

Federal Representative Remarks



Duties of the Federal Representative



- Provides an annual report to the President on SSEB programs and activities.
- Serves as the official liaison between SSEB and all federal agencies.
- Presents SSEB's perspective to the Congress and Congressional staff.
- Assists SSEB and its staff in development of federal programs of interest.
- Serves as a member of the Carbon Dioxide Capture, Utilization, and Sequestration Federal Lands and Outer Continental Shelf Task Force.



BIL, CHIPS, and IRA

- Since late 2021, President Biden has signed three pieces of legislation with some shared priorities to improve economic competitiveness, innovation, and industrial productivity.
 - Bipartisan Infrastructure Law (BIL)
 - CHIPS & Science Act
 - Inflation Reduction Act (IRA)
- Combined, they introduce \$2 trillion in new federal spending over the next ten years.

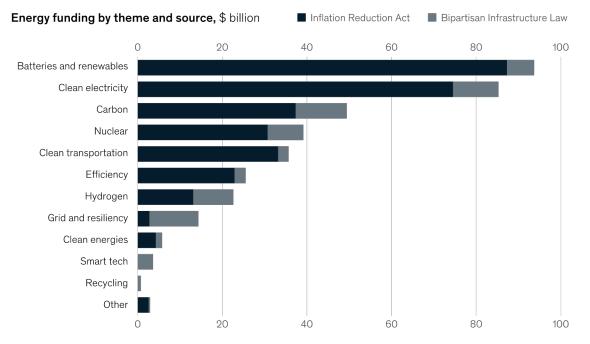




The Bipartisan Infrastructure Law provided the Department of Energy with **\$62 billion** to stand up **60** new programs, including **16** demonstration and **32** deployment programs, and expands funding for **12** existing Research, Development, Demonstration, and Deployment (RDD&D) programs.



Energy funding from the Bipartisan Infrastructure Law and the Inflation Reduction Act spans major funding themes, totaling \$370 billion.



Note: This exhibit reflects analysis of the appropriation figures contained in the Inflation Reduction Act, as well as those reported by the Congressional Budget Office and Joint Committee on Taxation. This analysis may differ from other analyses due to differences in methodology. Source: Inflation Reduction Act of 2022, H.R. 5376, 117th Cong. (2021–22); Infrastructure Investment and Jobs Act, H.R. 3684, 117th Cong. (2021–22)

McKinsey & Company

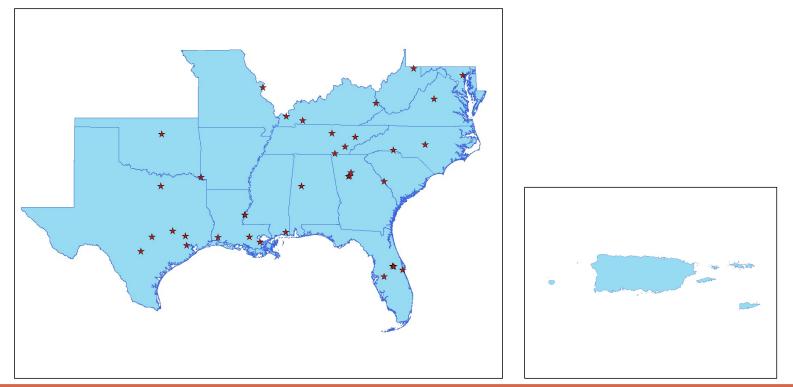


Overview from the Department of Energy

Highlights of Bipartisan Infrastructure Law			
Clean Energy Demonstrations and Research Hubs	\$21.5B		
Demonstration Projects in Rural Areas	\$1B		
Demonstration Projects in Economically Hard-Hit Communities	\$500 million		
Carbon Capture, Direct Air Capture, and Industrial Emission Reduction	\$10B		
Clean Hydrogen	\$8B		
Nuclear - Prevention of Premature Retirements and Advanced Technology	\$8.5B		
Hydropower Facilities	\$700 million		
Battery Supply Chain	\$7B		
Weatherization Assistance Program	\$3.5B		
Energy Efficiency and Conservation Block Grant Program	\$550 million		
State Energy Program	\$500 million		
Clean School Program	\$500 million		
Environmental and Energy Justice	Integrated throughout		



Bipartisan Infrastructure Law – Announced Projects by DOE





BIL – SSEB Award Announcements

- **\$18** million to establish site characterization and permitting efforts to develop a storage hub near Bucks, Alabama, for CO2 sourced from a variety of industries including electric generation and steel manufacturing.
- **\$3 million** to study a potential regional-scale CO2 transport system in the Houston-Galveston area to move at least 8 million metric tons of CO2/year.
- **\$15.2 million** to integrate CO2 capture and storage associated with cement manufacturing at the Ash Grove Foreman Cement Plant in Foreman, Arkansas
 - includes Air Liquide's CryocapTM technology as the basis for post-combustion and/or process system CO2 capture, and pipeline and storage field development in the Jurassic Smackover Formation.



BIL – Hydrogen Hub Program and SSEB

- The LIGH₂T group consists of the Southern States Energy Board, <u>INEOS</u>, <u>Linde</u>, <u>MPLX</u> and 13 consortium members and has the potential to become a flagship for the long-term growth of clean hydrogen development and utilization in the Gulf Coast region.
- Approved by DOE to make a full application.





BIL – State Energy Programs

- In August 2022, DOE announced \$425 million in BIL funding for calendar year 2023
- DOE offered technical assistance as well as optional cohort-based assistance.
 - DOE's technical assistance includes modeling and analytics support, peer discussion groups and networking opportunities.
 - DOE's cohort assistance is built around the topics of transmission and distribution planning, grid expansion and clean energy manufacturing planning.





BIL Opportunities and Deadlines – July 2023

•July 13, 2023 – Pre-applications due for DOE's Energy Improvement in Rural or Remote Areas (ERA) Fixed Award Grant Program •July 18, 2023 – Applications due for DOE's Buildings Upgrade Prize (Buildings UP) •July 19, 2023 – Pre-Application due for Southeast Crescent Regional Commission's State Economic and Infrastructure Development Grant Program •July 19, 2023 – Full Applications due for DOE's Clean Hydrogen, Electrolysis, Manufacturing and Recycling Program July 24, 2023 – Applications close for PHSMA's Natural Gas Distribution Infrastructure Safety and Modernization Program FY2023 round July 25, 2023 – Applications due for DOE's Section 41006(A)(2): U.S. Tidal Energy Advancement Program
 July 26, 2023 – Applications due for USDOT's FY2022-2023 funding for the Reduction of Truck Emissions at Port Facilities Grant Program •July 28, 2023 – Applications due for the Joint Office of Energy and Transportation's Ride and Drive Electric, Fiscal Year 2023 Funding Opportunity •July 28, 2023 – Applications due for DOE's Energy Improvement in Rural or Remote Areas Funding Opportunity July 31, 2023 – Applications due for DOE's Industrial Assessment Center (IAC) Program •July 31, 2023 - Comments due in response to Request for Information on DOE's Operational Validation of Pilot-Scale Clean Energy Technology Components and Subsystems •July 31, 2023 – Pre-Award Information Sheet due for DOE's Energy Efficiency and Conservation Block Grant Program Formula Awards



BIL Opportunities and Deadlines – August 2023

•August 2, 2023 – Applications due for EPA's Brownfields Job Training Grants

 <u>August 3, 2023 – Applications due for DOE's Funding Opportunity Announcement for Energy Improvements at Nonprofits</u>
 <u>August 4, 2023 – Full applications due for DOE's Industrial Decarbonization and Emissions Reduction Demonstration-to-</u> Deployment Funding Opportunity Announcement (IIJA and IRA program)

•August 7, 2023 – Applications due for DOE's Competitive Energy Efficiency and Conservation Block Grant (EECBG) Program

•August 8, 2023 – Comments due on EPA's new Carbon Pollution Standards for Coal and Natural Gas-Fired Power Plants (extended from July 24)

•August 11, 2023 – Full Applications due for USDOE's Vehicle Technology Office Program Wide Funding Opportunity Announcement

•August 15, 2023 – Final Applications due for DOE's Industrial Assessment Center (IAC) Program – IACs at Trade Schools, Community Colleges, and Union Training Programs: and Building Training and Assessment Centers (BTAC) Program

•August 17, 2023 – Concept Papers due for DOE's Consumer Electronics Battery Recycling, Reprocessing and Battery Collection Program

•August 22, 2023 – Applications due for EPA's 2023 Clean School Bus (CSB) Grant Program

 <u>August 3, 2023 – Applications due for DOE's Funding Opportunity Announcement for Energy Improvements at Nonprofits</u>
 <u>August 31, 2023 – Applications due for DOE's Clean Energy Demonstration Program on Current and Former Mine Land</u> (CEML)

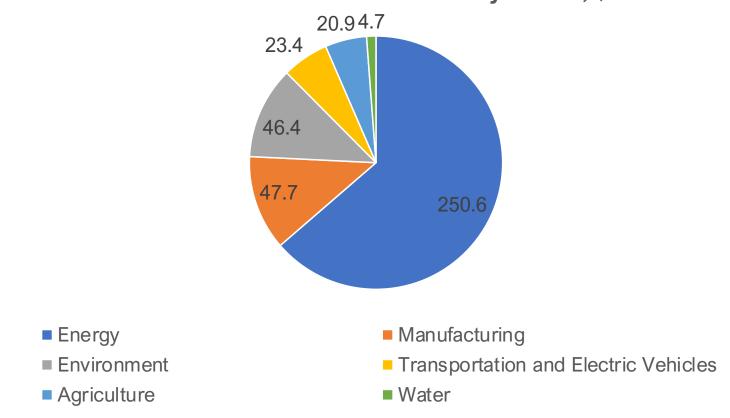
•August 31, 2023 – Applications deadline for Tribes for FY22 and FY23 grants under the Grid Resilience State and Tribal Formula Grants Program



BIL Opportunities and Deadline - Additional

September 8, 2023 – Applications close for DOE's Advanced Battery R&D Consortium opportunity
September 15, 2023 – Full Application due for Southeast Crescent Regional Commission's State
Economic and Infrastructure Development Grant Program
September 30, 2023 – Applications close for FY2023 funding for DOI's Abandoned Mine Land Grant
Program
October 6, 2023 – Full applications due for DOE's Maintaining and Enhancing Hydroelectricity
Incentives Program
October 12, 2023 – Full applications due for DOE's Energy Improvement in Rural or Remote Areas
(ERA) Fixed Award Grant Program
November 11, 2023 – Full Applications due for DOE's Consumer Electronics Battery Recycling,
Reprocessing and Battery Collection program
November 29, 2023 – Applications due for DOE's Consumer Electronics Battery Recycling,
Reprocessing, and Battery Collection Program
January 31, 2024 – Local and Tribal Government Applications due for DOE's Energy Efficiency and Conservation Block Grant (EECBG) Program





Inflation Reduction Act Investments by Sector, \$ Billion

Note: This exhibit reflects analysis of the appropriation figures contained in the Inflation Reduction Act, as well as those reported by the Congressional Budget Office and Joint Committee on Taxation. This analysis may differ from other analyses due to differences in methodology. Source: Inflation Reduction Act of 2022, H.R. 5376, 117th Cong. (2021–22); McKinsey analysis



Inflation Reduction Act - DOE

- DOE is responsible for administering IRA loan authorities to provide direct loans and loan guarantees across three key programs:
 - Energy Infrastructure Reinvestment
 - Innovative Clean Energy
 - Advanced Technology Vehicle Manufacturing
- In total, DOE's Loan Program Office will administer \$367 billion in Ioan authorities.
- DOE is also committed to accelerating the buildout of long-distance transmission through \$2 billion in support for transmission facility financing and \$760 in grants to support the siting of interstate transmission projects.





Inflation Reduction Act - \$43 Billion for USDA

 Major programs include investments in affordable and clean energy for rural communities, investments in biofuels, and investments in nature-based solutions and climate smart agriculture through the Environmental Quality Incentives Program (EQIP).

New ERA Program

• \$9.7 Billion to eligible rural electric cooperatives to deploy renewable energy systems, zeroemission and carbon capture systems

PACE Program

 \$1 Billion in partially forgivable loans to renewable-energy developers and electric service providers, including municipals, cooperative, and investor-owned and Tribal utilities to help finance large-scale solar, wind geothermal, biomass, hydropower projects and energy storage



USDA – IRA Opportunities and Deadlines

- Ongoing (varies by state) Applications due for the Agricultural Conservation Easement Program (ACEP) for state and local governments, tribes and nongovernmental organizations that have farmland, rangeland or grassland protection programs
- Ongoing Applications accepted year round for the Rural Energy for America Program (REAP) – Underutilized Renewable Technologies and Renewable Energy Systems and Energy Efficiency Improvement Programs
- August 31, 2023 Letters of Interest due for the Empowering Rural America Program (New ERA)
- September 29, 2023 Letters of Interest due for the Powering Affordable Clean Energy Program (PACE)



Impact of IRA on Utility-Scale Clean Energy

- The most recent update from the American Clean Power Association shows that, since the passage of the IRA, the U.S. utility-scale clean energy industry has announced...
 - \$242 billion of investment
 - 25,180 new jobs
 - and more than 163,750 MW of new projects
- The total investment announced during this time period is equivalent to the past **seven years' worth of American clean energy investment**.



CHIPS Act

Department of Energy

 \$67 billion including \$50 billion authorization for DOE's Office of Science to enable cutting-edge research and development in clean energy and advanced computing and manufacturing

Department of Commerce

- \$50 billion over 5 years
 - \$39 billion for a semiconductor manufacturing incentives program
 - \$11 billion for R&D and workforce measures.

Economic Development Administration

- \$11 billion over 6 years.
 - \$10 billion to create 20 geographically distributed "regional technology and innovation hubs" in areas that are not leading technology centers
 - \$1 billion as part of establishing the "Recompete Pilot Program" to support persistently distressed communities.



CHIPS Act – Opportunities and Deadlines

- February 28, 2023 and onwards Statements of Interest from potential applicants will be accepted on a rolling basis for the CHIPS Incentive Program – Commercial Fabrication Facilities
- June 26, 2023 For potential applications for current-generation, mature-node and back-end production facilities, full applications will be accepted on a rolling basis for the CHIPS Incentive Program – Commercial Fabrication Facilities
- <u>August 15, 2023 Deadline for Phase 1 applications for EDA's FY2023</u> <u>Regional Technology and Innovation Hub Program</u>



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BIL Project List for SSEB Map

STATE	CITY	COUNTY	PROGRAM NAME	PROJECT NAME	FUNDING
Arkansas	Foreman		Carbon Capture Demonstration Projects Program	Ash Grove Foreman Cement Plant Carbon Capture and Storage	TBD
Florida	Brevard Public Schools, FL		Grants for Energy Efficiency and Renewable Energy Improvements at Public School Facilities	Energy CLASS Prize: Brevard Public Schools, FL	\$100,000
Florida	Mulberry		Carbon Capture Demonstration Projects Program	Polk Power Station Integrated CO2 Capture Project	TBD
	Orange County Public Schools,		Grants for Energy Efficiency and Renewable Energy		
Florida	FL	0	Improvements at Public School Facilities	Energy CLASS Prize: Orange County Public Schools, FL	\$100,000
	Orlando		Solar Energy Research and Development	Solar Panel Recycling: University of Central Florida	\$1,500,000
Georgia	Atlanta		Industrial Research and Assessment Centers	Georgia Institute of Technology	\$1,400,000
Georgia	Atlanta		Industrial Research and Assessment Centers	Southeastern Center of Excellence at Georgia Tech University	\$3,750,000
Georgia	Atlanta		Solar Energy Research and Development	Solar Panel Recycling: Georgia Institute of Technology	\$1,500,000
Georgia	Augusta		Battery Materials Processing Grants	Solvay Battery-Grade PVDF Manufacturing Facility	\$178,218,568
Ŭ	-		Grants for Energy Efficiency and Renewable Energy		
Georgia	City Schools of Decatur		Improvements at Public School Facilities	Energy CLASS Prize: City Schools of Decatur, GA	\$100,000
Georgia	Peachtree Corners		Carbon Storage Validation and Testing	Southern States Energy Board	\$17,984,523
Ŭ			Carbon Dioxide Transportation Infrastructure Finance and		
Georgia	Peachtree Corners		Innovation Program	Southern States Energy Board	\$3,000,000
Kentucky	Hopkinsville		Battery Materials Processing Grants	Apex – Integrated Sustainable Battery Precursor	\$316,186,575
Kentucky	Hopkinsville		Battery Materials Processing Grants	Apex – Integrated Sustainable Battery Active Material Production Plant	\$164,395,625
Kentucky	Martin County School District, KY		Grants for Energy Efficiency and Renewable Energy Improvements at Public School Facilities	Energy CLASS Prize: Martin County School District, KY	\$100,000
			Grants for Energy Efficiency and Renewable Energy		,,
Kentucky	Paducah Public Schools, KY		Improvements at Public School Facilities	Energy CLASS Prize: Paducah Public Schools, KY	\$100,000
Louisiana	Hahnville		Carbon Capture Demonstration Projects Program	Cypress Carbon Capture Project	TBD
Louisiana	St. Gabriel		Battery Materials Processing Grants	LiPF6 Manufacturing Plant in St. Gabriel, Louisiana	\$100,000,000
Louisiana	Vidalia		Battery Materials Processing Grants	Phase 3 Expansion of Syrah's Commercial-Scale Natural Graphite Active Anode Material Facility in Vidalia, Louisiana	\$219,820,610
Louisiana	Westlake		Carbon Capture Demonstration Projects Program	Lake Charles Power Station Integrated CO2 Capture Project	TBD
Maryland	Baltimore City Public Schools		Grants for Energy Efficiency and Renewable Energy Improvements at Public School Facilities	Energy CLASS Prize: Baltimore City Public Schools, MD	\$100,000

BIL Project List for SSEB Map

STATE	CITY	COUNTY	PROGRAM NAME	PROJECT NAME	FUNDING
Missission	Jackson County School Di District, MS	Jackson	Grants for Energy Efficiency and Renewable Energy Improvements at Public School Facilities	Energy CLASS Prize: Jackson County School District, MS	\$100,000
	Natchez Adams School	500000	Grants for Energy Efficiency and Renewable Energy		<i>\</i> 200)000
Mississipp	piDistrict, MS		Improvements at Public School Facilities	Energy CLASS Prize: Natchez Adams School District, MS	\$100,000
Missouri	St. Louis		Battery Materials Processing Grants	Commercial Production of Lithium Iron Phosphate Cathode Powder for the Global Lithium Battery Industry	\$197,338,492
North					+,,
Carolina	Kings Mountain		Battery Materials Processing Grants	Kings Mountain Lithium Materials Processing Plant	\$149,658,312
North					
Carolina			Battery Materials Processing Grants	Advanced Prelithiation and Lithium Anode Manufacturing Facility	\$100,000,000
Oklahoma	a Stillwater		Industrial Research and Assessment Centers	Great Plains Center of Excellence at Oklahoma State University	\$3,750,000
				Large Scale, Energy Efficient, Domestic Production of High-performance	
Tennesse	eChattanooga		Battery Materials Processing Grants	Synthetic Graphite Anode Material for Use in Electric Vehicles and Energy Storage Systems	\$150,000,000
Tennesse	eKnoxville		Wind Energy Tech Recycling Research & Development	Small Business Innovative Research Phase III: Carbon Rivers	\$1,100,000
Tonnosso	eKnoxville		Solar Energy Research and Development	Electric Power Research Institute	\$3,400,000
Termesse	enioxville		Solar Energy Research and Development		\$5,400,000
Tennesse	e	Mcminn	Battery Materials Processing Grants	Tennessee Lithium	\$141,680,442
Texas	Austin		Solar Energy Research and Development	Solar Panel Recycling: Electroninks Incorporated	\$750,000
Texas	College Station		Industrial Research and Assessment Centers	Gulf Coast Center of Excellence at Texas A&M University	\$3,750,000
Texas	Denton		Industrial Research and Assessment Centers	University of North Texas	\$1,400,000
Texas	Houston		Carbon Storage Validation and Testing	Bluebonnet Sequestration Hub, LLC	\$16,480,117
Texas	Houston		Carbon Storage Validation and Testing	BP Corporation North America Inc.	\$33,411,193
Texas	Houston		Carbon Storage Validation and Testing	Magnolia Sequestration Hub, LLC	\$21,570,784
Texas	Houston		Carbon Storage Validation and Testing	Timberlands Sequestration, LLC	\$23,779,020
			Grants for Energy Efficiency and Renewable Energy		
Texas	IDEA Public Schools, TX		Improvements at Public School Facilities	Energy CLASS Prize: IDEA Public Schools, TX	\$100,000
			Carbon Dioxide Transportation Infrastructure Finance		
Texas	San Antonio		and Innovation Program	Howard Midstream Energy Partners LLC	\$3,000,000
	San Antonio Independent		Grants for Energy Efficiency and Renewable Energy		
Texas	School District, TX		Improvements at Public School Facilities	Energy CLASS Prize: San Antonio Independent School District, TX	\$100,000
	Albemarle County Public		Grants for Energy Efficiency and Renewable Energy		4400 555
Virginia	Schools, VA	Albemarle	Improvements at Public School Facilities	Energy CLASS Prize: Albemarle County Public Schools, VA	\$100,000
West			Development Automation	Critical Marcada Deservada March Martinia da Hatarania	¢0.000.000
Virginia	Morgantown		Rare Earth Security Activities	Critical Minerals Research: West Virginia University	\$8,000,000

State Energy Program (SEP)

• Purposes of BIL Funding for SEP

• Provide funding to states to support electric transmission and distribution planning as well as planning activities and programs that help reduce carbon emissions in all sectors of the economy, including the transportation sector and accelerate the use of alternative transportation fuels and vehicle electrification.





State Energy Program

• Eligible Uses:

- Energy conservation measures, renewable energy measures, and programs to increase deployment of clean energy technologies in buildings, industry and transportation
 - including programs to help reduce carbon emissions in the transportation sector and accelerate the use of alternative transportation fuels for, and the electrification of, State government vehicles, fleet vehicles, taxis and ridesharing services, mass transit, school buses, ferries, and privately owned passenger and medium- and heavy-duty vehicles.





Weatherization Assistance Program (WEP)

Purposes of BIL Funding for WEP

- Increase the energy efficiency of dwellings owned or occupied by low-income persons,
- Reduce their total residential energy expenditures, and
- Improve their health and safety, especially low-income persons who are particularly vulnerable such as the elderly, the handicapped, and children.

Weatherization Assistance Program

- Grantees may receive formula-based allocations and can perform weatherization retrofits with an average cost of up to \$8,009 per dwelling unit in Fiscal Year 2022.
- Eligible Uses:
 - attic insulation, caulking, weather-stripping, furnace efficiency modifications, certain mechanical measures to heating and cooling systems, and replacement furnaces, boilers, and air-conditioners.





BIL Funding Versus Annual Funding (FY22)

State Energy Program

BIL funding = \$500 million FY22 funding = \$63 million

Example: Oklahoma was allocated \$826,440 under the FY21 formula

DOE has not determined the BIL formula funding amounts to each state. That information anticipated late this summer.



BIL Funding Versus Annual Funding (FY22)

Weatherization Assistance Program

BIL funding = \$3.5 billion FY2022 funding = \$313 million

Example: Oklahoma was allocated \$3,271,910 in the FY21 formula

DOE has not determined the BIL formula funding amounts to each state. That information anticipated late this summer.

