

THE INFLATION REDUCTION ACT

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THE BOTTOM LINE

- ❖ It's a huge amount of money & also not quite enough
- ❖ Big benefits for EJ, also big risks
- ❖ How can states leverage these resources to make $2+2=5$?
- ❖ **It's all about implementation**



THE INFLATION REDUCTION ACT

- ❖ \$37B for Tax Credits
- ❖ \$9B for Grants and Rebates
- ❖ \$8B for Pollution Reduction
- ❖ \$1B for Affordable Housing
- ❖ \$500MM for Manufacturing



TAX CREDITS: \$37B

- ❖ **Clean electricity (\$22B).** 30% tax credit for eligible measures.
- ❖ **Residential (12.5B).** Up to \$2k, less for fuel-fired equipment.
- ❖ **New homes (\$2B).** Up to \$5k/unit.
- ❖ **Commercial (\$362MM).** \$2.50-\$5/ft², great for retrofits.



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GRANTS: \$9B

- ❖ **Electrification (\$4.5B).** ASHP, HPWH, electrical, etc.
- ❖ **Whole-home (\$4.3B).** Up to \$8k/home, retrofit only
- ❖ **Contractors (\$250MM).** For state training programs



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POLLUTION: \$35B

GHG Reduction Fund (\$27B)

- ❖ Funds state green banks
- ❖ Focus on EJ communities
- ❖ Recipient must be a nonprofit, *not a government agency*



POLLUTION: \$35B

Planning Grants (\$5B)

- ❖ For GHG reduction plans
- ❖ Opportunity announcement 270 days after enactment
- ❖ State, air agency, municipality, or tribe



POLLUTION: \$35B

Block Grants (\$3B)

- ❖ To benefit EJ communities
- ❖ Period up to 3 years
- ❖ Eligible: monitoring, remediation, IAQ, workforce, heat islands, infrastructure, etc.



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AFFORDABLE HOUSING: \$1B

For HUD loans & grants

- \$838MM for direct loans
 - Principal not to exceed \$4B
- \$42.5MM for benchmarking
- \$120MM for HUD itself



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MANUFACTURING: \$500MM

Enhanced use of DPA:

- ❖ Expanding manufacturing facilities or assembly lines
- ❖ Subsidizing domestically produced materials
- ❖ Purchasing & installing equipment at industrial plants





Thank You

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**BUILDING
DECARBONIZATION
COALITION**

APPENDIX

SUMMARY

Grants and Rebates

- **Residential Rebates (\$9B):** Whole-home performance (\$4.3B), electric equipment (\$4.5B), contractor training grants (\$200MM)
- **Affordable Housing Resilience (\$1B):** Energy efficiency or climate resilience improvements for affordable housing
- **Building Code Grants (\$1B):** Implementation assistance for the latest and/or net-zero building energy codes
- **Federal Building Investments (\$250MM):** “leading by example” style investments in federally-owned buildings
- **Clean Energy Loan Guarantees:** Funding for DOE Loan Programs office (\$3.6B), loan guarantee authority (\$40B)

Tax Credits

- Residential Clean Electricity Credit (\$22B)
- Residential Energy Efficiency Credit (\$12.5B)
- New Energy Efficient Home Credit (\$2B)
- Commercial Efficiency Deduction (\$362MM)

Manufacturing

- Defense Production Act (\$500MM)

Pollution Reduction and Environmental Justice

- **GHG Reduction Fund (\$27B):** Green bank initiative with flexible measure eligibility, focus on disadvantaged communities
- Climate Pollution Reduction Grants (\$5B)
- Environmental and Climate Justice Block Grants (\$3B)



DETAILED SUMMARY

Home Electrification and Energy Efficiency Rebates

- Sec. 50121: Home energy performance-based, whole house rebates; Sec. 50122: High-efficiency electric home rebate program; Sec. 50123: State-based home energy efficiency contractor training grants
- Dollar amount: \$9 billion
 - Whole-house energy efficiency retrofit rebates – \$4.3 billion
 - Electrification rebates – \$4.5 billion
 - Training for contractors – \$0.2 billion

Affordable Housing Resilience and Efficiency Investments

- Sec. 30002: Improving energy efficiency or water efficiency or climate resilience of affordable housing
- Dollar amount: \$1 billion

Efficient Building Code Adoption Grants

- Sec. 50131: Assistance for latest and zero building energy code adoption
- Dollar amount \$1 billion

Federal Building Investments

- Sec. 60502: Assistance for federal buildings
- Dollar amount: \$0.25 billion

Greenhouse Gas Reduction Fund

- Sec. 60103: Greenhouse Gas Reduction Fund
- Dollar amount: \$27 billion

Clean Energy Loan Guarantees

- Sec. 50141: Funding for Department of Energy Loan Programs Office
- Dollar amount: \$3.6 billion (and \$40 billion in loan guarantee authority)

Building Tax Credits

- Residential Clean Electricity Tax Credit
 - Sec. 13302: Residential clean energy credit
 - Dollar amount: \$22.022 billion
- Residential Energy Efficiency Tax Credit
 - Sec. 13301: Extension, increase, and modifications of nonbusiness energy property credit
 - Dollar amount: \$12.451 billion
- New Energy Efficient Home Tax Credit
 - Sec. 13304: Extension, increase, and modifications of new energy efficient home credit
 - Dollar amount: \$2.043 billion
- Commercial Energy Efficiency Tax Deduction
 - Sec. 13303: Energy efficient commercial buildings deduction
 - Dollar amount: \$0.362 billion
 - Defense Production Act

Manufacturing

- Sec. 30001: Enhanced use of Defense Production Act of 1950
 - Dollar amount: \$0.5 billion

Environmental Justice and Community Resilience

- Climate Pollution Reduction Grants
 - Sec. 60114: Climate pollution reduction grants
 - Dollar amount: \$5 billion
- Environmental and Climate Justice Block Grants
 - Sec. 60201: Environmental and Climate Justice Block Grants
 - Dollar amount: \$3 billion



HOME ELECTRIFICATION & ENERGY EFFICIENCY REBATES

Sec. 50122: High-efficiency electric home rebate program – \$4.5 billion

- Provides funding through **State Energy Offices and Tribes** for rebates for electric appliances.
- Rebates **50% or 100% of project cost**, up to measure-specific caps:
 - \$8,000 for ashp,
 - \$1,750 for a HPWH,
 - \$840 for an electric stove,
 - \$840 for an electric clothes dryer.
 - \$4,000 for an upgraded breaker box,
 - \$2,500 for upgraded electrical wiring, and
 - \$1,600 for insulation, ventilation and sealing.
 - Total home cap of \$14,000 cap. This program is income tested at 150% AMI.
- Available for new construction
- 50% of costs up to rebate caps for households at 80%-150% AMI
- 100% costs up to caps for households at <80% AMI
- Can be combined with ITC. No double dipping with Hope for Homes or other federal rebates.



HOME ELECTRIFICATION & ENERGY EFFICIENCY REBATES

Sec. 50121: Home energy performance-based, whole house rebates - \$4.3 billion

- Provides funding for **State energy offices** for whole-home rebates for retrofits of up to \$4,000/home for market rate customers, \$8,000 for LMI homes (for energy savings >35%). No income testing.
- Rebate is based on either **modeled or measured energy** savings for the home overall
- Not available for new construction, retrofit only.
- Can be combined with ITC. Cannot receive a rebate through another federal program for the same measure (e.g. no double dipping w/ HEEHR).



HOME ELECTRIFICATION & ENERGY EFFICIENCY REBATES

Sec. 50123: State-based home energy efficiency contractor training grants - \$250 million

- Financial assistance to **States** to develop and implement a **State program** which shall provide **training and education to contractors** involved in the installation of home energy efficiency and electrification improvements as part of an approved State energy conservation plan under the State Energy Program.
- A State may use amounts received
 - **to reduce the cost of training contractor employees;**
 - **to provide testing and certification of contractors trained and educated under a State program**
 - **to partner with nonprofit organizations to develop and implement a State program.**



BUILDING TAX CREDITS

- Residential Clean Electricity Tax Credit
 - Sec. 13302: Residential clean energy credit
 - Dollar amount: \$22.022 billion
- Extends the full 30 percent credit for eligible expenditures for on-site residential solar electric, solar water heating, fuel cell, small wind energy, and geothermal heat pumps through the end of 2032.
- The credit then phases down to 26 percent in 2033 and 22 percent in 2034, expiring at the end of 2034.
- Expands eligible property to include battery storage.



BUILDING TAX CREDITS

Residential Energy Efficiency Tax Credit

- Sec. 13301: Extension, increase, and modifications of nonbusiness energy property credit
- Dollar amount: \$12.451 billion

Sec. 25C - Homeowner Improvements	Current Incentive	New Incentive
Credit Value	10% of eligible purchases up to \$500 lifetime limit, with lower caps on some products (e.g., max \$300 for central AC).	30% of eligible purchases with no lifetime limit. Maximum annual credit of \$1,200 with exception of \$2,000 for heat pumps. Maximum credit of \$600 on traditional AC, furnaces and boilers.
Performance Requirement	Must meet 2009 IECC for envelope. For equipment, varies by product category, with static performance specs that don't evolve over time.	For envelop, latest IECC. For equipment, highest CEE Tier (not Advanced) for most product categories, allowing performance requirement to automatically evolve. ENERGY STAR Most Efficient for windows/doors.



BUILDING TAX CREDITS

Residential Energy Efficiency Tax Credit - continued

Sec. 13301: Extension, increase, and modifications
of nonbusiness energy property credit
- Dollar amount: \$12.451 billion

Sec. 25C - Homeowner Improvements (cont.)	Current Incentive	New Incentive
Duration	Expired 12/31/2021	10-year extension through 12/31/2032
Qualifying Products	Envelope improvements, water heaters, heat pump water heaters, central AC, air source heat pumps, boilers, furnaces, windows, doors and skylights, roofing.	Minor changes. Adds electrical panel upgrades for a credit up to \$600 and home energy audits as qualifying for credit of up to \$150. Roofing removed as qualifying category, and air barriers/duct sealing clarified as qualifying



BUILDING TAX CREDITS

New Energy Efficient Home Tax Credit

- Sec. 13304: Extension, increase, and modifications of new energy efficient home credit
- Dollar amount: \$2.043 billion

Sec. 45L New Home Construction	Current Incentive	New Incentive
Credit Value	\$1,000 - 2,000 per unit	\$2,500 base tier, with higher tier of \$5000. Adjusted annually for inflation.
Performance Requirement	50% improvement over 2006 IECC	ENERGY STAR for \$2,500 base tier and DOE Zero Energy Ready for \$5,000 tier
Duration	Expired 12/31/2021	10-year extension through 12/31/2032
Scope & Conditions	<ul style="list-style-type: none">- Available single-family homes and multifamily projects of three stories or less under IECC- No wage requirements- Can't take Low Income Housing Tax Credit (LIHTC) and 45L credit	<ul style="list-style-type: none">- Available for multifamily projects of any size with \$2,500/\$5,000 per unit.- Multifamily projects must meet prevailing wage requirements or receive lower credit of \$500/\$1,000- Credit amended so it does not impact basis for LIHTC, allowing projects to use both



BUILDING TAX CREDITS

Commercial Energy Efficiency Tax Deduction
- Sec. 13303: Energy efficient commercial buildings deduction
- Dollar amount: \$0.362 billion

Sec. 179D Commercial Buildings	Current Incentive	New Incentive
Credit Value	\$1.80 per square foot	Sliding scale \$2.50 to \$5.00
Performance Requirement	50% improvement over latest DOE-determined ASHRAE standard. (This was updated in December 2020 legislation from 50% improvement over ASHRAE 90.1-2007)	<p>Must exceed latest DOE-determined ASHRAE 90.1 by minimum of 25% to receive \$2.50, rising in 10-cent increments up to \$5.00 for each percentage point improvement up to 50% above 90.1</p> <p>OR</p> <p>Existing buildings can get sliding scale \$2.50-\$5.00 deduction by demonstrating 25%-50% energy use intensity reduction over existing baseline, making the deduction far more attractive for retrofits</p>



AFFORDABLE HOUSING RESILIENCE & EFFICIENCY INVESTMENTS

Sec. 30002: Improving energy efficiency or water efficiency or climate resilience of affordable housing - \$1 billion

- Appropriated to the Secretary of Housing and Urban Development to “eligible recipient”: any **owner or sponsor of an eligible property**;
- Funds shall be used for providing direct loans, the costs of modifying such loans, and for grants, not to exceed **\$4 billion**, to fund projects that
 - improve energy or water efficiency,
 - enhance indoor air quality or sustainability,
 - implement the use of zero-emission electricity generation,
 - low-emission building materials or processes,
 - energy storage, or
 - building electrification strategies, or
 - address climate resilience.
- \$42.5 million for energy and water benchmarking of properties



EFFICIENT BUILDING CODE ADOPTION GRANTS

Sec. 50131: Assistance for latest and zero building energy code adoption - \$1 billion

- Grants helping state and local governments adopt and implement building energy codes.
- \$330M for meeting 2021 IECC or ANSI/ASHRAE/IES 90.1-2019;
- \$670M for meeting or exceeding the zero energy provisions in the 2021 IECC or an equivalent stretch code.
 - (c) ZERO ENERGY CODE.—The Secretary shall use funds made available for grants to assist States, and units of local government that have authority to adopt building codes—
 - (1) to adopt a building energy code (or codes) for residential and commercial buildings that meets or exceeds the zero energy provisions in the 2021 International Energy Conservation Code or an equivalent stretch code; and
 - 2) to implement a plan for the jurisdiction to achieve full compliance with any building energy code adopted under paragraph (1) in new and renovated residential and commercial buildings, which plan shall include active training and enforcement programs and measurement of the rate of compliance each year.



CLEAN ENERGY LOAN GUARANTEES

Sec. 50141: Funding for Department of Energy Loan Programs Office - \$3.6 billion (and \$40 billion in loan guarantee authority)

- Available until 2026 for loans from DOE Loan Programs Office. Loans intended to support the commercial deployment of cutting-edge clean energy technologies.



GREENHOUSE GAS REDUCTION FUND

Sec. 60103: Greenhouse Gas Reduction Fund - \$27 billion

- EPA for a greenhouse gas reduction green bank initiative with flexible project eligibility, divided into three categories of grants to local entities to provide loans, grants, technical assistance and other financing:
 - \$7 billion in competitive grants for low-income and disadvantaged communities to utilize zero-emission technologies.
 - \$11.97 billion for competitive grants for projects that reduce or avoid greenhouse gas emissions.
 - \$8 billion in competitive grants for low-income and disadvantaged communities for climate-related activities.
- Beginning not later than 180 calendar days after the date of enactment of this section, to States, municipalities, Tribal governments, and eligible recipients



ENVIRONMENTAL JUSTICE & COMMUNITY RESILIENCE

Sec. 60114: Climate pollution reduction grants - \$5 billion

- PLANNING GRANTS.—A grant to at least one eligible entity in each State for the costs of **developing a plan for the reduction of greenhouse gas air pollution** to be submitted with an application for a grant. Each such plan shall include **programs, policies, measures, and projects** that will achieve or facilitate the reduction of greenhouse gas air pollution.
- **Not later than 270 days after the date of enactment of this section**, the Administrator shall publish a funding opportunity announcement for grants under this subsection.
- The Administrator shall make funds available to a grantee ..in such amounts, upon such a schedule, and subject to such conditions based on its performance in implementing its plan submitted and in achieving projected greenhouse gas air pollution reduction, as determined by the Administrator



ENVIRONMENTAL JUSTICE & COMMUNITY RESILIENCE

Sec. 60201: Environmental and Climate Justice Block Grants - \$3 billion

- EPA provides grants of up to three years to local governments, universities or community-based nonprofits (or partnerships of those entities) for a variety of environmental projects benefiting disadvantaged communities.
- Eligible activities include community-led pollution monitoring, prevention, and remediation; low- and zero-emission resilient technologies and related infrastructure; workforce development tied to GHG reduction; mitigating climate and health risks from urban heat islands; climate resilience and adaptation; and reducing indoor air pollution.



MANUFACTURING

Sec. 30001: Enhanced use of Defense Production Act of 1950 - \$500 million

- Bolster the domestic manufacturing of heat pumps and the processing of critical minerals.
- Possible mechanisms:
 - **Purchasing or making purchase commitments** (with guaranteed sale) of industrial resources (such as new manufacturing facilities or new manufacturing lines in existing facilities) or critical technology items;
 - Making **subsidy payments for domestically produced materials**, thus lowering the cost of manufacturing, which can be passed along to the consumer; and
 - **Installing and purchasing equipment for government** and privately owned industrial facilities to expand their productive capacity.



PUBLIC BUILDING INVESTMENTS

Sec. 60502: Assistance for federal buildings - Dollar amount: \$0.25 billion

- General Services Administration's (GSA) Federal Buildings Fund to convert GSA-owned or managed buildings to high-performance green buildings

Sec. 60503: Use of low-carbon materials - \$2.15B

- GSA through 2026 to acquire and install low-embodied carbon materials and products for use in the construction or alteration of GSA facilities. Defines low-embodied carbon materials as those defined by EPA as having substantially lower levels of embodied carbon as compared to estimated industry averages.

Sec. 60504: GSA Procurement and Technology - \$975 million





- GSA for emerging and sustainable technologies and related sustainability and environmental programs. This appears to be funding for GSA's Green Proving Ground program, which is aimed at demonstrating innovative building technologies in federal facilities to help drive down operational costs and stimulate market transformation.

SEc. 60106: Funding to address air pollution at schools - \$37.5M

- Grants and other activities through EPA to monitor and reduce air pollution and greenhouse gas emissions at schools in low-income and disadvantaged communities, with an additional \$12.5M in technical assistance to schools to address environmental issues and air pollution and to develop school environmental quality plans that include standards for building, design, construction, and renovation. Funding through 2031.



RESOURCES

-  [Rewiring America's Analysis](#)
-  [Dandelion Energy's Analysis](#)
-  [United States Green Building Council's Analysis](#)
-  [Bill Language](#)