

States are in the Driver's Seat:

How the IRA can Pave the Way to Greater Energy Equity



Moderator: Hon. Jehmal Hudson, Virginia

Speakers:

- Hon. Darcie Houck, California
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Building Distributional Equity into California's rollout of Inflation Reduction Act Rebates and Tax Credits for Home Decarbonization

Commissioner Darcie L. Houck
Commissioner of the California Public Utilities Commission
November 15, 2022



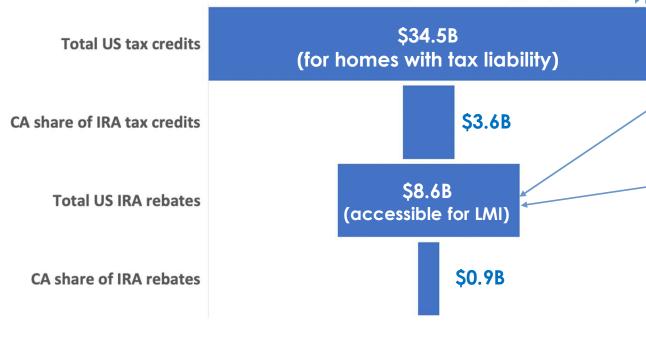
IRA rebates and tax credits are not inherently equitable. Distributional equity has to be embedded.

Motivation to be here today



Adding up IRA tax credits and rebates for existing homes energy upgrades





	BUILDIN	IGS AND ENERGY EFFICIENCY	Te .	
Program	Section	Description/Analysis	Amount	
Residential Energy Efficiency Tax Credit:	13301	Extension, increase, and modification of nonbusiness energy property credit.	\$12.541 billion	
Residential Clean Electricity Tax Credit:	13302	Residential clean energy credit.	\$22.022 billion	
Commercial Energy Efficiency Tax Deduction:	13303	Energy efficient commercial buildings deduction.	\$362 million	
New Energy Efficient Home Tax Credit:	13304	Extension, modification, and increase of new energy efficient from credit.	\$2.843 billion	
H Home Energy al Performance-Based Whole House Rebates (HOMES)	50121	Home energy performance-based, whole house rebates. Rebates for energy efficiency retrofits range from \$2,000-54,000 for individual households and up to \$400,000 for multifamily buildings.	\$4.3 billion	
GSA Federal Building Investments:	60502	Funding for GSA's Federal Buildings Fund to convert GSA owned or managed buildings to high-performance green buildings.	\$250 million	
High-efficiency electric home rebate act (HEEHRA)	50122	Funding for states to develop a high-efficiency electric home rebate program and \$225 million for Indian tribes to do the same.	\$4.275 billio	
State-based home energy efficiency contractor training grants:	50123	Funding to establish state programs providing training and education to contractors who install home energy efficiency and electrification improvements.	\$200 million	
Affordable Housing Resilience and Efficiency Investments	30002	Funding to improve energy efficiency or water efficiency or climate resilience of affordable housing.	\$1 billion	
Efficient Building Code Adoption Grants:	50131	Assistance for latest and zero building energy code adoption.	\$1 billion	

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https://www.progressivecaucuscenter.org/climate-and-energy-provisions-in-the-inflation-reduction-act

Even with billions in funding and means testing for rebates, IRA is not guaranteed to go to those who need them most.

- While the specifications of means testing are still being considered, currently a single person in Palo Alto, CA making \$170k/yr qualifies for IRA rebates, but the median CA income is \$33,000. Who is most likely to go through testing to use the rebates, the home earning \$170k or \$33k?
 - <u>Published research has shown that high income households use IOU</u>
 energy efficiency rebates at a disproportionately high level while low income
 households are disproportionately **under-benefiting**.
- IRA HEEHRA rebates are capped at \$14,000/home, IRA HOMES performance rebates are \$4,000-\$8,000, and IRA tax credits (for those with enough tax liability to use them) are capped at \$2,000/year. A full decarbonization upgrade in CA starts at \$30,000 WITHOUT health and safety repairs. HEEHRA and HOMES cannot be combined with each other but both can be combined with tax credits.
- IRA thus <u>leaves a funding gap</u> that represents an insuperable barrier to LMI households.

The federal funding gap is mirrored by a state funding gap despite CA's big spending

• CA IRA rebates are too small for the need and even in the aggressive new TECH Initiative program, LMI households are only 6% of participants.



The funding gap is a barrier to participation and it's why the CPUC has opened the Clean Energy Finance Rulemaking (R.20-08-022) among others on affordability

Households reached with available taxpayer or ratepayer funding is limited

Everyone else is left without funding or finance

Households
that are
qualified
and willing
to access
loans is
limited

What fiscally sustainable financial solutions can assure that every household has at least one accessible and acceptable option to pay for cost effective energy upgrades?

Rulemakings in progress

CA's current efforts to ensure that those who need it most can participate in the clean energy economy first



Clean Energy Finance Proceeding (R.20-08-022)

- To make participation easy and to fill the funding gap for decarb upgrades, the following attributes are key:
 - Be universally available, i.e., have no qualification criteria (income/credit/property ownership) so that low, middle, and high income can all participate
 - Prioritize order to LMI homes
- Next slide will show you one project proposal that is on its way in CA

Topic 3: Designing Scalable Financing Options

- 1. Which specific types of customer-side clean energy financing programs or lending mechanisms are most likely to attract third-party vendors and program administrators, and what advantages and disadvantages would these financing programs provide in comparison to programs or lending mechanisms administered by existing administrators, the IOUs, or other implementers?⁸
- 2. How can on-bill repayment (OBR) mechanisms be leveraged to repay multiple lenders without putting a customer at risk of utility disconnection if they are unable to make loan payments?
- 3. How can we deploy outreach to ensure consumers considering clean energy financing are aware of their rights and the pros and cons of the various available financing options?
- 4. Which financing and consumer protection mechanisms best protect customers from potential disconnection, interruption of service, loss of lease or mortgage, or liens, in instances of non-payment of utility bills?
- 5. Should any existing cost effectiveness thresholds apply to new energy financing programs, or should energy financing programs be treated differently from energy efficiency financing programs in terms of their cost effectiveness?

Silicon Valley Clean Energy Tariffed Based Inclusive Utility Investment Pilot (See EPA website below)

- Utilities using their tariffed authority to make site specific investments in home upgrades no matter the income, credit score, or renter status
- Utilities pay for the part of the upgrade that is cost effective and then layer on state incentives and rebates plus IRA so the customer does not have to
- Utility program implementor coordinates the upgrade so the customer does not have to interact with contractors
- Utility program implementor determines upgrade measures for each house and passes that scope of work to contractors so there is no incentive to upsell
- Leverages low cost of capital and volume purchasing



Save at Home

FOR PARTNER

Home » Energy Efficient Products » Inclusive Utility Investment

Inclusive Utility Investment

Expanding access to comprehensive efficiency and electrification upgrades

Find Products

Increasing access to energy efficiency and electrification retrofits for all buildings, especially households, is critical to addressing energy inequity in the United States and to solving the global climate crisis. Inclusive Utility Investment is a promising approach to expanding access to cost-effective more comprehensive [1] efficiency and electrification upgrades for all customers, including those that are often underserved by utility energy efficiency programs.

Inclusive Utility Investment is a proven (yet underutilized) model among Rural Electric Cooperatives and gaining traction and interest

- It enables utilities to make site-specific investments in building efficiency upgrades on the customer's side of the meter with site-specific cost recovery.
- · It can pay the upfront costs for 100% of efficiency upgrades that are estimated to produce immediate net savings,
- Unlike consumer loan programs, all customers are eligible regardless of income, credit standing, or status as a building owner or tenant.
- Utility cost recovery is achieved through a tariffed charge on the utility bill tied to the location rather than an individual, and
- Successor customers at an upgraded site are notified that the cost recovery charge applies automatically to the bill until the
 utility's costs are recovered.

[1] Many utility efficiency programs focus on single measure and/or low-cost energy efficiency upgrades such as lighting. More comprehensive programs are those that address the major end uses in the home such as water and space heating, and ideally target more than a single measure.

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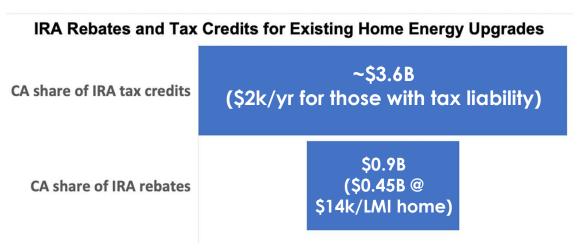
R. 20.08.022; https://www.energystar.gov/products/inclusive utility investment

California Case Study

Modeling 2 scenarios: IRA rollout with and without state guardrails designed for distributional equity



How far will IRA go in CA without increased state funding and stronger equity policies? Spoiler alert: IRA barely makes a dent towards goals to electrify all



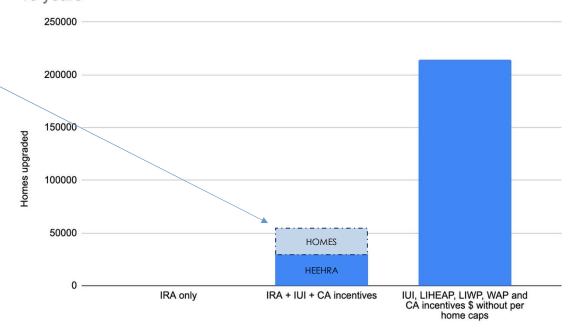
- IRA tax credits alone do not fully upgrade any CA homes since it only marginally discounts the cost by \$2,000/yr., a household can receive tax credits up to \$5,800 if upgrades are distributed across years
- IRA rebates alone do not fully upgrade any CA homes since it only <u>partially</u> covers the \$30k cost

Combined, CA's IRA tax credits and rebates are only 1% of the monies needed for fully decarbonizing all 14M CA homes. CA would need an additional \$414B to fully decarbonize all homes. Therefore, we must use the IRA moment to build investment systems with embedded distributional equity that will go on after IRA is exhausted

How much farther will IRA go in CA if paired with state programs and equity policies? (i.e., add Inclusive Utility Investment and State incentives to make upgrades truly no upfront cost)

- CA goes from partially upgrading LMI homes with IRA alone to upgrading 32,000 homes and accessing \$450M in federal HEEHRA funds
- To access <u>any</u> of the \$450M HOMES rebates for LMI residents at no upfront cost, CA will need to provide an additional \$4k to \$10k in rebates (\$128M-\$320M) to fully upgrade remaining LMI homes
- After IRA fund are expended, for example, CA could upgrade an additional 200K LMI homes substituting weatherization program funds, but only if it pooled all CA funding sources and eliminated the programs current per home limits
- After upgrading all these homes still more than 90% of CA LMI homes could remain unimproved

CA LMI homes fully electrified when IRA is rolled out alone vs. paired with IUI and CA state incentives vs with Wx funds substituting for IRA over next 10 years





To decarb all LMI homes, funding gap is still large.

- Even with IRA, CA rebates, and Inclusive Utility Investment, there is still a funding gap. IUI will provide <u>much</u> more funds in states with more severe weather.
- Reaching everyone requires new investment approaches, not just financing options because not everyone can take on significant new debt obligation
- Any new approach should have the following attributes:
 - The onus to cover the funding gap is not on low-income individuals
 - No income/credit/renter checks
 - Bill savings, not increases
 - Consumer protections including tenant protections
 - Carve out for tribal lands and disadvantaged communities (e.g., San Joaquin Valley Pilot)
 - Funding for community orgs to lead neighborhood outreach
 - · Contractor and electrician workforce development

California's Unfunded Investment Requirements to Decarbonize 2.9 Million Low Income Homes over 10 Years \$90,000,000,000 \$80,000,000,000 \$70,000,000,000 \$60,000,000,000 Gap \$50,000,000,000 \$40,000,000,000 IUI \$30,000,000,000 \$20,000,000,000 \$10,000,000,000 Total with IUI Total without IUI Landlord contribution ■ Inflation Reduction Act CA 2022 state budget CA incentives and direct install programs ■ Inclusive Utility Investment contribution ■ Funding gap

IRA is VERY regressive! EE and CE dollars could go disproportionately to the wealthy

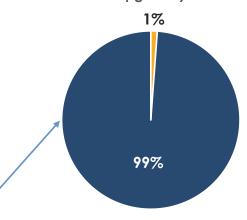
- In the most likely scenario only a fraction of the HEEHRA rebates go to LMI household since eligibility is <150% of AMI
- All other rebates and tax credits will go to wealthier households. Most probably to the wealthy who have \$10k to \$15k available to pay the costs not covered by the rebate
- State legislatures and commissions should consider reallocating their funds to redress this imbalance to the degree possible.



Takeaways

- State IRA rollout should include equity protections.
- Those state protections should embed distributional equity by:
 - 1. Making it less laborious to claim the rebate
 - Universal eligibility remove income/credit checks and property ownership requirements. Instead, use census data to prioritize areas with homes that need it most
 - 2. Filling the gap in upfront capital with state and other monies/investment strategies to make home decarbonization upgrades a no-upfront-cost-option for LMI households and renters
 - Use Inclusive Utility Investment to fill the capital stack not covered by IRA and add more state rebates to make up any leftover funding gap.
 - 3. Have a working system of investment in place to prepare for when IRA is exhausted, which will be soon since it's only ~1% (32,000 homes) of funds needed to fully upgrade LMI homes, not to mention all 14M homes in CA
 - State Energy Office could coordinate future federal and state rebates and combine it with ongoing Inclusive Utility Investment programs that prioritize homes that need it most

IRA Rebates Cover Barely 1% of the Funding Need to Electrify just CA's 3.3M LMI Homes (Assuming \$30,000/home without H&S upgrades)



■ IRA Rebates Contribution ■ Other Capital Needed



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Inflation Reduction Act: Support for Communities

Taresa Lawrence, Office of Policy, U.S. Department of Energy

2022 NARUC Annual Meeting and Education Conference



IRA Delivers Historic Firsts

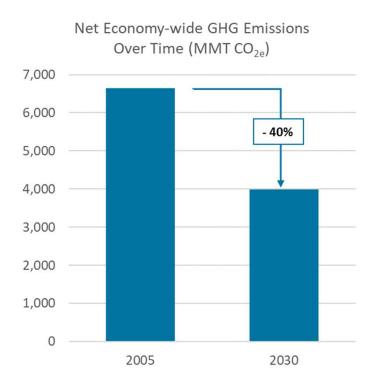
- Most comprehensive climate and clean energy investment in American history
- Provides long-term stability to domestic clean energy producers, manufacturers and investors
- Delivers historic focus on domestic job creation, with strong incentives for prevailing wages and apprenticeships
- Provides consumers with incentives worth thousands of dollars in home and transportation energy cost savings
- Benefits low- and middle-income consumers, historically underserved communities, and communities most impacted by transition to clean energy
- Projected to lead to ~40% greenhouse gas emissions reductions below 2005 levels by 2030



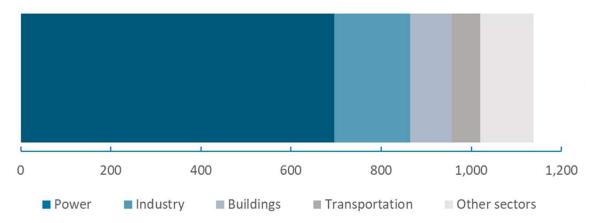
energy.gov/policy

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IRA and BIL's ~40% GHG pollution reduction helps position U.S. to reach overall climate goals



Estimated Emissions Reductions in 2030 from Inflation Reduction Act and Bipartisan Infrastructure Law (2030, MMT CO_{2e})



The Inflation Reduction Act Drives Significant Emissions Reductions and Positions
America to Reach Our Climate Goals | Department of Energy

Environmental Justice

- Historic investments in clean air, clean transportation & ports, and clean-up of toxic pollution with more than
 \$60 billion to stimulate investments in disadvantaged communities, including
 - ✓ **\$27 billion** for a new Greenhouse Gas Reduction Fund to fund a National Green Bank that will provide grants and loans for clean energy projects and businesses (e.g. solar gardens) that can cut air pollution.
 - √ \$5 billion for Climate Pollution Reduction grants (EPA) that will help communities develop and implement programs, policies, and projects that will help reduce air pollution
 - √ \$3 billion for Environmental and Climate Justice block grants (EPA) to fund community-led projects that reduce pollution including: pollution monitoring and remediation; support for community engagement; and investing in low and zero emission technology.
 - ✓ **10% to 20% bonus investment tax credit** for wind and solar projects located in and benefiting low-income and environmental justice communities.



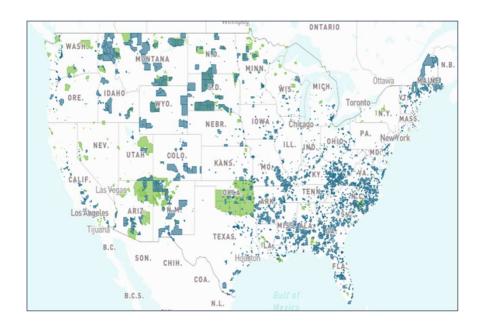
• USDA programs like the **Rural Energy for America (REAP)** can help rural businesses finance efficiency improvements and renewable energy systems



Justice 40 Initiative

Goal that 40% of the overall benefits of certain Federal investments must flow to disadvantaged communities, including:

- Investments in clean energy and energy efficiency
- Remediation and reduction of legacy pollution
- Development of clean water infrastructure
- Affordable and sustainable housing
- Training and workforce development
- Climate change
- Clean transit



Environmental and Climate Justice Block Grants

 \$3 billion new EPA program to support community-led projects to address disproportionate environmental and public health harms related to pollution and climate change

Eligible Activities

Community-led projects that help reduce GHG and other air pollution:

- Pollution monitoring, preventing, and remediation
- Investments in low- and zero-emissions technologies and infrastructure
- Workforce development

Mitigating climate and health risks from urban heat islands, extreme heat, wood heater emissions, and wildfires

Climate resiliency and adaptation

Reducing indoor toxics and indoor air pollution

Facilitating engagement of disadvantaged communities in State and Federal advisory groups, workshops, rulemakings, and other public processes



Allocated Environmental Justice Bonus

- Additional investment tax credit bonus for clean electricity projects benefiting environmental justice communities.
- These bonuses cannot stack with each other but can stack with the energy community and domestic content bonuses.
- Limited to 1.8 GW/year total, and to projects 5 MW or smaller.

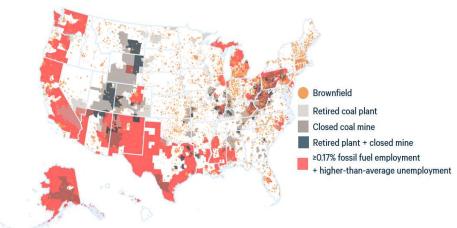
Category	Bonus Credit		
Located in low-income community	10 percentage points		
Located on Indian land	10 percentage points		
Located on a low-income residential building (includes buildings supported by tribally designated housing entity)	20 percentage points		
Projects that provide over 50% of total financial benefits to low-income households	20 percentage points		



Energy Community Tax Credit Bonus

IRA reinvests in energy communities to create new opportunities in the transforming energy economy

- Bonus credit available for clean electricity projects located in communities that have previously hosted fossil energy infrastructure, including retired coal plants and coal mines.
 - Bonus is a 10% increase in the production credit or a 10 percentage points increase for the investment credit.
 - This bonus credit can stack with other bonus credits for domestic content and environmental justice.
- \$4 billion in tax credits for advanced energy manufacturing projects located in energy communities.
- \$5 billion in funding to guarantee loans (up to \$250 billion total) for projects that repurpose idled energy infrastructure (such as retired power plants) or reduce emissions at operating energy infrastructure.



Preliminary external assessment of potential energy communities. IRS will have final determination of identifying qualifying energy communities.



Greenhouse Gas Reduction Fund

- New EPA program to make competitive awards to fund green banks around the country.
- Prioritization on supporting projects that benefit and reduce air pollution and GHG emissions in disadvantaged communities.
- Funds must leave EPA by the end of FY 2024.

Category	Budget (\$B)	Eligible Entities			
Deploying Zero-Emission Technologies	\$7	Tribal governments, States, municipalities, other non-profits			
Low-Income and Disadvantage Communities	\$8	Non-profit green banks			
General Assistance	\$12	Non-profit green banks			

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Climate Pollution Reduction Grants

- \$5 billion new EPA program to support GHG emission reduction plan development and implementation
 - Planning Grants: \$250 million in grants to support development of GHG emissions reduction plans.
 - Performance Awards: \$4.75 billion in competitively awarded grants to carry out plans, based on performance in implementing plan
- Eligible awardees include Tribes, States, municipalities, air pollution control agencies, or a combination of the above.



Rural Communities

IRA makes specific investments to expand access to affordable clean energy and energy efficient upgrades in rural communities:

- Over \$2 billion in grants and loans under the Rural Energy for America Program for agricultural producers and rural small businesses to install renewable energy and energy efficiency measures.
- \$1 billion appropriated for the cost of loans from USDA to electricity providers for renewable energy and energy storage projects.
- \$9.7 billion for financial assistance from USDA to electric cooperatives for the purchase of renewable energy, energy efficiency, carbon capture, and zero-emission systems.



Workforce and Labor

- IRA will stimulate clean energy investment projected to support nearly 1 million jobs annually.
- A large majority (~75%) of these jobs won't require a four-year college degree.
- To realize the full benefits of these incentives, companies must pay prevailing wages and offer apprenticeship opportunities
 - Apprenticeships change lives by allowing workers to train on the job while getting paid and receiving benefits.
 - Apprenticeship programs in the U.S. result in a 47% increase in income for females and 30% increase for males.
- Companies that adhere to these labor standards will receive incentives 5x greater than those that do not.



Workforce and Community Agreements

- Describe the applicant's plans to engage with labor unions, Tribal governments, and communitybased organizations representing local stakeholders including disadvantaged communities.
- Describe plans to negotiate formal workforce and community agreements to detail benefits, partner obligations, and remedies to ensure accountability.





Community Benefits Plan: Four Priorities & Intersecting Goals

Justice 40

 Meet or exceed the objectives of the Justice40 initiative that 40% of benefits accrue to disadvantaged communities.

Diversity, Equity, Inclusion, and Accessibility

 Equitable access to wealth building opportunities (teaming, access to good jobs, business and contracting opportunities, etc.).

Good Jobs

 Create good-paying jobs to attract and retain skilled workers and ensure workers have a voice on the job over decisions that affect them (wages, working conditions, safety, etc.).

Workforce and Community Agreements

 Meaningful engagement with community and labor partners leading to formal agreements.





Community Engagement Points in DOE Project Cycle





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Thank you!

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Inflation Reduction Act

Environmental justice gaps

Sylvia Chi / sylvia@justsolutionscollective.org
November 15, 2022











The Inflation Reduction Act

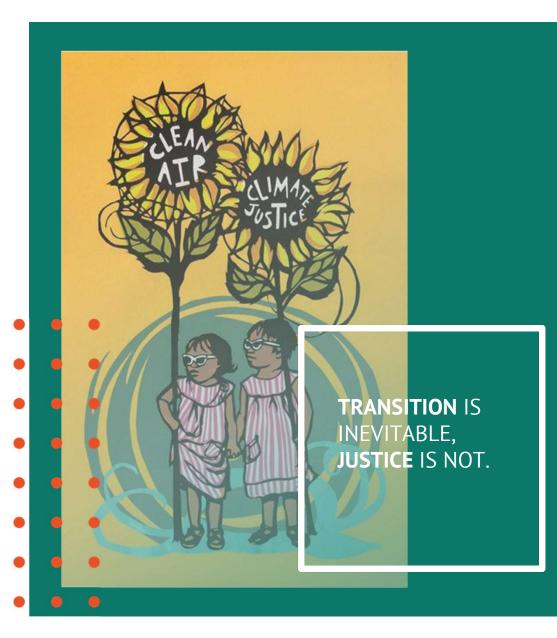
\$60 billion for "environmental justice"?

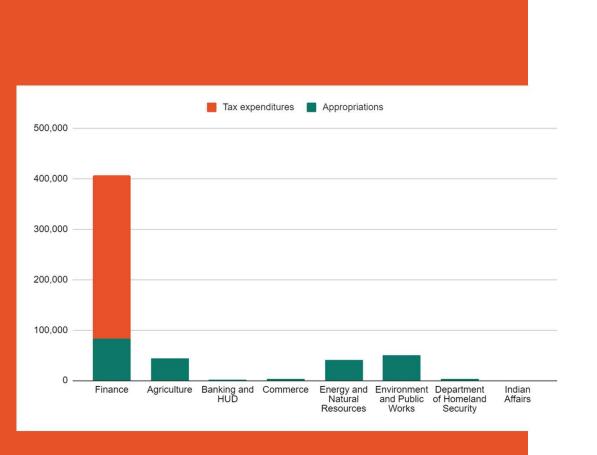
Environmental justice

Environmental justice is the fair

treatment and meaningful

involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.



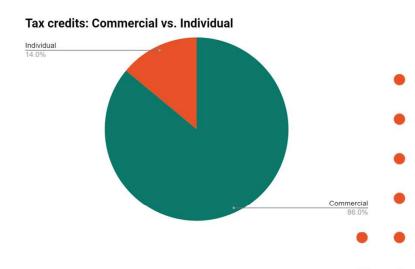


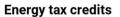
Overall: \$324B in tax credits \$228B in appropriations

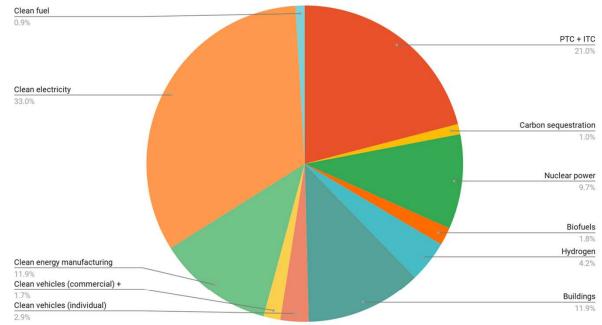
- **\$271B** in enviro/climate tax expenditures
- **\$145B** in enviro/climate appropriations
- \$13B in Superfund + Black Lung Disability Trust Fund

\$271 billion in









Tax credits benefit the rich

- Residential energy (25C) credits
 - \circ 60% \rightarrow top 20%
 - \circ 11% \rightarrow bottom 60%
- Plug-in EV (30D) credits
 - \circ 89% \rightarrow top 20%
 - \circ 1% \rightarrow bottom 60%

Table 2: Distributional Effects of Selected Tax Credits

	Percent of Credit Received by Income Category (in thousands)						Concentration Index
	\$0- \$10	\$10- \$20	\$20- \$40	\$40- \$75	\$75- \$200	\$200 +	Index
Pan	el A. Cl	ean Ene	ergy Tax	Credit	s		
Residential Energy Credits	0%	1%	10%	28%	48%	14%	0.606
Alternative Motor Vehicle Credit	0%	1%	9%	32%	47%	11%	0.584
Plug-in Electric Drive Vehicle Credit	0%	0%	1%	10%	54%	35%	0.801
Par	nel B. O	ther Ma	jor Tax	Credits			
Earned Income Tax Credit	18%	49%	32%	1%	0%	0%	-0.415
Making Work Pay Credit	7%	14%	25%	28%	26%	0%	0.163
Child Tax Credit	2%	13%	31%	31%	23%	0%	0.185
First-time Home Buyer Credit	7%	6%	23%	40%	24%	1%	0.222
Foreign Tax Credit	0%	0%	1%	2%	9%	88%	0.954

Note: This table was constructed by the authors using U.S. Department of the Treasury, Internal Revenue Service, "Statistics of Income, Individual Tax Returns," 2005–2012. The first five income categories are approximate quintiles (18%, 17%, 24%, 21%, 18%), and 3% of tax returns fall in the last category. Residential energy credits includes both the NEPC and the REEPC. The Earned Income Tax Credit, Making Work Pay Credit, Child Tax Credit, and the First-Time Home Buyer Credit are all refundable, while the Foreign Tax Credit is not. See Appendix A for details.



What counts as EJ in the IRA?

Included

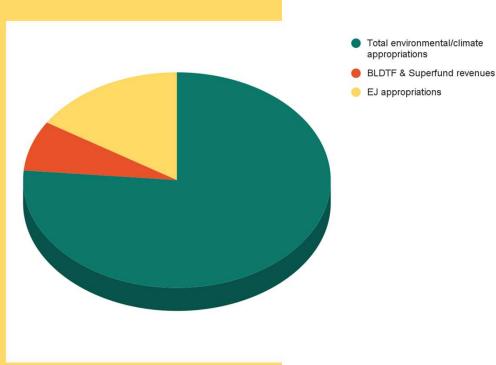
- Required carveouts for low-income or disadvantaged communities
- All Tribal and insular area funding
- Other justice- and transition-oriented programs
 - Greenhouse Gas Reduction Fund carveouts (\$15B)
 - Superfund reauthorization (\$12B)
 - USDA discrimination financial assistance (\$2.2B)
 - Grants to reduce air pollution at ports (\$3B)

Excluded

- **Optional** spending on underserved, low-income or disadvantaged communities
- Targeting for LMI **homeowners**
- Funding for general permitting activities
- HOMES rebates (\$4.3B)
- Entire "Low emissions electricity program" section (\$87M) when only \$17M is carved out for DACs
- Implementation of NEPA and oversight funding

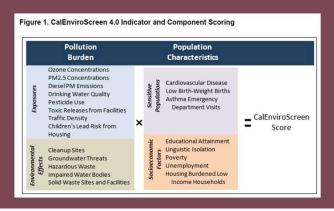
\$40 billion for environmental justice = 12%

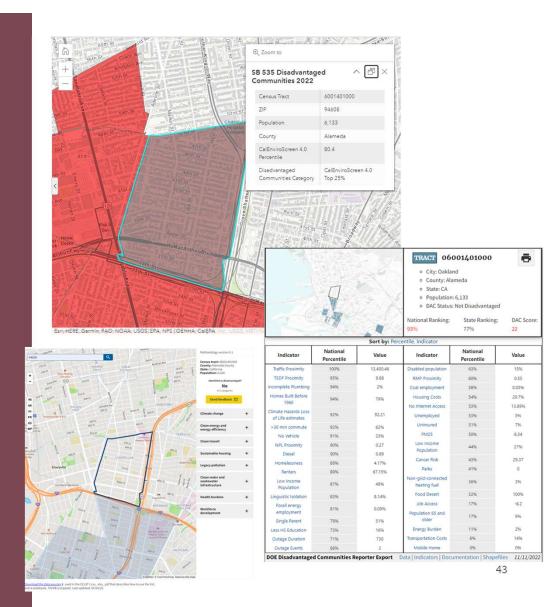
\$145 billion in direct environmental & climate appropriations



Low-income and "disadvantaged communities"

- Scientific literature: Socioeconomic and other factors are "effect modifiers" that can increase health risk of pollutants
- **Risk assessment**: Multipliers to account for potential sensitivity and data gaps in deriving acceptable exposure levels
- **Risk scoring**: Risk = Threat x Vulnerability



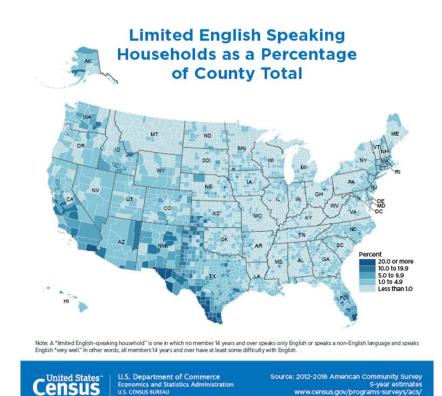


How to benefit more renters and low-income households?

- Outreach and education through partnerships with community-based organizations
 - Point-of-sale HEEHRA rebates for portable appliances (window-unit heat pumps, induction cooktops)
- Outreach and TA to eligible building owners about HUD's Green and Resilient Retrofit
 Program
- Financing through **Greenhouse Gas Reduction Fund** + use of **tax credits** to invest in projects that *meaningfully benefit* EJ communities (community solar + storage)
- Incentives or requirements for landlord participation
- Incorporate renter protections to avoid green gentrification

Meaningful involvement

- Transparency
- Accessibility
 - Technology
 - o Timing
 - Language access
 - Intervenor compensation
 - Technical assistance
- Proactive engagement



Thanks!

Just Solutions Collective

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