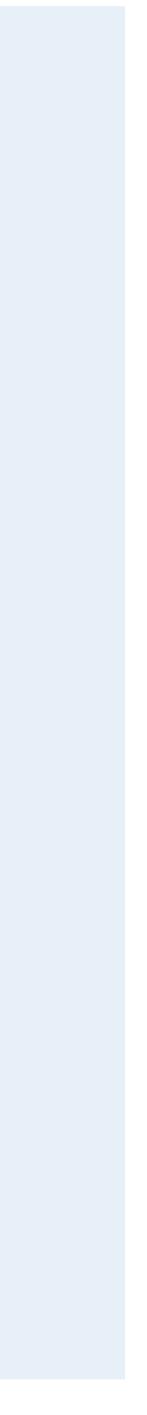
energy circle

Peter Troast, Founder & CEO Cory Allyn, Senior Content Strategist

August 9, 2023

# WHAT'S IN THE NEW STATE **GUIDELINES FOR IRA REBATES:**

THE CONTRACTOR PERSPECTIVE



### **Ongoing Focus on the Implications of AI**



#### THINKING ABOUT AI IN **HVAC & HOME PERFORMANCE:**

VIRTUAL ASSI FOR COMPLE

Peter Troast, Fou

March 29, 2023

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OF AI:

Pete

May

WHAT WILL CHANGE FOR CONTRACTORS AND THE CUSTOMER JOURNEY?



#### WEB SEARCH IN A WORLD



#### **VIDEO MARKETING IN A** WORLD OF AI:

WHY THE HUMAN COMPONENT IS CRITICAL FOR SUCCESS

Peter Troast, Founder & CEO Jake Van Paepeghem, Senior Media Producer

July 26, 2023



#### **CONTENT IN THE AI AGE:**

STRATEGIES FOR NAVIGATING A SEA OF ROBOT-DRIVEN WRITING

Peter Troast, Founder & CEO Cory Allyn, Senior Content Strategist

July 11, 2023



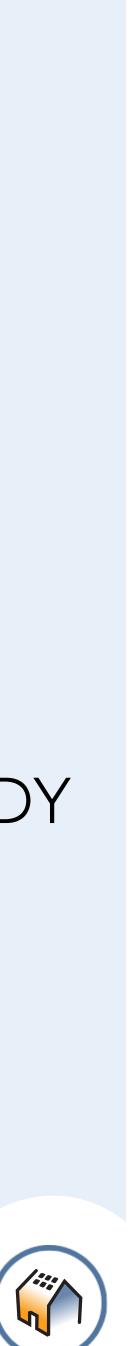
### What We'll Discuss

 CREDITS
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HIGH PO WHAT'S I CONTRA
OUR REC TO TAKE

QUICK SUMMARY OF IRA REBATES & TAX CREDITS

HIGH POINTS FROM THE DOE GUIDELINES— WHAT'S MOST IMPORTANT FOR CONTRACTORS

OUR RECOMMENDATIONS ON GETTING READY TO TAKE ADVANTAGE



# VERY QUICK SUMMARY OF THE IRA'S KEY PROVISIONS





### 25C—Energy 2032 **Efficient Home Improvement Tax** Credit

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Credit revived and made retroactive for 2022 (at original 10%)

Starting in 2023, credit increases to 30% of total installation costs through

Lifetime cap of \$500 will be replaced by cap of \$600 per measure, with \$1,200 annual total limit (exceptions listed below)

Eligible services and home improvements include:

Heat pumps and heat pump water heaters (\$2,000 credit)

Insulation and air sealing

Energy audits (\$150 credit)

Energy-efficient HVAC systems (including furnaces, boilers, and central

Electrical panel upgrades

Energy-efficient windows and doors (\$500 credit for doors)

Roofs are no longer eligible



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- 2032
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Electrical panel upgrades

Energy-efficient windows and doors (\$500 credit for doors)

Roofs are no longer eligible



### **\$4.3 Billion in HOMES Rebates**

- rebates

• Rebates up to **\$4,000** for home energy efficiency retrofits with modeled or measured energy savings of 35% or more (or **\$2,000** for 20-34% energy savings)

• Services can include insulation, air sealing, heat pump/HVAC upgrades, and more

• Additional rebates up to **\$8,000** available for low and moderate-income homeowners

• Rebates cannot be combined with other federal grants or

• Depending on location, state/local rebates may stack



## **\$4.5 Billion High Efficiency Electric Homes Rebates**

- Rebates for **low and moderate-income homeowners** for electric system/appliance purchases and energy efficiency
  - upgrades
- Maximum rebate of **\$14,000**; individual rebates:
  - O Heat pump water heaters: \$1,750
  - O Heat pump HVAC systems: \$8,000
  - Electric stoves: \$840
  - O Heat pump clothes dryers: \$840
  - O Electrical panel upgrades: \$4,000
  - O Insulation, air sealing, and ventilation: \$1,600
  - O Electric wiring: \$2,500



## DOE'S GUIDELINES: WHAT'S MOST IMPORTANT FOR CONTRACTORS





Home Efficiency Rebates Program (Sec. 50121) Home Electrification and Appliance Rebates Program (Sec. 50122)

U.S. Department of Energy Office of State and Community Energy Programs 1000 Independence Avenue, SW Washington, DC 20585

July 27, 2023

Sign up for updates and learn more:

#### INFLATION REDUCTION ACT HOME ENERGY REBATES

PROGRAM REQUIREMENTS & APPLICATION INSTRUCTIONS Applications Due by January 31, 2025





### **Establishing Qualified Contractor Networks**

### **Contractors and other partners**

A qualified contractor list is a required element of a State's Consumer Protection Plan. States must:

- Describe how the program will initially develop the qualified contractor list.
- insurance and licensure, skills standards, and labor standards.
- 50123.
- which a contractor would be delisted.
- •
- improvements before investments are made in mechanical equipment.

Describe which qualification(s) that contractors will be held to, potentially including but not limited to home performance industry credentials, training requirements, business

 Describe the process by which contractors will be added to the qualified contractor list, including how implementers will review and consider contractors trained under IRA

Describe the conditions that would lead to a contractor being delisted and the process by

Describe how the State program will ensure energy savings are calculated using allowable methods according to the statute, including how approved tools/software will be identified, and how contractors will be alerted to these tools and trained on proper use. Describe how the State will educate contractors and building owners to invest in envelope



### The "Quick Start" Option

#### 4.3.3. Program Requirements: Quick Starts

A State may apply for up to 25% of its allocated funds to develop a "Quick Start" State program. DOE will prioritize processing of applications identified for a "Quick Start." To qualify as a "Quick Start" program, the State must note at the beginning of its application the request for a "Quick Start," and the State must plan to achieve rebate program launch in 2023. A State Application for a Quick Start must include responses to all "Application Requirements" (cannot defer to Implementation Blueprint); however, the required plans may be submitted prior to rebate program launch as part of the Implementation Blueprint. All rebate program requirements (except low-income and low-income multifamily allocations) will apply to Quick Start programs, and a conforming State Application is required. A State is not required to reserve rebate funds for low-income and low-income multifamily households (see section 3.1.3) as part of a Quick Start program; however, a State must meet the low-income and low-income multifamily households (see section 3.1.3) as part of a Quick Start program; however, a State must meet the low-income and low-income multifamily households (see section 3.1.3) as part of a Quick Start program; however, a State must meet the low-income and low-income multifamily households (see section 3.1.3) as part of a Quick Start program; however, a State must meet the low-income and low-income multifamily households (see section 3.1.3) as part of a Quick Start program; however, a State must meet the low-income and low-income multifamily households (see section 3.1.3) as part of a Quick Start program; however, a State must meet the low-income and low-income multifamily households (see section 3.1.3) as part of a Quick Start program; however, a State formula allocation.

Prior to January 31, 2025, a State must either (a) request additional funding from its total formula allocation to continue its approved Quick Start program or (b) submit an application to DOE to administer a program operating under a different plan; otherwise, the remaining formula allocation will be considered rejected by the State and redistributed to other State Energy Offices in accordance with 42 U.S.C. 18795a(a)(2)(C).

One option for a Quick Start program is to develop a program which leverages existing program infrastructure in the State to achieve more rapid rebate program launch. Where consistent with Section 50122 program requirements, States have the discretion to limit the scope to target specific populations, policy goals, or other State priorities to achieve more rapid rebate delivery. To expedite processing, a State must note at the beginning of its application the request for a

"Quick Start." The application must identify the existing program(s) to be leveraged and must include a timeline to achieve rebate program launch in 2023. The use of an existing State program may allow a participating State to more quickly stand-up Home Electrification and Appliance Rebates relative to developing a new program. For example, a State may rely on practices, policies, procedures and / or systems already in place to implement a Section 50122 State program that is consistent with design requirements for Section 50122. States may reference or include information regarding existing programs as part of the application to demonstrate compliance with the requirements.



Another option for a Quick Start program is for a State to pilot a rebate program before committing the State's entire funding allocation to a particular program design. Where consistent with Section 50122 program requirements, States have the discretion to limit the scope to target specific populations, policy goals, or other State priorities to achieve more rapid rebate delivery.



### Low Income Allocation Requirements (aka Carve Outs)

### 7.0 Appendix A: Required Allocations

State/ Territory	Home Energy Performance- Based, Whole- House Rebate Allocations	Max 20% Ceiling for Program Administration for Efficiency Rebates	% of Low- Income Households (<80% AMI) in the State <sup>68</sup>	Min Allocations for Low-Income HHs	Min 10% Low- Income Multifamily Allocation	Max Open Efficiency Rebate Allocation
Alabama	\$73,032,210	\$14,606,442	41.0%	\$17,948,606	\$4,381,933	\$21,488,787
Alaska	\$37,368,480	\$7,473,696	39.1%	\$8,770,600	\$2,242,109	\$11,408,379
Arizona	\$76,868,720	\$15,373,744	39.7%	\$18,304,471	\$4,612,123	\$23,204,638
Arkansas	\$52,739,720	\$10,547,944	40.5%	\$12,818,025	\$3,164,383	\$15,661,424
California	\$291,951,040	\$58,390,208	40.7%	\$71,223,025	\$17,517,062	\$86,430,537
Colorado	\$70,395,350	\$14,079,070	39.6%	\$16,728,857	\$4,223,721	\$21,284,632
Connecticut	\$49,830,560	\$9,966,112	40.8%	\$12,212,612	\$2,989,834	\$14,695,890
Delaware	\$33,029,650	\$6,605,930	39.8%	\$7,879,555	\$1,981,779	\$9,956,456
District of Columbia	\$29,808,850	\$5,961,770	41.4%	\$7,408,229	\$1,788,531	\$8,688,550
Florida	\$173,668,720	\$34,733,744	40.2%	\$41,887,561	\$10,420,123	\$51,893,547
Georgia	\$109,817,290	\$21,963,458	40.5%	\$26,691,337	\$6,589,037	\$32,610,000
Hawaii	\$34,293,520	\$6,858,704	39.8%	\$8,198,017	\$2,057,611	\$10,320,484
Idaho	\$40,604,320	\$8,120,864	39.1%	\$9,519,075	\$2,436,259	\$12,407,258
Illinois	\$132,219,190	\$26,443,838	40.4%	\$32,088,694	\$7,933,151	\$39,309,669
Indiana	\$91,302,840	\$18,260,568	40.0%	\$21,920,629	\$5,478,170	\$27,382,905
lowa	\$60,827,450	\$12,165,490	39.7%	\$14,475,261	\$3,649,647	\$18,371,562
Kansas	\$52,971,870	\$10,594,374	39.9%	\$12,680,332	\$3,178,312	\$15,924,478

#### Table 13. Home Energy Performance-Based, Whole-House Rebate Allocations (50121)



### **Home Assessments**

#### HOMES

#### 3.2.2. Program Requirements: Home Assessments

Home assessments are an important component of consumer protection to better understand the potential risks and benefits to a household pursuing an energy upgrade project. Through observation and documentation of a home's pre-condition, consumers can make informed decisions to avoid upgrades that may not produce utility bill savings or may require additional upgrades to be safe and effective. Assessments also protect taxpayer funds from being spent on unallowable expenditures.

An assessment is required for every single-family home and multifamily building receiving Home Efficiency Rebates. State programs are required to establish basic requirements that ensure each home assessment:

 Complies with the steps and procedures for home energy auditing in accordance with ANSI/BPI 1100-T-2023 and ANSI/BPI 1200-S-2017, except that the Cost Benefit Analysis is

not required. If a Cost Benefit Analysis is performed, it shall be for consumer information only, must project total household energy consumption, and must, at a minimum, be presented in terms of reduced energy costs.

- Collects required information. Data requirements may differ depending on whether the project is deemed eligible through the modeled or measured energy savings program paths.
- At a minimum, the home assessor must collect and/or produce the following data points: Unique home identifier (e.g., address).
- Dwelling type.
- Performance/efficiency of the home and its components, materials (such as insulation), and systems (potentially including but not limited to equipment type, age, fuel source, efficiency level, R-value, air leakage rate, etc.).
- Identification of existing equipment/materials/systems to be replaced.
- Identification of new equipment/systems/materials being proposed for installation.
- Estimated total project cost as defined in section 2.1.
- Identification of the tool/software used to produce the energy cost estimate.
- Written acknowledgement from the consumer of the proposed project's estimated impact on household energy costs and consumption including estimate of the energy savings in dollars in year one based on current utility rates at the home.
- Written acknowledgement from the consumer of the amount they will owe not covered by the rebates.
- Estimated Post-Retrofit Energy Consumption of the proposed project, in a manner consistent with section 3.2.3.1.
- Estimated energy savings attributable to the proposed project, calculated in a manner consistent with section 3.2.3.1.
- Datapoints as required per the State's requirements to retain data in section 3.2.4.
- All other datapoints listed as required in the <u>Data & Tools Requirements Guide</u>.

#### HEERA

#### 4.2.4. Program Requirements: Home Assessments

Home assessments are an important component of consumer protection to better understand the potential risks and benefits to a household pursuing an upgrade. For the Section 50122 program, home assessments in specific installations can ensure the consumer receives a quality installation. In addition, States must ensure that consumers are aware where certain QEPs could result in unintended consequences, including increased utility bills due to fuel switching.

As an initial matter, a State must identify a pre-defined set of home pre-condition(s) and/or scope of work scenario(s) that will constitute unacceptable risk of raising utility bills based on the State's rate structure, existing equipment and fuel type, and other relevant factors.

To mitigate these risks, States are required to conduct a limited home assessment for the installation of QEPs that include any of the following upgrades:

Electric heat pump for space heating and cooling

A limited home assessments consists of, at a minimum:

- A recommendation of a properly sized unit recommended by a qualified contractor for HVAC.
- An onsite visual inspection of the existing condition of duct sealing for HVAC & envelope.
- If the upgrade includes a fuel switch, an estimate of utility bill impacts and written acknowledgement by the consumer.
- Written acknowledgement from the consumer of the amount they will owe not covered by the rebates.
- If the upgrade falls within one of the State's pre-defined set of home pre-condition(s) and/or scope of work scenario(s) that will constitute unacceptable risk of raising utility bills, an estimate of utility bill impacts and written acknowledgement by the consumer.
- Collection of the following data points:
  - Unique home identifier (e.g., address)
  - o Dwelling type
  - Existing energy equipment/systems to be replaced, if any
  - o New energy equipment/systems being proposed for installation
  - All other datapoints listed as required in the <u>Data & Tools Requirements Guide</u>
  - Estimated total project cost as defined in section 2.1



### **Third Party Verification**

### 3.2.6. Program Requirements: Post-Installation Certificate

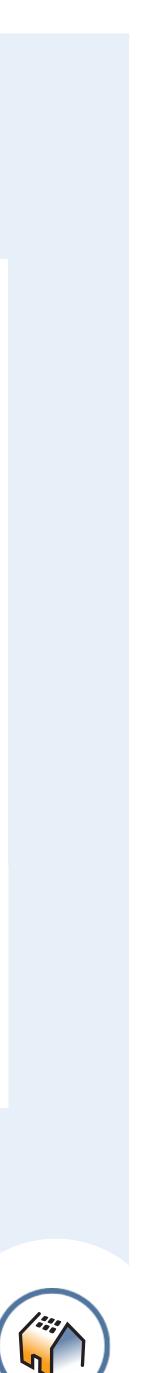
States must provide a post-installation project certificate to the household that has been certified by a qualified third party to confirm quality monitoring and accurate valuation of the upgrade.43

States must ensure a certificate:

- Is completed and certified by a qualified third party. ٠
- Is provided to the household. ٠
- ٠ or energy generation to support accurate valuation of the upgrade.

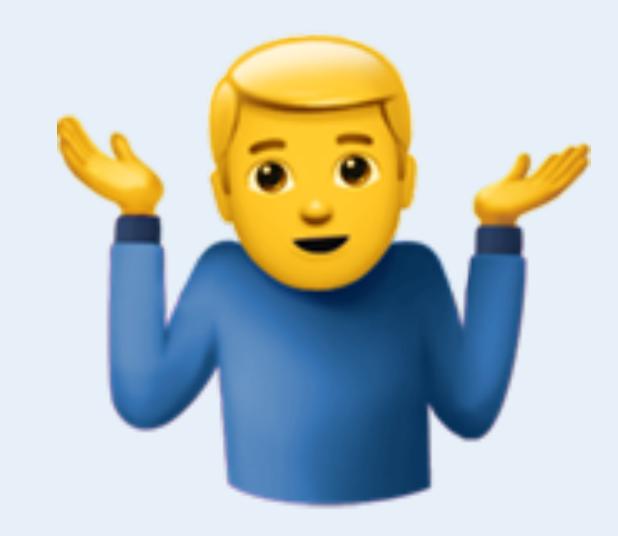
States must establish guidelines to those issuing certificates to ensure that information provided is clear and incorporates DOE-required information in the certificate package prior to launch of its program.

Details the work performed, equipment and materials installed, projected energy savings



### **Modeled vs Measured**

### States May Use Either or Both





### **Rebate Stacking** Options



#### The Residential Capital Stack Maximizing Impacts of HOMES, HEEHR, 25C Tax Credit, WAP, and Utility Programs for Existing Single-Family Homes

Kara Saul Rinaldi and Skip Wiltshire-Gordon August 1, 2023<sup>1</sup>

The Department of Energy (DOE)'s Home Energy Rebate Programs, enacted in the Inflation Reduction Act (IRA) of 2022, aim to save consumers money on home efficiency and electrification upgrades to cut energy use and carbon emissions in residential buildings. The historic \$8.8 billion in funding for these programs-the largest pot of money ever for home energy efficiency and electrification rebates-has tremendous potential to reduce residential greenhouse gas emissions, while also helping low- and moderate-income households better heat and cool their homes, save money on their utility bills, and increase resiliency to extreme weather.

To ensure these investments reach their full potential, state rebate programs should coordinate federal, state, and utility dollars while pointing participants to additional federal tax credits. Stacking rebates and tax credits will unlock maximum decarbonization outcomes while saving consumers the greatest amount of money.

Recent DOE Home Energy Rebate guidance<sup>2</sup> affirms the performance-based (HOMES) and electrification-focused (HEEHR) rebates are not taxable and can be paired with the 25C Energy Efficient Home Improvement tax credit.<sup>3</sup> While the IRA does not allow HOMES and HEEHR to both be used for the same single upgrade, the law does allow for "stacking" of these rebates across federal funding sources, including the Weatherization Assistance Program (WAP),



provided that "each Federal grant only funds distinct, separable upgrades." Per guidance, HOMES Measured Energy Savings rebates cannot be stacked with HEEHR, but HOMES Modeled Energy Savings rebates can be – again, provided they are for a different single upgrade.<sup>4</sup>

For non-federal funding, DOE guidance "strongly encourages" states to design rebate programs that combine funding—including state, local, utility

<sup>1</sup> This document reflects Department of Energy (DOE) guidance as of August 1, 2023. DOE may make additional clarifications and modifications to guidance in the coming weeks.

<sup>2</sup> DOE IRA Home Energy Rebates Program Requirements & Application Instructions here <sup>3</sup> The DOE Guidance is clear that the HEEHR rebate should reduce the amount of the expenditure on which the consumer calculates the amount of the credit (p.44; p.82). Additional clarification is needed on HOMES. Per DOE, consumers receiving IRA rebates are not required to report the value of the rebate as income. For more on the 250

tax credit, see the AnnDyl Policy Group & Building Performance Association Energy Efficient Home In <sup>4</sup> Per DOE, "funds may be used to supplement, and no funds may be used to supplant, weatherization activities under the Weatherization Assistance Program for Low-Income Persons" (p.93). See p.11 for details on HOMES Modeled/Measured stacking with HEEHR. DOE guidance defines an "upgrade" as "a single energy improvement to a

dwelling unit or multifamily building that is a distinct and separable part of the overall scope of work of a home efficiency or electrification project" (p.9). Clarifications or modifications of DOE guidance could adjust stacking rules between Measured HOMES programs and HEEHR, but this analysis focuses on guidance as of August 1, 2023.

(for separate upgrades)

Stacking either rebate with other federal funds **Clarification Needed**: (for separate upgrades)

https://www.anndyl.com/wp-content/uploads/2023/08/AnnDyl-Residential-Capital-Stack-Briefing-Paper.pdf

## Allowed

### Prohibited (as of August 1, 2023)

### HOMES Modeled + HEEHR

### HOMES Measured + HEEHR

## 25C + HEEHR

HOMES Measured + HOMES Modeled

**HOMES + 25C** 



### **Direct to Contractor Incentives**

#### Table 9. Qualifying Ac

### **Qualifying Activity**

Substantial installation located within a dis (excludes installations of electric stoves an per dwelling unit

Installation of one or more electric heat pu

Installation of one or more electric heat pu cooling per dwelling unit - ducted

Installation of one more electric heat pump cooling per dwelling unit - unducted

Installation of one electric stove, cooktop,

Installation of one electric heat pump cloth

Installation of one or more electric load se

Installation of insulation per dwelling unit

Installation of air sealing and materials to i dwelling unit

Installation of electric wiring per dwelling

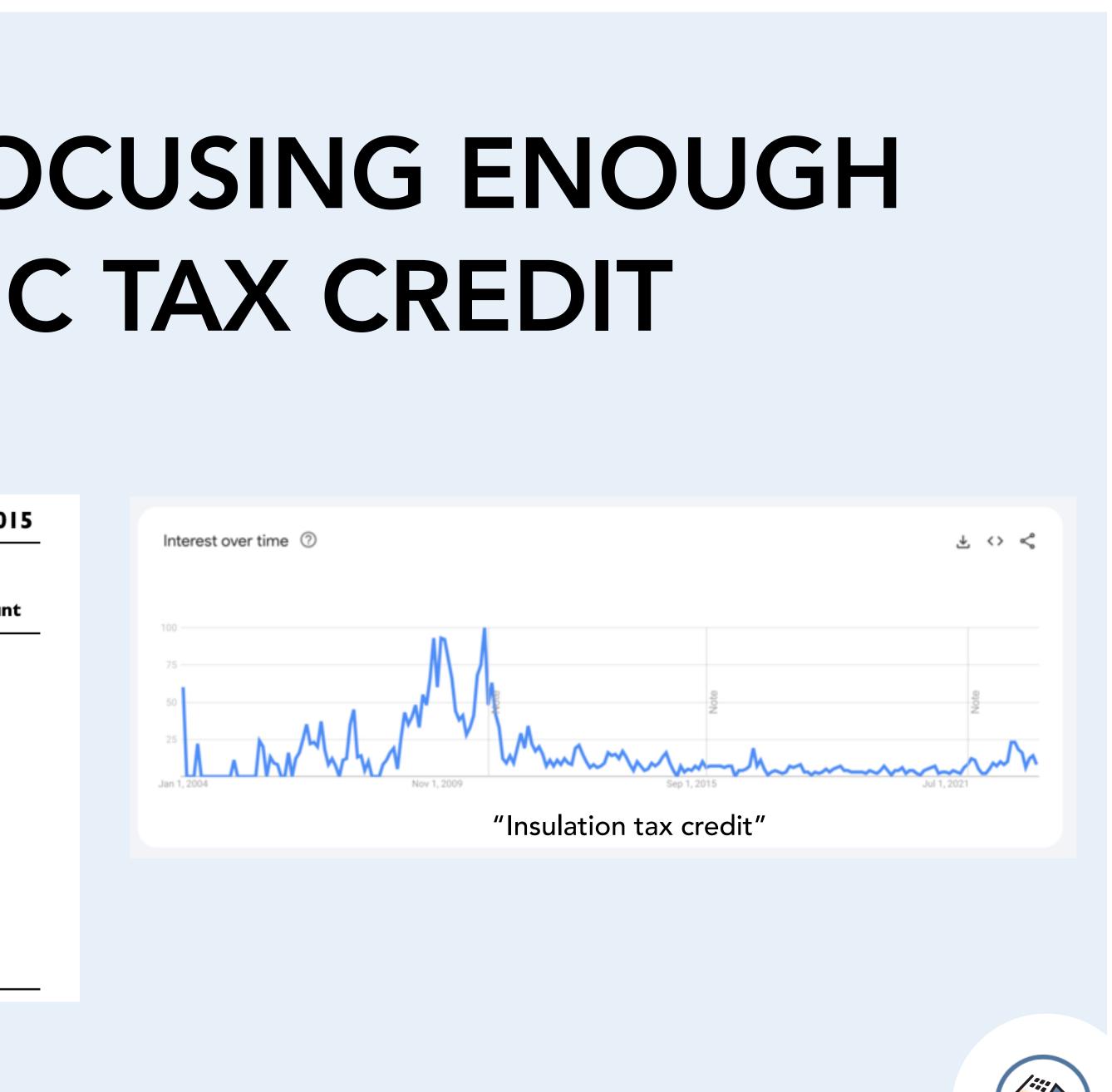
ctivities and Maximum Incentives					
	Maximum Incentive				
sadvantaged community nd electric heat pump dryers)	\$200				
ump water heaters	\$150				
umps for space heating and	\$300				
nps for space heating and	\$200				
, range, or oven	\$0				
thes dryer	\$0				
ervice center	\$150				
	\$250				
improve ventilation per	\$250				
unit	\$250				



# WE ARE NOT FOCUSING ENOUGH **ON THE 25C TAX CREDIT**

#### Table B-1. Residential Energy Credits Claimed and Average Amount, 2006-2015

		Number of Tax Returns Which Include Claims for Residential Credits	Total Amount of Residential Credits Claimed (Millions)	Average Credit Amoun
	2006	4,344,189	\$1,000.15	\$230
	2007	4,326,398	\$1,007.58	\$233
	2008	225,733	\$216.69	\$960
	2009	6,711,682	\$5,822.88	\$868
	2010	7,155,889	\$6,173.49	\$863
	2011	3,642,988	\$1,676.00	\$460
	2012	2,225,307	\$1,266.56	\$569
	2013	3,036,039	\$1,613.80	\$532
	2014	2,663,702	\$1,638.35	\$615
	2015	2,592,967	\$2,087.75	\$805



# **QUESTIONS?**

Peter Troast peter@energycircle.com

