and Community Energy Programs (SCEP) is part of this organization





# Mission

Catalyzing the nation's equitable transition to a clean, secure, affordable, and resilient energy system



Lowering energy bills for households and businesses



Creating good jobs and boosting energy supply chains and domestic manufacturing



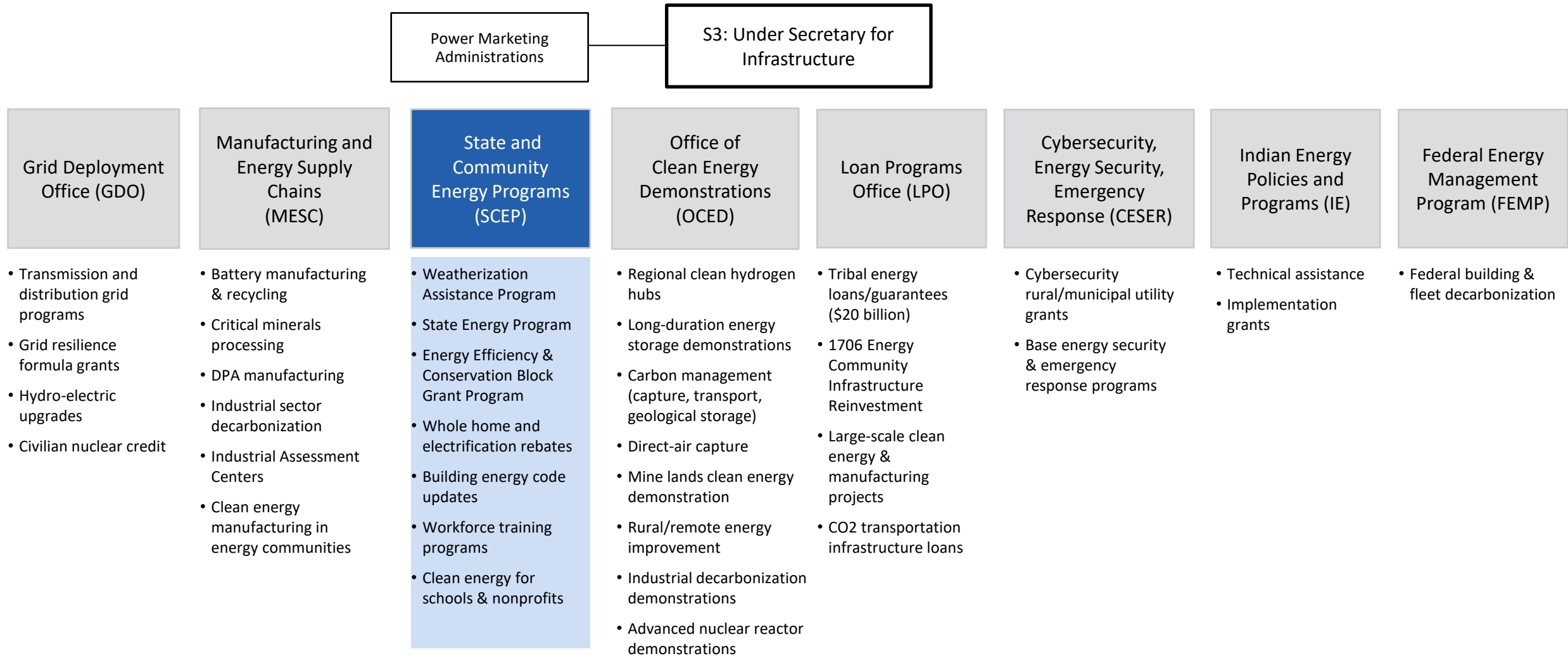
Advancing world-class, next-generation clean energy technology demonstrations



Making the energy system more secure, reliable, and resilient



# The Office of the Under Secretary for Infrastructure



SCEP's Mission and Strategic Priorities are carried out through a place-based approach.

# SCEP's Strategic Priorities

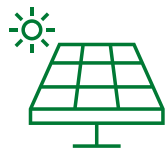
## Whole Greater Than Sum of its Parts

SCEP extends the capacity and capabilities of states, tribes, local governments, schools, and community-serving organizations to implement high-impact, self-sustaining clean energy projects that center the needs of low-income and disadvantaged communities.

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  
hiring**



**Avoid pollution  
through place-based  
strategies**



**Reduce energy  
costs**

# Intentional Foresight

- **Whole community approach** – Energy programs are an asset to our country and critical to a clean, sustainable, and equitable energy future.
- **Connecting cross-sector collaboration** – Encouraging partnership and cooperatives in deployment.
- **Thoughtful approach to engaging communities** – Meeting communities where they are, using creative funding mechanisms like prizes and vouchers.
- **Reducing administrative burden of applying** – Working to simplify application process, providing blueprints for communities.
- **Building blocks for success** – Communicating early and often, addressing demand, providing technical assistance, sharing success stories, connecting sectors, showcasing best practices.

## What are key SCEP programs from IIJA and IRA?

- Weatherization Assistance Program
- State Energy Program
- Home Energy Rebates Program
- Energy Efficiency and Conservation Block Grant
- Energy Efficiency Revolving Loan Fund Capitalization Grant Program
- Building Training and Assessment Centers
- Career Skills Training
- Grants for Energy Efficiency at Public Schools
- Energy Efficiency Materials Pilot Program

# 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>



# Inflation Reduction Act Provisions (\$10 billion)



## Home Efficiency 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 Electrification and Appliance Rebate (HEAR)

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

**\$4.5B**



## Training for Residential Energy Contractors (TREC)

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**



## Adoption Assistance for Building Energy Codes and Appliance Standards

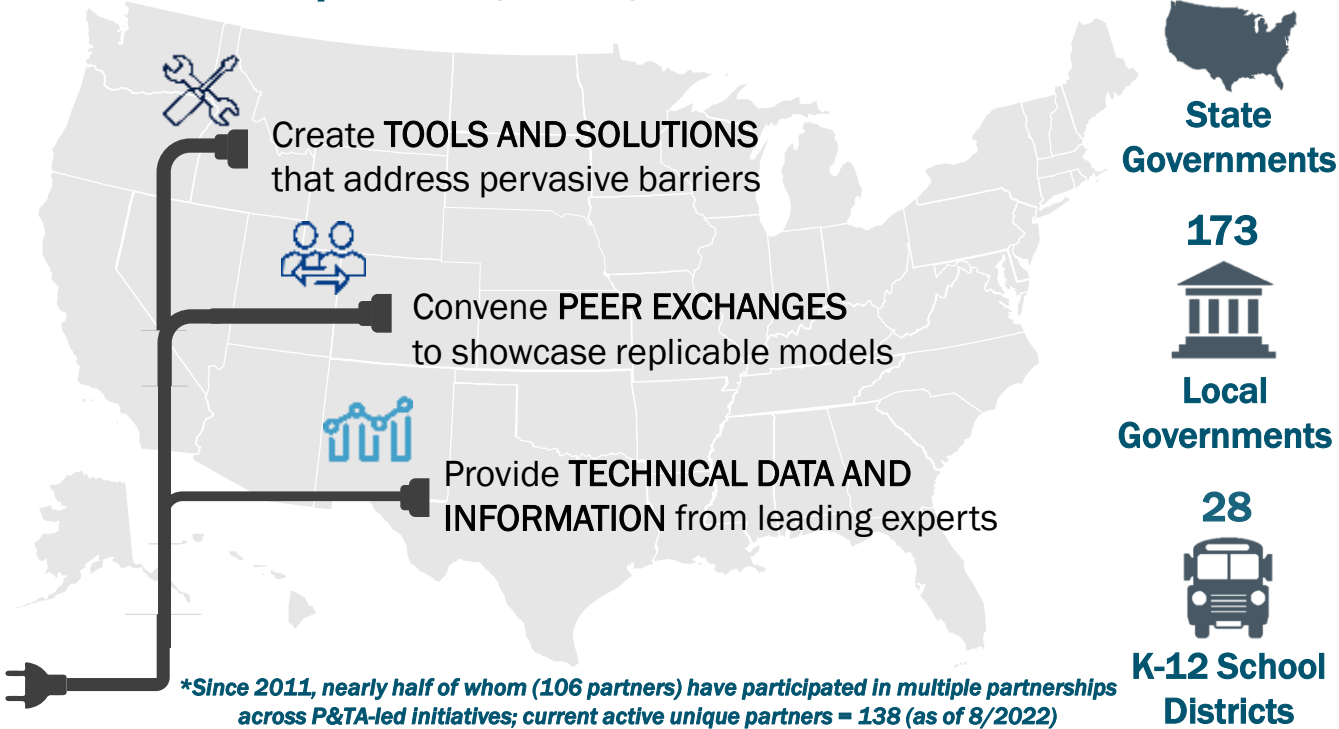
To award grants to states & local governments to adopt the latest building codes or the zero energy provisions or other stretch codes for residential and commercial buildings and implement a plan to achieve full compliance with these code(s).

**\$1B**



# Technical Assistance & Partnerships (TAP)

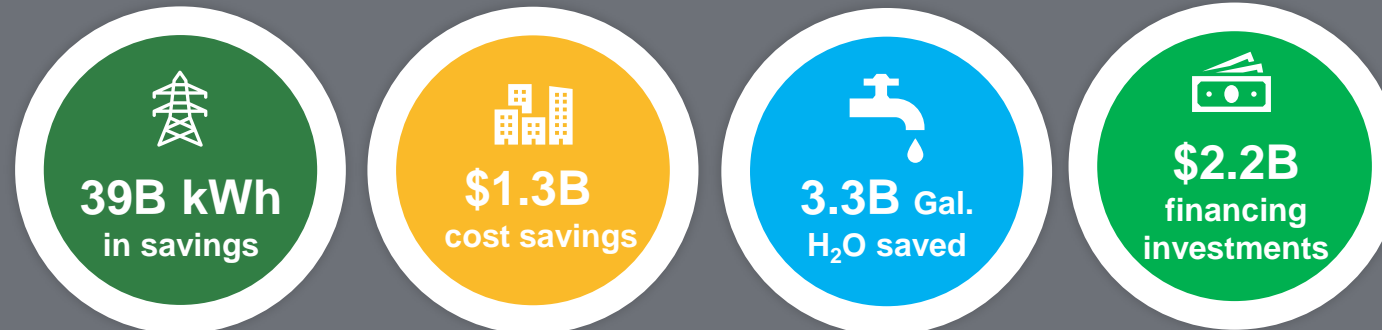
**239+ Unique State, Local, and K-12 Partners\***



## 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

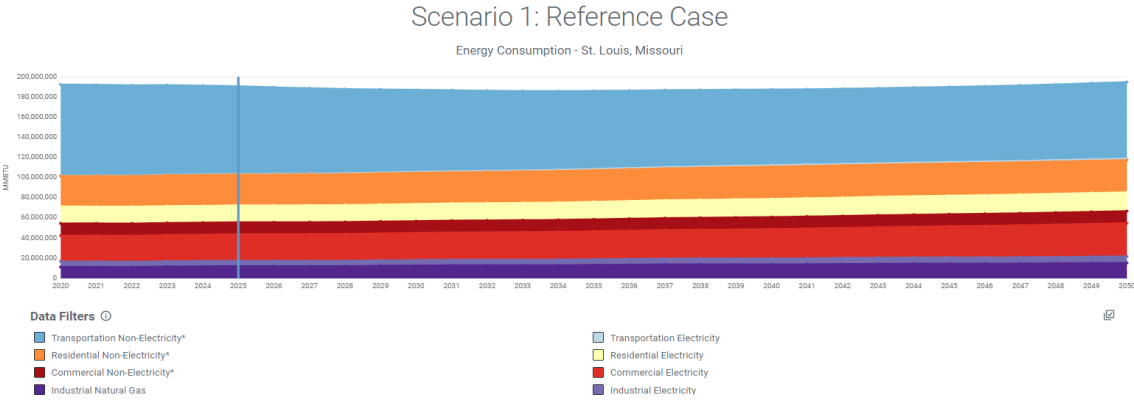
**SLOPE PLATFORM**  
State and Local Planning for Energy (SLOPE) Platform

## 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

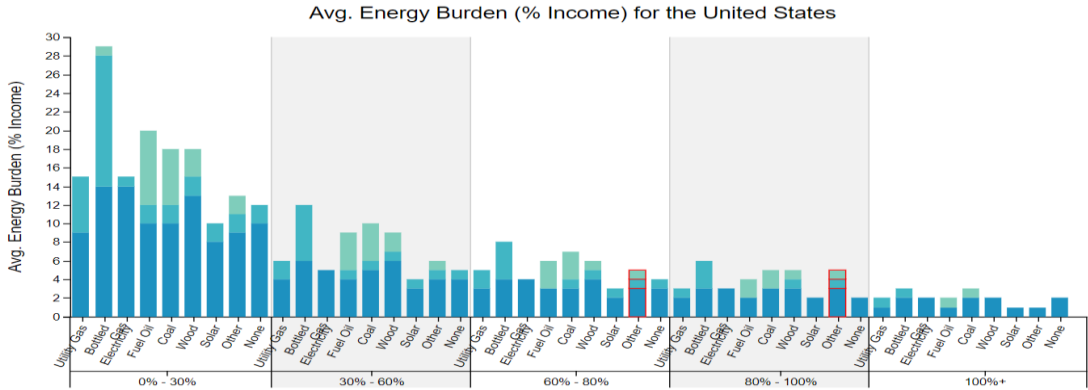
## Two Powerful Tools to Support State and Local Governments' Planning Needs



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.

# Funding Mechanisms Launched to Date

● ALRDs ● RFIs

Weatherization Assistance Program

Issued Administrative and Legal Requirements Document (ALRD) for **\$3.16 billion** formula 3/30/22

Energy Efficiency and Conservation Block Grant (EECBG) Program

Released **\$431.2 million** formula grant ALRD: 1/18/23  
Competitive RFI released 12/14/22

Energy Efficient Materials Pilot Program, Nonprofits

Request for Information (RFI) 11/8/22

State Energy Program

Issued ALRD for **\$425 million** formula grant, 08/22/22

Issued ALRD to enable states to provide up to **\$200,000** toward State Energy Security Plans (SESP) 3/28/22

Home Efficiency and Electrification Rebates

RFI currently out for comment, closes 3/3/23 Tribal consultation process in progress

Renew America's Schools Grant

RFI 4/4/22  
NOI 10/26/22  
FOA 11/29/22

Energy Efficiency Revolving Loan Fund Capitalization Grant Program

Issued ALRD for **\$242 million** 11/15/22

Workforce Development Programs

RFI closed 1/26/23 and received 75 responses

Communities Local Energy Action Program (LEAP)

24 inaugural communities selected to participate in LEAP pilot

## What are the benefits of IJA and IRA programs to communities?

- Historic investment in clean energy infrastructure in communities and eligible residential homes.
- Precipitate the creation of jobs and workforce development programs to bring more workers into the labor force.
- Holistic approach to community investment focused on mutually respected relationships, not transactional.
- Helping to create more wealth in historically disadvantaged communities.
- Creating a system that outlasts our time here.

# Home Energy Rebate Provisions



## Home Energy Rebates

SEC. 50121 & 50122

**Amount:** \$8.8 billion

**Through:** September 30, 2031

**Recipient:** State Energy Offices and tribes

**Goal: Develop, implement, and subsidize residential energy efficiency and electrification projects in U.S. households.**

Funding available to:

- Provide rebates to households, contractors, and others.
- Determine eligibility of households for rebates based on income.
- Work with trusted contractors and retailers to streamline rebate processing for households.
- Verify quality installation and document home upgrades.
- Help households bundle funds and financing to further reduce upfront costs.
- Note: Funding guidance and admin funds coming soon.



# Energy Efficiency & Conservation Block Grant (EECBG) Program

**\$550M**

*To states, local governments,  
and tribes.*

Formula and competitive grant program for state, local, and tribal governments to **implement strategies to reduce fossil fuel emissions, reduce total energy use, and improve energy efficiency**

## Grant Eligibility

### Formula Grants (\$431.2M)

- 50 states, 5 territories, and the **District of Columbia**.
- **2,708** local governments & **774** Indian tribes.

### Competitive Grants (\$8.8M)

- All other local governments & state-recognized tribes, will open in winter/spring of 2023

## Key Grant Requirements

- States must **subgrant at least 60%** of their funds to **ineligible local governments** in their state.
- All applicants must submit an **Energy Efficiency and Conservation Strategy (EECS)**.
- Local governments and tribes can opt into **vouchers** for technical assistance and/or equipment rebates.

## Eligible Activity Areas

- **Flexible** funding allows govts. to choose from diverse activities. Ex: Building audits & retrofits, EVs & EV infrastructure, community solar campaigns, renewable energy on government buildings, workforce development.
- Local governments and tribes may apply in **teams**

## Technical Assistance

- Assistance to grantees includes strategy development, Field Fellows, topic-based TA oriented around Blueprints (evidence-based strategies)

## Application Deadlines

- Pre-Award Information Sheet due **April 28, 2023**
- State applications due **July 31, 2023**
- Local and tribal government applications due **Jan. 31, 2024**



# Schools & Nonprofits Program

## Renew America's Schools Grant

- New competitive grant program for energy improvements at public school facilities
- \$500 million (\$100 million per FY 2022-26), until expended
- Individual awards may vary between \$500,000 and \$15 million

## Energy Efficiency Materials Pilot (Nonprofits)

- New competitive grant program for energy improvements at 501 (c)(3) for use in a building they own and operate
- \$50 million, in FY 2022, available until expended
- Each grant not to exceed \$200,000

	Schools Program	Nonprofits Program
Current Funding Opportunities	Schools FOA-0002756 currently open. Concept Papers were due 1/26/23, we received unprecedented demand (more details next slide). Full applications are due 4/21/23.	Currently in program design. Anticipated FOA to release in May 2023.
Future Announcements	First round of FOA awardees to be announced late June 2023.	NOI to be published in April 2023.
Point of Contact	Sarah Zaleski - Sarah.Zaleski@hq.doe.gov	
Staffing Plans	Currently have four FTEs and two fellows. Working to hire two additional FTEs and one Fellow.	
Additional Information	Energy CLASS Prize applications are due 2/28/23.	



## **How is SCEP putting communities first and fulfilling the intent of Justice40 Initiative?**

President Biden's Justice40 Initiative plans to deliver 40% of the overall benefits of climate investments to disadvantaged communities and inform equitable research, development, and deployment within the DOE.

SCEP strives to advance this initiative through intentional practices to ensure states and local communities plan for and measure investments in disadvantaged communities.

# SCEP Strives to Advance DOE's Justice40 Policy Priorities

In disadvantaged communities (DACs), we support programs that:

- Decrease energy burden
- Decrease environmental exposure and burdens
- Increase parity in clean energy technology access and adoption
- Increase access to low-cost capital
- Increase clean energy enterprise creation (Minority/Disadvantaged Business Enterprise)
- Increase clean energy job pipeline and job training for individuals
- Increase energy resiliency
- Increase energy democracy.

**What's the best way to track IRA and IJA implementation?**

# 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

Search:

Showing 1 to 10 of 485 entries

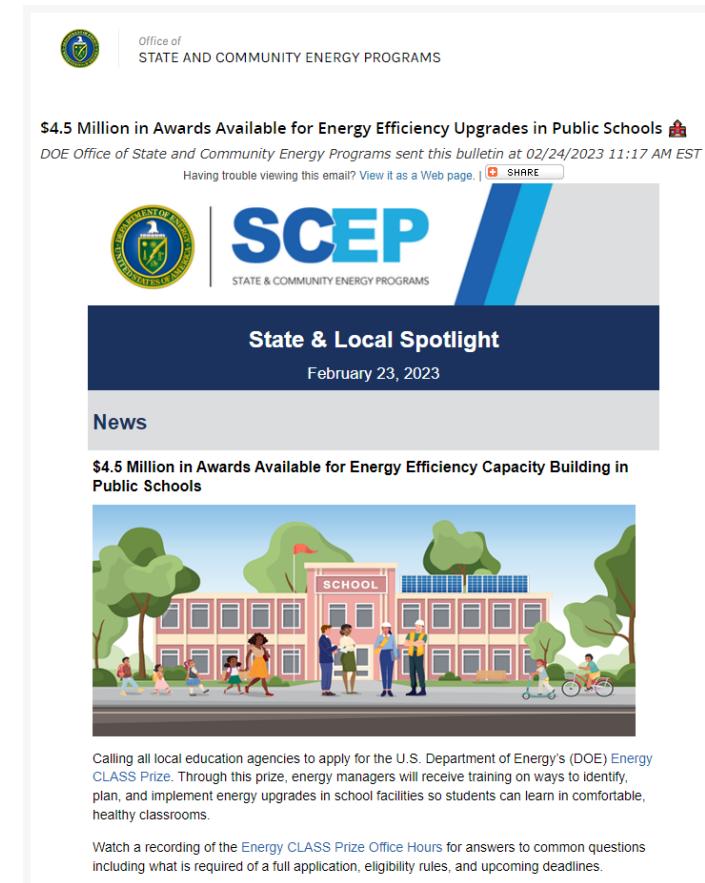
### RESOURCE

#### 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.

[Energy Efficiency and Renewable Energy Resources for State and Local Leaders](#)

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](#)

**SCEP**  
STATE & COMMUNITY ENERGY PROGRAMS

**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.



# Thank you!



Questions or Comments?



**SCEP**  
STATE & COMMUNITY ENERGY PROGRAMS





# Infrastructure Investment and Jobs Act: An Overview

EESI Congressional Climate Camp

March 9, 2023





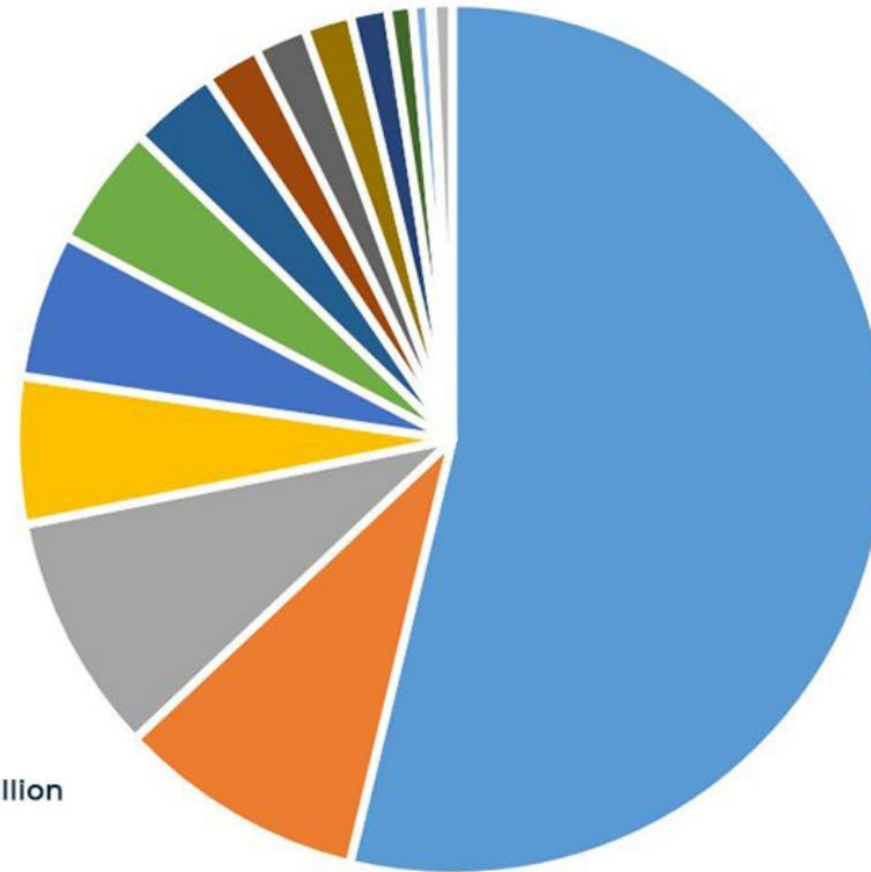
## Overview

1. Introduction to the IJA
2. Transportation Programs
3. Implementation Status



# \$1.2 Trillion for Infrastructure

IJA includes \$550 billion in “new” funding (increase over existing funding)



Source: Government Finance Officers Association

# Unique Characteristics of IIJA

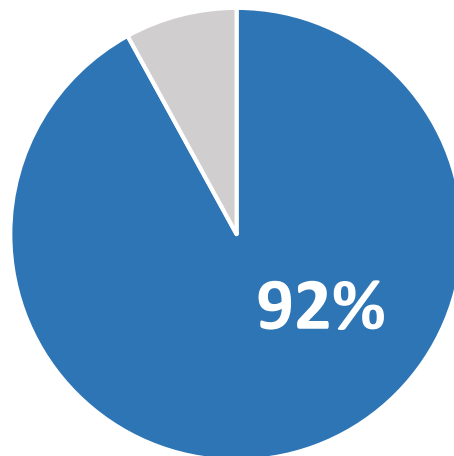
- **Bundles multiple infrastructure sectors together**
  - Congress typically considers transportation, water, etc. in separate legislation
- **Includes both authorizations and appropriations**
  - Typically authorizations and appropriations are done in separate bills
- **Did not move through ordinary legislative process**
  - Did not pass through House and Senate committees
  - No House-Senate conference
  - Instead, negotiated by bipartisan group of 21 Senators and the White House

## **IIJA ultimately passed in November 2021 with bipartisan support**

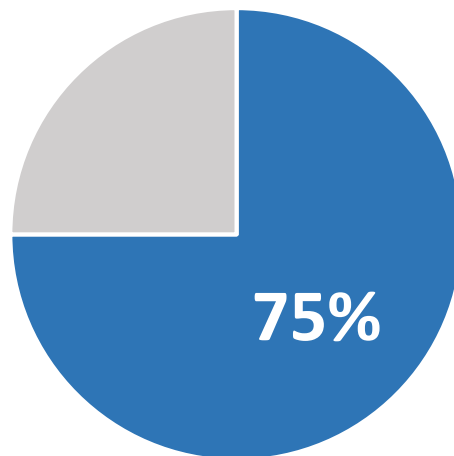
- Senate vote: 69-30
- House vote: 228-206

# More than Half of IIJA Funding Flows by Formula

\$660 billion of IIJA funds flow by formula. Most of that is for transportation.



% of Highway Program Distributed by Formula  
Formula funds controlled by *states*



% of Transit Program Distributed by Formula  
Bulk of formula funding to *local governments* and *transit agencies*

Source: [Congressional Research Service](#)

# IJA Includes >100 Competitive Programs

## Excerpt from BPC's IJA Competitive Grant Tracker

Program	IJA Section	Agency	Total Funding	Eligible Recipients	Eligible Projects	Federal Share	Notes
Electric or Low-Emission Ferries	7102	USDOT	\$250 million	Not specified	Purchase of electric or low-emitting ferries and electrification or emissions reduction from existing ferries	Not specified	
Port Infrastructure Development Program	Division J	USDOT	\$2.25 billion	States, special purpose districts, state-chartered public entities, tribes, etc.	Projects to improve port infrastructure and multimodal connections	80% (may be higher for small and rural ports)	
Natural Gas Distribution Infrastructure Safety and Modernization Grant Program	Division J	USDOT	\$1 billion	Municipality or community owned utility (not including for-profit entities)	Modernization of natural gas pipelines	Not specified	
Airport Terminal Program	Division J	USDOT	\$5 billion	Not specified	Terminal buildings and terminal access projects	80% for large and medium hubs, 95% for small, non-hub, and non-primary airports	
Contract Tower Program	Division J	USDOT	\$100 million	Airports in the contract tower program or contract tower cost-share program	Projects to construct, repair, or relocate nonapproach control towers and for related equipment and construction of remote towers	100%	This is a set-aside within the Airport Infrastructure Grants Program
<b>Drinking Water</b>							
Drinking Water Infrastructure Resilience and Sustainability Program	5004	EPA	\$125 million	Public water systems, tribal water systems, and states serving small, disadvantaged communities	Projects and activities to increase system resilience to natural hazards	90%; 10% non-federal share, can be waived by the Administrator	
Assistance for Small and Disadvantaged Communities	5004	EPA	\$510 million	Public water systems, tribal water systems, and states serving small (10k), disadvantaged communities	Investments to comply with drinking water standards, provide direct household benefits, and water quality testing	90%; 10% non-federal share, can be waived by the Administrator	
Connection to Public Water System Grants	5004	EPA	\$100 million	Utilities and nonprofits	Connect low-income households to a municipal public drinking water system	Not specified	
State Competitive Grants for Underserved Communities	5004	EPA	\$250 million	States	Projects and activities that allow public water systems in small and disadvantaged communities to comply with drinking water standards	Not specified	
Lead in Drinking Water Reduction	5005	EPA	\$500 million	Water systems, nonprofits, states, cities, and other public agencies	Lead reduction projects, including lead service line replacement	80%; 20% non-federal share can be reduced or waived by the Administrator	
Lead Inventorying Utilization Grant Pilot Program	5005	EPA	\$10 million	Municipalities served by water systems with 30% of service lines known or suspected to contain lead	Lead reduction projects, including inventorying service lines containing lead	Not specified	
Operational Sustainability of Small Public Water Systems	5006	EPA	\$250 million	SLTT governments, other public entities, and nonprofits	Projects and activities that ensure operational sustainability for small public water systems	90%; 10% non-federal share, can be waived by the Administrator	

Available at:

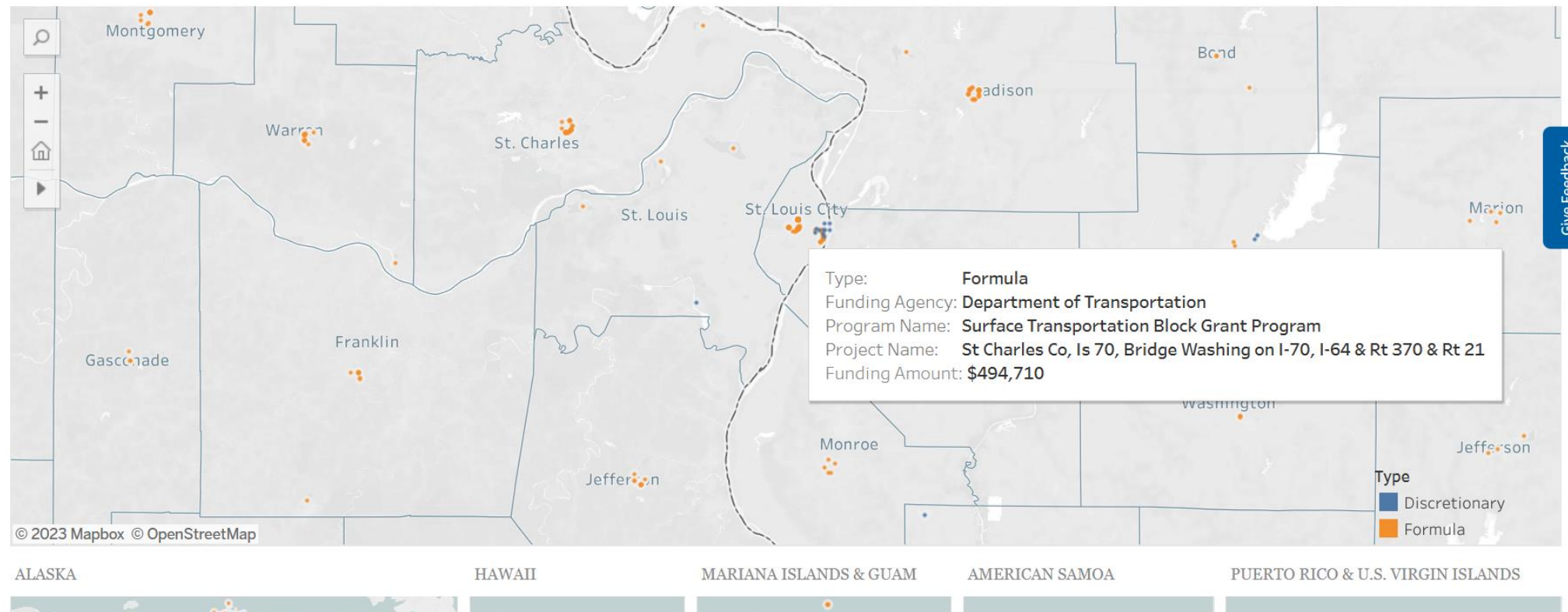
<https://bipartisanpolicy.org/blog/tracking-competitive-grants-in-the-infrastructure-investment-and-jobs-act/>

# \$200 Billion Has Already Been Announced

## ANNOUNCED AND SELECT AWARDED BIL FUNDING LOCATIONS AS OF JANUARY 13, 2023

Type: (All) Program Name: (All) Funding Amount: \$1,037 - \$1,385,000,000

See the impact the Bipartisan Infrastructure Law is having in your community by hovering over the map and using the search bar below!



# Transportation Funding Mostly Goes to State DOTs

## National Highway Performance Program (\$148 billion)

- Expansion and repair of highways and major arterials

## Highway Safety Improvement Program (\$15.5 billion)

- Road safety projects

## *NEW* PROTECT Program (\$7.3 billion)

- Projects to increase resilience of transportation infrastructure

## *NEW* Charging and Fueling Formula Program (\$5 billion)

- EV charging and alternative fueling infrastructure

## Surface Transportation Block Grant Program (\$72 billion)

- Most flexible; 10% set-aside for “transportation alternatives”

## Congestion Mitigation & Air Quality Improvement Program (\$13.2 billion)

- Projects to reduce congestion or emissions, including transit

## *NEW* Carbon Reduction Program (\$6.4 billion)

- Projects to reduce emissions

The three programs above are shared with regional Metropolitan Planning Organizations.



# Which Are the Climate Programs?

## National Highway Performance Program (\$148 billion)

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These four programs are focused specifically on reducing emissions or increasing resilience, but.....



# Which Are the Climate Programs?

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The much larger NHPP and STBGP can also be used for climate-friendly projects, if state DOTs choose to do so.

# State DOTs Have Flexibility in Spending Federal Funds

- Besides road repair and expansion, many “highway” programs can also fund:
  - transit
  - bicycle and pedestrian infrastructure
  - ferries
  - traffic management
  - charging infrastructure
  - road safety improvements
  - resilience projects
  - travel demand management programs

# New Competitive Programs with Climate Focus

Low- and No-Emission  
Buses (\$5.6B)

- Grants to transit providers for purchase of low/no emission transit buses and related infrastructure

Charging and Fueling  
(\$2.5B)

- Grants to states, MPOs, local governments for community charging infrastructure

PROTECT (\$1.4B)

- Grants to states, localities, MPOs, transportation authorities to increase resilience of transportation assets

Reduction of Truck  
Emissions at Ports (\$400M)

- Grants to reduce idling at port facilities

# New Competitive Programs with Possible Climate Impact

National Infrastructure Project Assistance (\$5B)

- Grants to states, localities, MPOs, transportation authorities for large surface transportation projects

Local and Regional Project Assistance (\$7.5B)

- Grants to states, local governments, MPOs, transportation authorities, and transit agencies for any type of surface transportation

Reconnecting Communities (\$1B)

- Grants to remove or retrofit highways that present barriers to connectivity

Safe Streets and Roads for All (\$5B)

- Grants to MPOs, local governments, tribal governments to develop Vision Zero plans and for related projects

Strengthening Mobility and Revolutionizing Transportation (SMART) (\$500M)

- Grants to states, local governments, transit agencies, and tribes for innovative transportation technologies

Congestion Relief (\$250M)

- Grants to states, MPOs, and local governments for projects in large urban areas to reduce congestion and optimize existing highway capacity

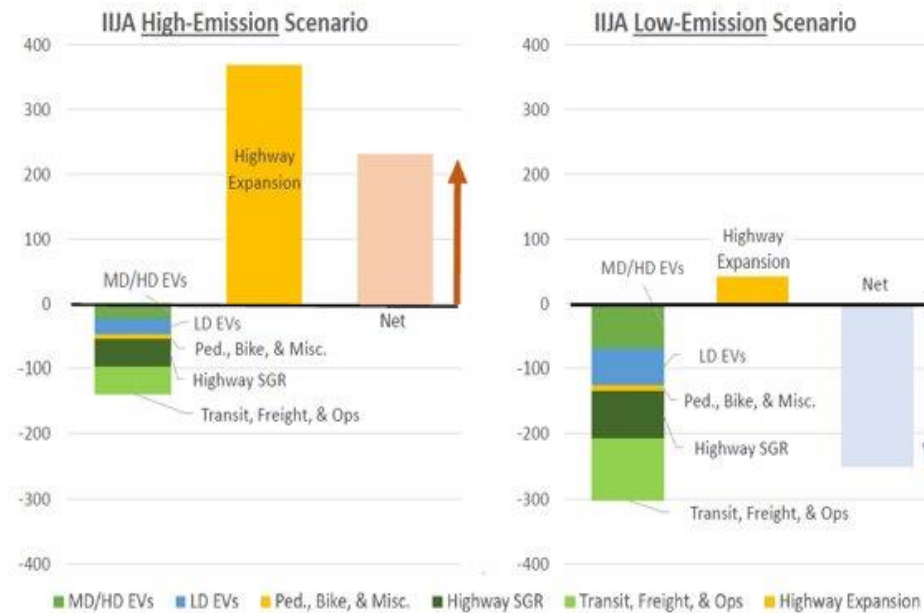
# IIJA Climate Impacts Will Depend on Actual Investments

- The whole surface transportation program will have climate impacts.
- Federal, state, and local decisions about what projects to fund will determine the direction and scale of impacts.

If more IIJA funds go into high-emission projects, GHG will go up



Cumulative MMT of CO<sub>2</sub> Emissions, relative to Baseline GHG, 2022 to 2040



If more IIJA funds go into low-emission projects, GHG will go down





# Status of IIJA Implementation

- **Formula funds have been made available as scheduled.**
- **Many, but not all, competitive programs have been launched. Some are in their second round of applications.**
- **A number of smaller initiatives remain to be launched, such as:**
  - National VMT fee pilot
  - Asset Concession and Innovative Finance Program
  - Updates to *Manual of Uniform Traffic Control Devices* and *Emergency Relief Program Manual*
  - Guidance for new Complete Streets planning set-aside
  - Toll credit exchange program
- **Still, reasonable progress has been made.**

# Implementation Challenges Remain

- **\$1.2 trillion in federal investment (plus local match) will stimulate job growth and economic activity, but IJA impacts will take time to appear**
  - Funds will flow out over 5 years, with project construction lasting even longer.
  - Some projects are ready-to-go, but many still need to be planned and permitted.
- **Near-term risks and challenges**
  - Federal agency staffing limitations
  - State and local government capacity
  - Manufacturing and supply chain limitations
  - Inflationary environment
  - Tight labor market
  - Congressional debate over federal spending
- **If challenges can be overcome, IJA offers potential for real progress on modernizing infrastructure and reducing repair backlogs**

Thank you!



Find more information at [bipartisanpolicy.org/policy-area/infrastructure/](https://bipartisanpolicy.org/policy-area/infrastructure/)

Contact Sarah Kline at [skline@bipartisanpolicy.org](mailto:skline@bipartisanpolicy.org)



# Modeled Effects of the Inflation Reduction Act of 2022

Kevin Rennert

Director, Federal Climate Policy Initiative

EESI Congressional  
Climate Camp

March 9, 2023



# Key Power Sector Provisions from Inflation Reduction Act

- Long-term extensions of production tax credit (PTC) for producing renewable electricity and investment tax credit (ITC) for building clean electricity projects
- Transition to technology-neutral incentive structure, based on emissions rate, after 2024
- Base rate of \$5/MWh (PTC) and 6% (ITC)
- Layered bonus structure includes:
  - 5X bonus for meeting prevailing wage and apprenticeship requirements
  - 10% (PTC) or 10 pp increase (ITC) for projects located in energy communities
  - 10% (PTC) or 10 pp increase (ITC) for projects meeting domestic content criteria





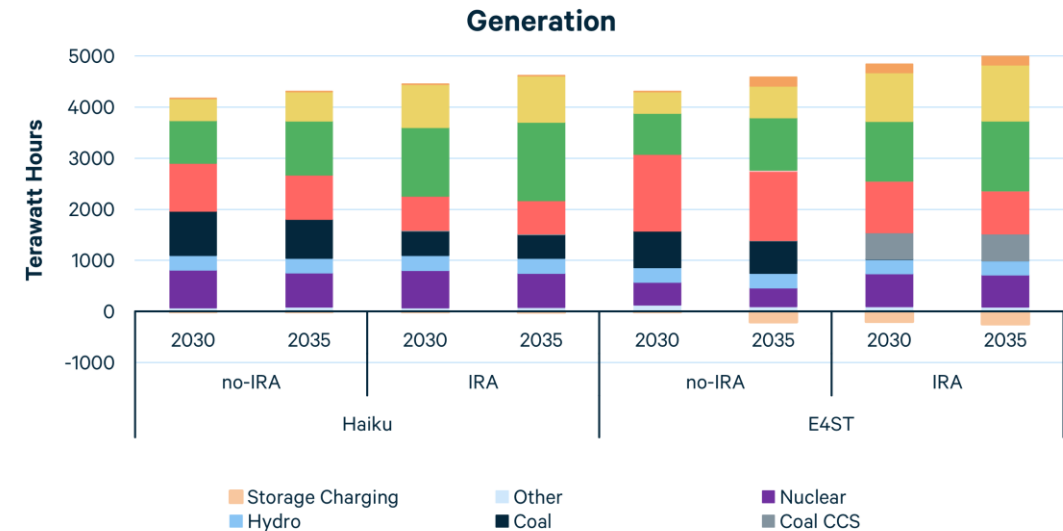
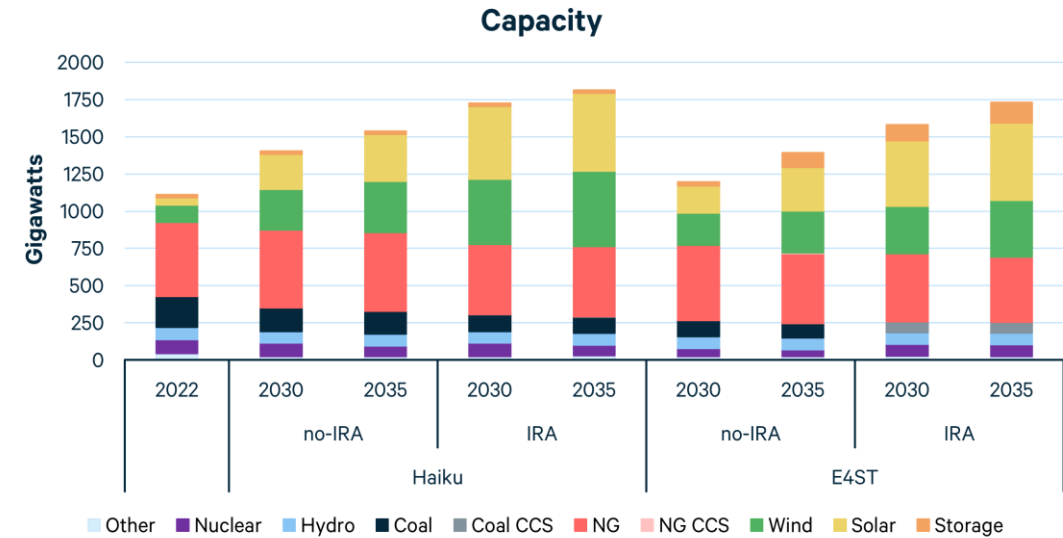
# Key Power Sector Provisions from Inflation Reduction Act

- PTC for existing nuclear generation, tied to market conditions
- 45Q credit for carbon capture increased to \$85/ton
- Direct pay for tax-exempt entities, enhanced transferability of credits for others



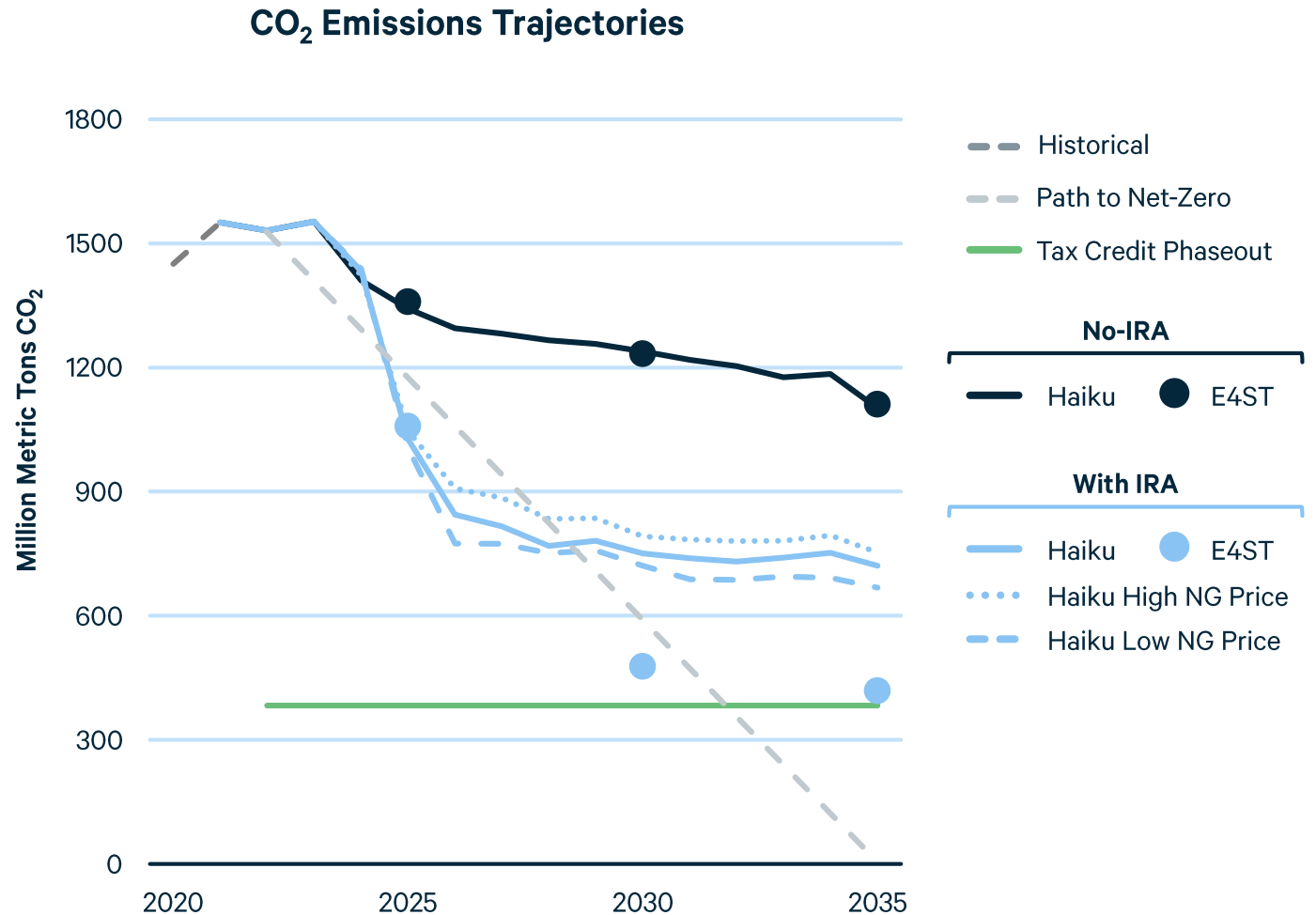
# IRA Tax Incentives Favor New Builds and Use of Renewable and Low-Emitting Capacity

- RFF operates two detailed power sector models: **Haiku** and **E4ST**
- Under the IRA, both models build solar and wind capacity at rates well above historical maxima
- CCS retrofits of coal are projected to be economically viable under 45Q incentives
- E4ST models a higher capacity factor for solar & wind than Haiku



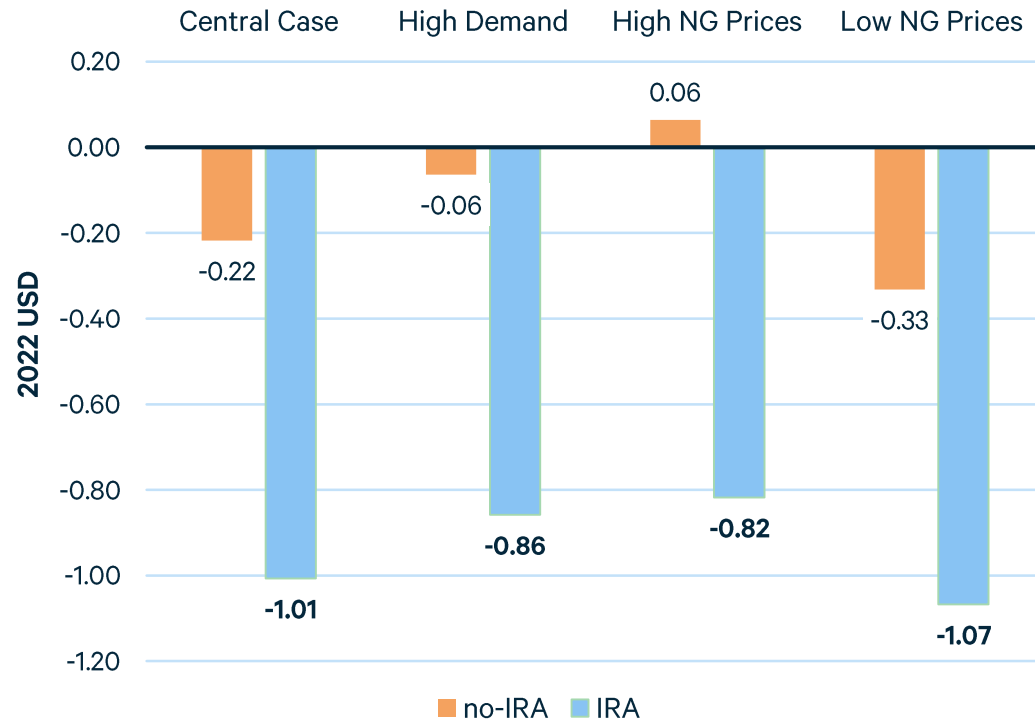
# Projected Power Sector Emissions

- Both models indicate substantial CO<sub>2</sub> reductions compared to No-IRA baseline
- Emissions remain above the threshold for phaseout of the IRA tax credits through 2035, fall short of Biden net-zero goal
- E4ST sees greater emission reductions due to its CCS buildout



# Retail Electricity Prices are Projected to Decline from 2022 Levels

Haiku: Change from 2022 Prices (¢/kWh)  
Decade Average (2023-2032)

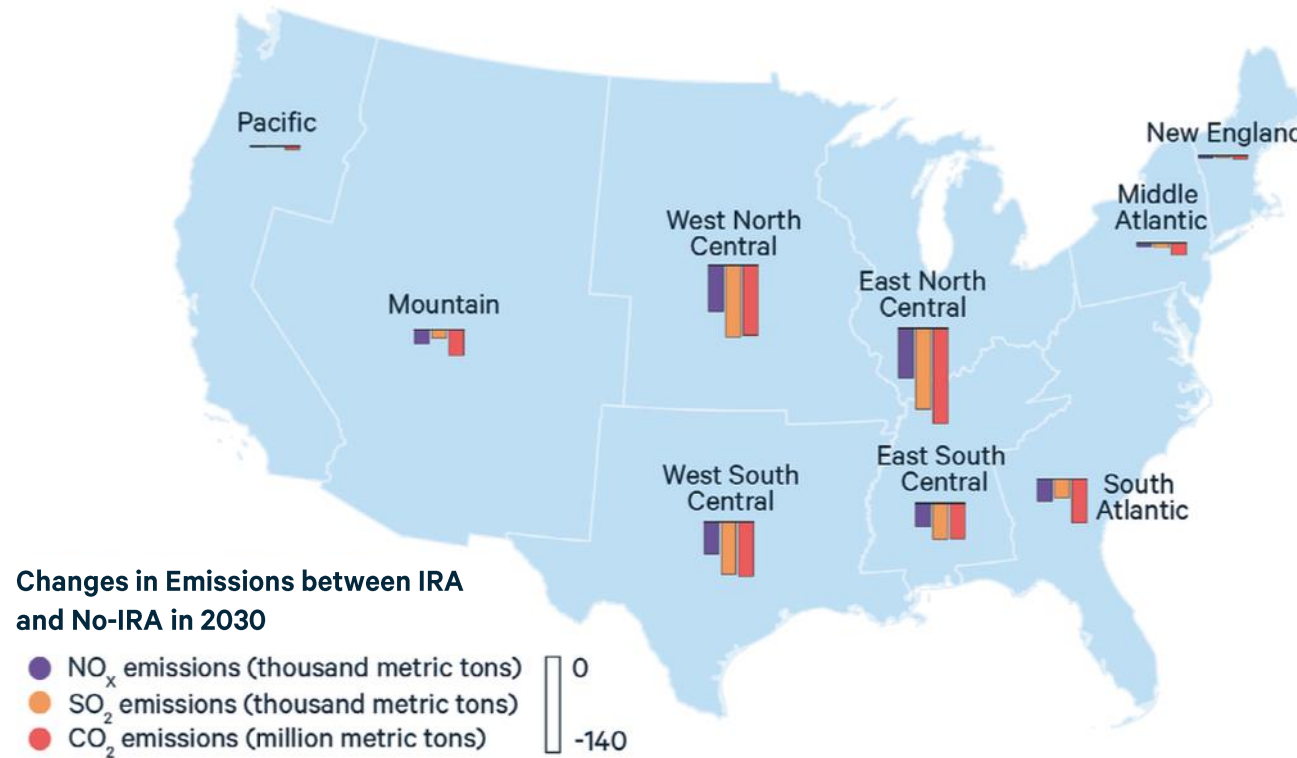


- Tax incentives for clean electricity are passed through to consumers in the form of lower retail rates
- Prices decline from approximately 12 ¢/KWh in 2022 (AEO)



# Baseline Air Quality is Improved under the IRA

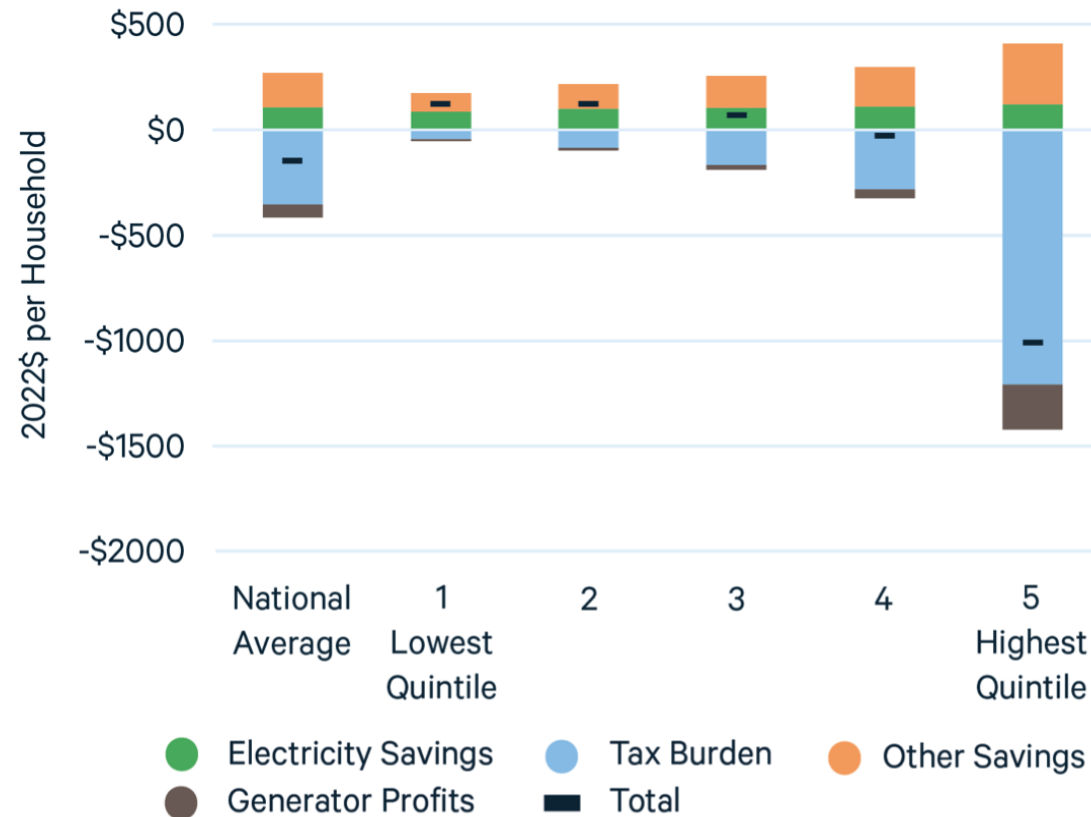
## Regional Emissions Changes in 2030





# The IRA is Paid for Through a Progressive Tax Shift

## The Distribution of Changes in Ratepayer and Taxpayer Costs in 2030



# Conclusions

- The IRA provides a market environment that strongly favors the deployment of new clean electricity generation
- Updated baseline expectations suggest substantially greater clean electricity generation with associated reductions in emissions and widespread air quality improvements
- The tax incentives reduce retail electricity prices, encouraging electrification in other sectors, but by themselves are not projected to decarbonize the power sector by 2035
- Real world conditions not represented in the models are important sources of uncertainty that will require ongoing work to characterize





# Thank you.

- Find out more about RFF online: [www.rff.org](http://www.rff.org)
- Follow us on Twitter: [@rff](https://twitter.com/rff)
- Subscribe to receive updates: [www.rff.org/subscribe](http://www.rff.org/subscribe)

# RFF Operates Two Detailed Power Sector Models: Haiku and E4ST

Both Haiku and the *Engineering, Economic and Environmental Electricity Simulation Tool (E4ST)*:

- Represent the decisions of market participants and system operators in the context of existing policies
- Project effects of new policies on generator construction, retirement, and operation in future years
- Calculate emissions of multiple gases and effects on air to estimate mortality and other health effects

**E4ST** has a detailed transmission system model of US & Canada with linear approximation of physics-based flows

**Haiku** estimates capacity investment and retirement with 26-year perfect foresight and solves rapidly



# Both Haiku and E4ST have been used extensively to inform federal and subnational policies

## Haiku

- Federal Policy
  - Cofiring Standards
  - Carbon Taxes, Clean Energy Standards, and Tax Credits
  - CEPP
- Subnational Policy
  - State Policy Options to Price Carbon
  - RGGI
  - VA, CA, etc.
- Academic work
  - Linking Emissions Programs
  - Designing Carbon Markets
  - Production Incentives in Carbon Markets

## E4ST

- RD&D funding
- State policies (e.g. 25 states and NY)
- Clean electricity standards
- Transmission expansion
- DOE proposals to prevent coal and/or nuclear retirements
- Vehicle electrification
- NG price, nuclear life, CO2 pricing, and electricity demand
- Biomass co-firing with coal
- Improved modeling methods



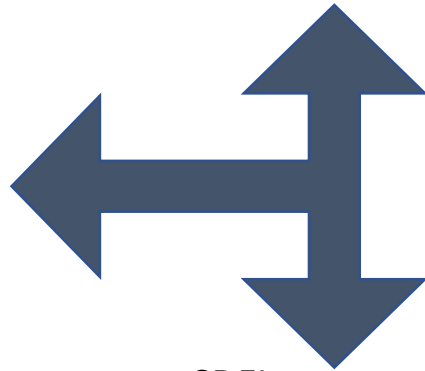


# Infrastructure Investment Jobs Act (BIL)



## Inflation Reduction ACT (IRA)

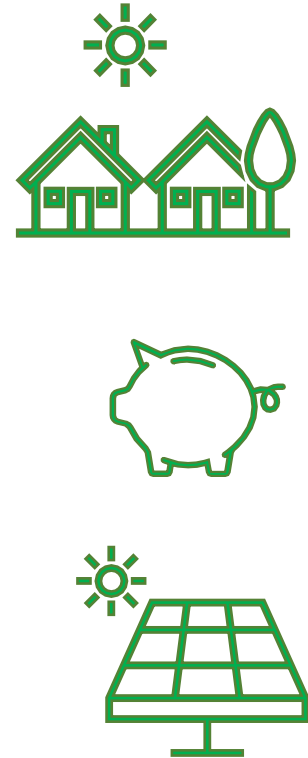
40%  
LMI/LIDC



STATE, LOCAL,  
TRIBAL  
GOVERNMENTS

CDFIs  
GREEN BANKS  
CREDIT UNIONS  
COMMUNITY  
ORGANIZATIONS  
NETWORKS, etc.

Resilient,  
Low Carbon,  
Thriving  
Sustainable  
Communities





*Solar and Energy Loan Fund, Inc.*

# Resilient, Healthy Communities for a Sustainable Future

*Florida, Alabama, Georgia, South Carolina*



# Mission



**Our Mission is to rebuild and empower underserved communities by providing accessible and affordable financing programs to improve and create healthy, resilient and sustainable h communities.**



# **SELF is the first and only Green Bank/CDFI hybrid model in the Country**

---

- Created in 2009 by St. Lucie County, Florida with a \$3 million seed grant from the U.S. Department of Energy (DOE).
- SELF was created to kick start the clean energy economy by facilitating access to low-cost capital to stimulate green jobs; and finance energy efficiency, solar and resiliency upgrades for Low-moderate income homeowners.
- SELF now operates statewide in Florida and serves the broader Southeast region



## The need to scale investments in resiliency, energy efficiency and low-carbon housing in the Southeast

- The Southeast is the most vulnerable region to severe weather events including hurricanes, extreme heat, and sea level rise.
- More people are cost-burdened in the South than in any other part of the country. **More than a1/3 of households have trouble paying their energy bills.**
- The Southeast has the lowest average FICO scores, and the highest rates of underbanked populations
- Florida, by far, has the highest percentage of cost-burdened renter households in every income category.

# SELF's LOAN PROGRAMS & Climate Equity



**Homeowners:** Unsecured loans for upgrades to single-family and small multifamily properties.



**Landlords:** Unsecured energy efficiency and resiliency rehab loans for multifamily bldgs.



**Developers:** Predevelopment and mezzanine flexible capital for Green Affordable Housing led by **BIPOC** developers.



**Contractors:** Advance funding for resilience, clean energy and energy efficiency projects



Solar Loans- Single-family homes and small-scale MF. Focus on LMI homes

## RESULTS

- **\$30 million in direct investment for over 3,000 home projects;**
- **\$100 million in private capital leveraged to create over 500 affordable housing units.**
- **Over 30,000 job hours created**
- **Leveraging public funds 13:1**






**IRA Green House Gas  
Reduction Fund (GHGRF)  
THE HISTORIC OPPORTUNITY  
TO ADVANCE CLIMATE GOALS  
WITH EQUITY AND INCLUSION**

# IRA – Inflation Reduction Act \$393.7 billion

## Breakdown of Funds:

- **Investments** through tax credits that will catalyze private investment in clean energy, transport, and manufacturing to support resilient, low carbon communities.
- **Grants** Deployed through local community organizations to ensure Low Income and Disadvantaged populations access critical capital to advance climate equity, financial inclusion and social justice.
- **Direct Pay**, is available for Non-Profits to help Low to Moderate Income communities and residents access the benefits of the 30% Investment Tax Credit (ITC), allowing for broader access to solar energy.

# Green House Gas Reduction Fund (GHGRF)

- **\$27 billion to mobilize and leverage** private capital for GHG emission reduction.
  - **Focus** on Low-income and disadvantaged community
  - **Goals:**
    - Strengthen Capacity of ecosystem
    - Accelerate transition to an equitable Net zero economy
    - Catalyze jobs of the future.
- 
- \$7 billion for States, Tribes and Municipalities and eligible No-profits. Focus on Solar.
  - \$20 billion to eligible non-profit entities who will deploy capital and facilitate technical assistance and capacity building to strengthen the ecosystem of community- based intermediaries.

# An Opportunity to scale Investment across the nation with equitable deployment of capital

## Deployment

GHGR funds will **catalyze** and **leverage** billions to help transition ALL communities to an equitable, clean energy economy.

Through an ecosystem of community focused intermediaries, funds will leverage public, private and philanthropic capital that will flow to communities both rural and urban.

40% of funds will be invested in Low and moderate disadvantaged communities.

- Green Banks
- CDFIs
- Credit Unions
- Developer, Contractor, and Regional Networks
- Community Based Organizations and more.

# Implementation of IRA / Green House Gas Reduction Funds (GHGRF)

- **Ready to Deploy, Ready to Scale, Ready to Launch**

**Green Banks** – 24 Green Banks across the nation; 5 nascent banks in the South and Southeast.

\$14 billion mobilized in "green" projects. Leveraging Capacity 3 and up to 13 times

**CDFIs**- Community Development Financial Institutions: 1,100 CDFI's nationwide  
Leveraging capacity \$8:1

200 CDFIs members of OFN network report offering at least one green product and are preparing to deploy IRA/ GHGR funds.

**Credit unions** play a critical role in helping communities in the face of natural disasters.

6000 institutions nationally, serving roughly 100 million consumers,  
\$2.25 billion mobilized in green loan products in 2021 alone.

Other intermediaries- Housing and Development Networks and other community focused non profit organizations.

# SELF AS AN IMPLEMENTATION TOOL FOR GHGRF

- SELF partners with state & local governments, housing authorities and non-profits to create and preserve resilient, energy efficient, affordable housing.
- SELF customizes programs with local government and community partners to fit needs.
- SELF leverages local government resources and raises blended impact capital to deploy in local communities.
- **SELF delivers over 70% of capital to LMI households.**



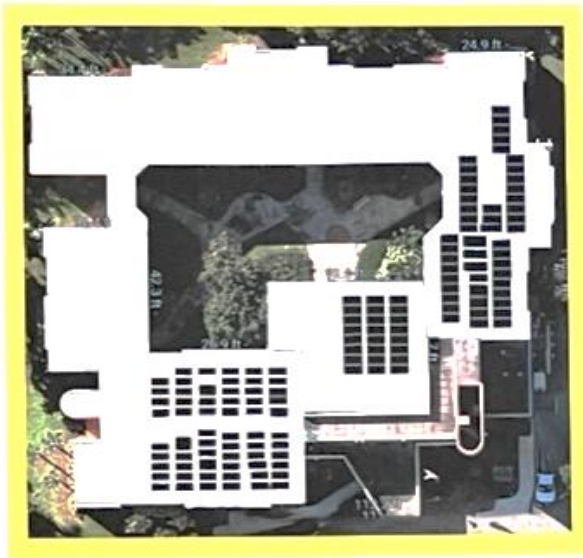


# Solar + Battery Emergency Response Resiliency Project

## Local Government- Philanthropic-Community Partnership

### GIBSON PLAZA

COOL ROOF AND PROPOSED  
SOLAR PANEL LAYOUT



- Leon Lowenstein Foundation Grant Funds \$200K
- **Leveraged by Miami Dade County**
- **\$500k**
- Solar Ready Roof
- Rooftop Solar PV + Battery Storage



# Water Quality and Environmental Preservation Loan Programs (On Bill Financing)

Public funds: \$200,000  
SELF Private Funds: \$2million



## Martin County Septic to Sewer Loan

Sign up for Martin County Utilities (MCU) Septic-to-Sewer (S2S) Conversion Program today  
and receive an automatic \$1000 discount and the option to apply for a fixed 10 year,  
\$85/month payment plan through SELF!



# Equitable Access to Capital for Climate Resiliency and Decarbonization of Homes

## Loans Based on Ability to Repay- Not on Credit Scores



**Climate Resilience – Roof Loans**  
**Pamela Turner: U.S. Veteran; Single Mother**  
**<500 Credit Score**  
**Roof Loan**  
**Impacts: Health, Safety, Quality of Life, Climate Resilience, Financial Inclusion**

## Hurricane Disaster Recovery

### How other IRA Funds work to Leverage funds and create solutions



- SELF Client suffered severe storm damage. Home was deemed uninhabitable
- Roof repair price: \$18,000
- FEMA funds available: \$5,000
- **Gap: \$13,000**
  
- Client Income: Low-moderate
- Credit score: ZERO “0”
- Insufficient savings
- Unable to access credit.
  
- SELF’s mission driven loan program provided him with unsecured, low-cost loan with repayments based on ability to repay.
- **Homeowner saved his home; was able to access insurance again; increased equity and financial inclusion**

# THANK YOU

Maria Duanne Andrade : Executive Director  
Solar and Energy Loan Fund (SELF)

[duannea@solarenergyloanfund.org](mailto:duannea@solarenergyloanfund.org)

[www.solarenergyloanfund.org](http://www.solarenergyloanfund.org)



**EESI Panel:** Implementing the Consumer Rebate Provisions of the Inflation Reduction Act  
Jana Barresi, Head of Washington, DC Office  
March 9, 2023

**LOWE'S**

Pickup





## Rebates

## Tax Credits

Name	Description	Eligible Products <sup>1</sup>	Funding
<b>High-Efficiency Electric Home Rebate Program</b>	POS rebates for eligible consumers (<150% of local median income) or multifamily owners when purchasing specific energy efficient products or services	<ul style="list-style-type: none"> <li>Heat Pump HVAC, Water Heater, Dryer</li> <li>Electric Appliances</li> <li>Upgraded Electrical Panel, Wiring, Insulation</li> </ul>	\$4.5B
<b>Home Energy Performance-Based Whole House Rebates (HOMES)</b>	Rebates to homeowners and aggregators (including multifamily) for whole-house energy saving retrofits (modeled or observed)	<ul style="list-style-type: none"> <li>Total project costs if modeled or observed energy savings are above threshold</li> </ul>	\$4.3B
<b>Energy Efficient Home Improvement Credit</b>	Credit for purchasing and installing certain energy efficient products or services	<ul style="list-style-type: none"> <li>HVAC, Heat Pump HVAC, Heat Pump Water Heater</li> <li>Windows/Doors</li> <li>Home Energy Audits</li> </ul>	10 years
<b>Residential Clean Energy Credit</b>	Credit for installation of wind, geothermal, or solar electricity production & storage systems	<ul style="list-style-type: none"> <li>S/W/GT Systems</li> <li>Battery storage 3KWh+</li> </ul>	10 years
<b>New Energy-Efficient Home Credit</b>	Pro-specific credit for new home (single or multifamily) construction meeting specific energy certifications	<ul style="list-style-type: none"> <li>Total project costs if energy certifications are met</li> </ul>	10 years
<b>Alternative Fuel Refueling Property Credit</b>	Offsets costs of purchase/installation of EV charging equipment (30% of total cost, max of \$100K benefit)	<ul style="list-style-type: none"> <li>Electric vehicle chargers</li> </ul>	10 years
<b>Clean Vehicle Credits (New, Previously Owned, Commercial)</b>	Credit for purchase of new or used electric vehicles or plug in hybrids, removes previous manufacturer caps, and imposes new vehicle price and consumer income eligibility restrictions	<ul style="list-style-type: none"> <li>New or used electric vehicles &amp; plug in hybrids</li> <li>Commercial electric vehicles</li> </ul>	10 years

# High-Efficiency Electric Home Rebate Program

## Description

Point of sale rebates for eligible consumers (<150% of local median income) when purchasing specific energy efficient products or services

*Note that there is a \$14K max lifetime benefit*

## Eligibility

**Lower Income Households** (*earn up to 80% of local average median income*)

**Up to 100% upfront discount**, capped at \$14K lifetime benefit across all products/services

**Moderate Income Households** (*earn less than 150% of local average median income*)

**Upfront discount of 50%**, capped at \$14K lifetime benefit across all products/services

**Multifamily owners are also eligible**, provided that not less than 50 percent of the residents of which are low- or moderate-income households

## Products and associated rebate or tax credit

Product	Maximum Rebate Amount
Heat Pump HVAC	\$8,000
Heat Pump Water Heater	\$1,750
Biomass Stove Or Boiler	\$840
Electric Stove, Cooktop, Range or Oven	\$840
Heat Pump Dryer	\$840
Upgrade Electrical Panel	\$4,000
Upgrade Electric Wiring	\$2,500
Insulation, Air Sealing, Ventilation	\$1,600

## Timing

Mid to late 2023 (will differ by state)

## Funding

\$4.5B for products shown (not specific by product).

Funding allocated to states (process and amounts still TBD)

# Home Energy Performance-Based, Whole-House Rebates (HOMES)

## Description

Rebates to homeowners and aggregators (including multifamily) for whole-house energy saving retrofits (modeled or observed)

## Eligibility

**All consumers are eligible (LMI consumers could get enhanced benefits).**

## Products and associated rebate or tax credit

Energy Savings	Single-Family	Multi-Family <sup>2</sup>
20 – 35 percent (Modeled)	\$2,000 or 50 percent of the project cost (whichever is less) For low- and moderate-income (LMI) individuals, \$4,000 or 80 percent of the project cost (whichever is less)	\$2,000 per dwelling unit, with a maximum of \$200,000 per multifamily building
Over 35 percent (Modeled)	\$4,000 or 50 percent of the project cost (whichever is less) For LMI individuals, \$8,000 or 80 percent of the project cost (whichever is less)	\$4,000 per dwelling unit, with a maximum of \$400,000 per multifamily building
Over 15 Percent (Measured)	\$2,000 payment rate per kilowatt hour saved equal to a 20 percent reduction, or 50 percent of project cost  For LMI individuals, \$4,000 payment rate per kilowatt hour saved equal to an average 20 percent reduction per dwelling unit, or 80 percent of project cost	\$2,000 payment rate per kilowatt hour saved equal to an average 20 percent reduction per dwelling unit, or 50 percent of project cost

## Timing

Exact timing TBD and could differ by state

## Funding

Funding allocated to states (process and amounts still TBD)

**There is also a \$200 rebate for contractors / aggregators that perform energy retrofits in “disadvantaged communities”<sup>1</sup>**

Note: IRA prohibits HOMES rebates to be combined with any other Federal grant or rebate – including the High-Efficiency Electric Home Rebate Program.

1: Determination of disadvantaged community qualifying criteria still ongoing | 2: Multifamily operators with >50% LMI occupants are eligible for larger rebates depending on mix of low- and medium-income households

# Retail Considerations

1. **Verification** – income and project verification should take place prior to customer purchases in store or online.
2. **Point of Sale Rebate Execution** – whether a coupon or QR code, rebates must work with retailers existing rebate systems.
3. **Consumer Education** – DIY and PRO Customers
4. **Post purchase rebates** – emergency repairs

# Consumer Insights – Early Analysis



**Sustainability** - bigger picture of protecting the **planet** for yourself and future generations



**Energy Efficiency** - specific to energy and is **not just doing less**, but **also gaining more** (lasts longer, more output) and is more personal to **their own home**.

*"With **prices going up** we may **ALL end up caring about energy efficiency and cutting costs.**"* DIY

*"Five years ago, I never had a customer ask me if I'm using **sustainable products.**"* Remodeler

*"I can **get higher rent and resale** with **excited tenants** knowing it's **energy efficient.**"* Property Manager

# Consumer Insights- Early Analysis

Homeowners have a strong aversion to replacing items prior to failure. However, new builds, remodels or refreshes can trigger proactive replacement.

Regardless of trigger, Homeowners and PROs expect a curated experience of product and service to increase adoption.



"I don't like spending money. I **don't see myself replacing appliances just because it's energy efficient**, especially if it's still working." DIY



"Fully explain how it works; **show me savings** (energy, rebate/credit) and **how it impacts me financially.**" DIY



"When **house goes on market... the whole house energy efficient** would be a **key selling point.**" Remodeler



"On website, **click on products that apply.** Put it out in **plain English.** And, let me know which group of customers **this is best for.**" Electrician





**EESI**

Environmental and  
Energy Study Institute

# What did you think of the briefing?

**Please take 2 minutes to let us know at:**

[www.eesi.org/survey](http://www.eesi.org/survey)

***Materials will be available at:***

[www.eesi.org/030923camp](http://www.eesi.org/030923camp)

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Thursday, March 09, 2023