

Federal Opportunities to transform Residential EE

we make *home* value visible™



Amy Beley, VP of Public-Private Partnerships
Rick Counihan, Senior VP, AnnDyl Policy Group

September

19,

2022



AGENDA

- I. **Who is Pearl?**
- II. **Inflation Reduction Act: *What's in it?***
- III. **How does it change how homeowners buy & sell homes?**
- IV. **What can you do to get TX and OK ready?**

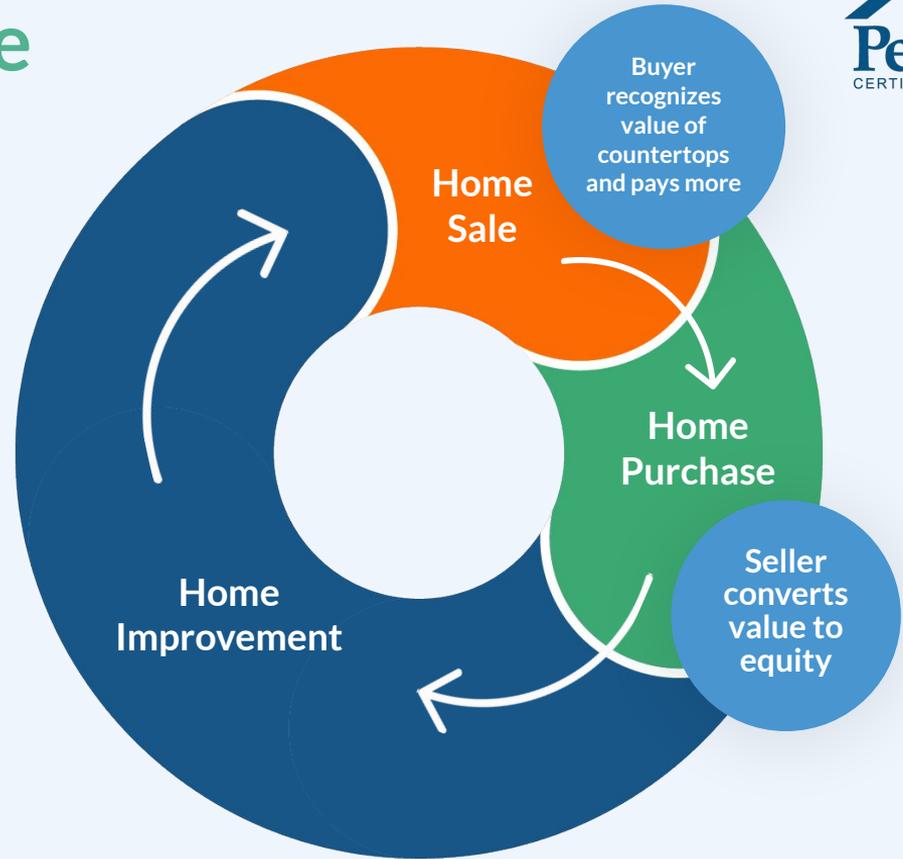




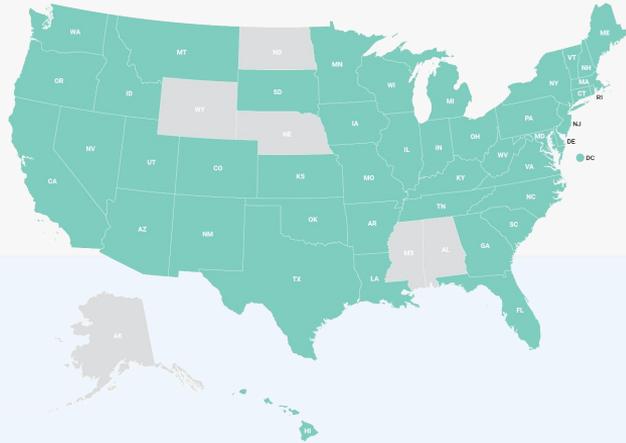
**Pearl is Dedicated to
Transforming the Housing Stock
for Good.**

The Home Value Cycle

- ✓ Home **BUYER** “sees” high-performing features in Pearl’s Certification Report and marketing materials.
- ✓ Home **SELLER** captures the value of the investment in the sale price.
- ✓ **DEMAND** for High-Performing Homes drives more improvements, completing the cycle.



Pearl Overview



43
states

100K



Active in 41 states

100k homes
certified

National contractor,
builder and real estate
agent networks

National Partners



Investor and
Program Partner



Standards and
Program Partner



Data and Program
Partner



Licensing Agreement
and Policy Partner



Data and Standards
Partner



Data and Standards
Partner



Program Partner

Manufacturer, Distributor, & Trade Partners



Manufacturer Partner



Manufacturer Partner



Distributor Partner



Trade Partner



Trade Partner



Utility Partner

Public-Private Partners



The Pearl Certification Report:

Third-Party Credibility and Homeowner Engagement



Details about installation

Special Performance Features of This Home

Information below based on California data from the National Renewable Energy Lab.



Gas Furnace :
Top 1% of gas heated homes



Central Air Conditioner :
Top 1% of CA homes

This home's heating equipment is exceptional: not only is it very efficient, but it also has a verified Quality Installation to the highest industry standards. It will save the homeowner money during cold winter months while providing comfort.

This home's air conditioner is not only one of the most energy efficient available in the market but it also has a verified Quality Installation to the highest industry standards. It saves the homeowner money every summer, while providing comfort.



Filters :
Hospital-grade



Thermostat :
Smart home feature

The home's special air filter unit attracts and captures airborne particles and allergens, such as pollen, pet dander, and mold spores - promising healthier indoor air for residents. These filters are likely to be nearly as effective as true HEPA filters at controlling most airborne indoor particles.

This home's wi-fi thermostat lets the owners control their heating and cooling systems through an app remotely - as well as in person.

Explains home features in terms that interest and engage home buyers

HOME ASSET DETAILS

Heating and Cooling

Platinum Level: 244
This Home: 248
Average Home: 151

Heating System

Type	Gas central furnace
AFUE	96
Quality installation	Yes
Motor	Full ECM
Maintenance Schedule	Maintenance Contract
ENERGY STAR®	Yes
Manufacturer	Lennox
Model Number	EL196UH045XE36B*

Pearl Home Certification Report



PARKER & SONS

Contractor
Parker and Sons

Homeowner
John Adams

Co-branded with contractor logo

Pearl Certification Engagement Guide

Congratulations on having your home's high-performing features certified! This Certification Package includes the documentation necessary to capture the value of those investments. To find out how you, your agent, and your appraiser can leverage Pearl's Certification Package, follow the guide below.



HOMEOWNERS

This Certification Report captures high-performing features known to Pearl to provide an accurate record for future appraisal. If your home has additional features not captured in this report (e.g. ENERGY STAR appliances), please visit your Green Door account to update your home and request an updated Certification Package.

Important: scan or click the QR code to learn the correct process for using your Certification Package when selling or refinancing your home.



REAL ESTATE AGENTS

Pearl Certification is a game-changer for home value as it helps to maximize a home's marketability in order to get top dollar at the time of sale. Ask your real estate agent to scan or click the QR code so they can use your documented marketing resources when listing your high-performing home. Studies show that homes marketed correctly with Pearl sell faster and for more money.



CONTRACTORS

Pearl contractors represent the top 5% of firms nationwide. They are vetted by Pearl for quality service and ranked on how properly documented a home's high-performing features to increase its market value. For more information on the Pearl contractor network, scan or click the QR code.



APPRAISERS

This Pearl Certification Package provides the investment guide documentation necessary to accurately value the high-performing features of this home. Ask your appraiser to scan or click the QR code, so they can accurately take your home's features into consideration when forming their opinion of value. This information will be included in the Form 1004 Improvements section in the Additional Features field.

Engagement Guide page with important information for homeowners, real estate agents, and appraisers

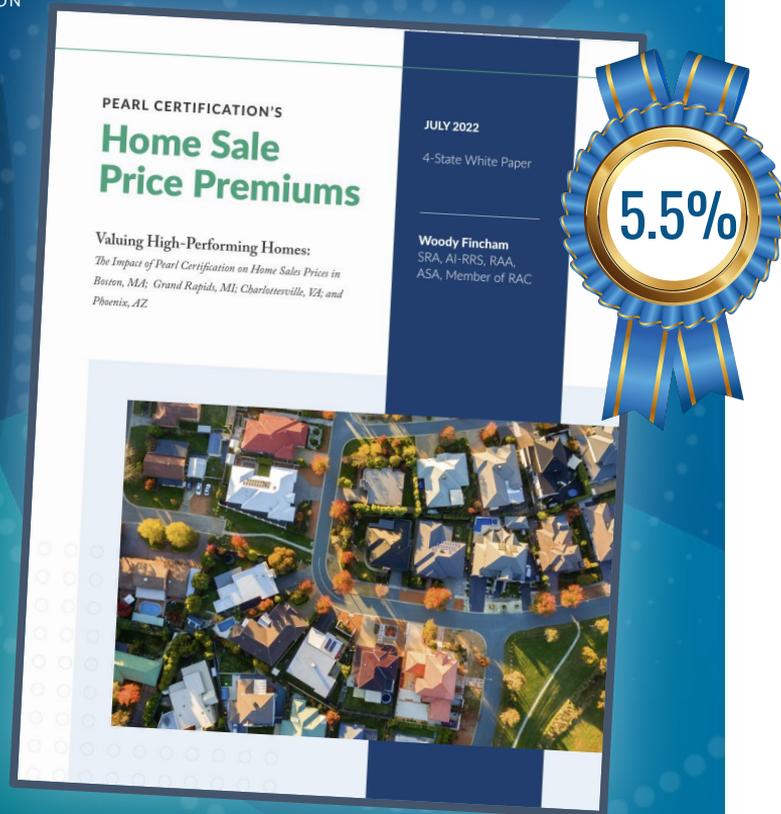
Appraisal Addendum

Pearl Report Includes a Completed Appraisal Addendum for Refi or Resale

Published guidance from Fannie Mae:

"Special energy-saving items must be recognized in the appraisal process and noted on the appraisal report form. For example, when completing the appraisal report (Form 1004), special energy-efficient items are to be addressed in the Improvements section in the Additional features field."

EFFICIENCY FEATURES (Water, Energy, and Environmental. See types defined in glossary).			
The following items are considered within the appraisal analysis of the subject property:			
Insulation	<input type="checkbox"/> Fiberglass Blown-In <input type="checkbox"/> Foam Insulation <input type="checkbox"/> Cellulose <input type="checkbox"/> Fiberglass Batt Insulation <input type="checkbox"/> R-Value Wall Ceiling <input type="checkbox"/> Other		
Building Envelope	Envelope Tightness: Unit: <input type="checkbox"/> CFM25 <input type="checkbox"/> CFM50 <input type="checkbox"/> ACH50 <input type="checkbox"/> ACH natural Instructions: Insert the rating as a number that could be 0.5 to 7ACH50 or higher. The lower the number, the more air tight the envelope. Building Codes for area show maximum Envelope Tightness allowed based on the climate zone. Not all areas have adopted a building code. http://bcap-energy.org/		
Windows	<input type="checkbox"/> ENERGY STAR® <input type="checkbox"/> Low E <input type="checkbox"/> High Impact <input type="checkbox"/> Storm	<input type="checkbox"/> Double Pane <input type="checkbox"/> Triple Pane <input type="checkbox"/> Tinted <input type="checkbox"/> Solar Shades	
Day Lighting	<input type="checkbox"/> # of Skylights:	<input type="checkbox"/> # of Solar Tubes:	<input type="checkbox"/> Other (Describe): % of lighting LEDs:
ENERGY STAR® Appliances	ENERGY STAR®: <input type="checkbox"/> Dishwasher <input type="checkbox"/> Refrigerator <input type="checkbox"/> Washer/Dryer <input type="checkbox"/> Other Energy Source: <input type="checkbox"/> Propane <input type="checkbox"/> Electric <input type="checkbox"/> Natural Gas <input type="checkbox"/> Other (Describe): Note: ENERGY STAR® appliances do not result in an ENERGY STAR® Home.		
Water Heater	<input type="checkbox"/> ENERGY STAR® <input type="checkbox"/> Tankless	Size: gallons	<input type="checkbox"/> Solar (next page) <input type="checkbox"/> Heat Pump <input type="checkbox"/> Coil
HVAC & Related Equipment Describe in comments area.	<input checked="" type="checkbox"/> High Efficiency HVAC SEER 26.0 Efficiency Rating % AFUE* 96.0% *Annual Fuel-Utilization Efficiency	<input type="checkbox"/> Heat Pump Efficiency Rating: COP: HSPF: SEER: EER:	Thermostat/Controllers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Programmable Thermostat? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Auxiliary Heat Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Indoor Environmental Quality	<input checked="" type="checkbox"/> Energy (ERV) or Heat Recovery Ventilator (I) <input type="checkbox"/> Other Measured Whole-House Ventilation <input type="checkbox"/> Humidity Monitoring Device installed	HVAC & Related Equipment Describe in comments area.	<input type="checkbox"/> High Efficiency HVAC SEER Efficiency Rating % AFUE* % *Annual Fuel-Utilization Efficiency
Water Efficiency	<input type="checkbox"/> Reclaimed Water System (Describe): <input type="checkbox"/> Greywater reuse system <input type="checkbox"/> Water Saving Fixtures	<input checked="" type="checkbox"/> Heat Pump Efficiency Rating: COP: HSPF: 9.5 SEER: 19.0 EER:	Thermostat/Controllers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Programmable Thermostat? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Auxiliary Heat Source? <input type="checkbox"/> Yes <input type="checkbox"/> No Radiant Floor Heat? <input type="checkbox"/> Yes <input type="checkbox"/> No Geothermal? <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Vehicle Ready? (car charger) <input type="checkbox"/> Yes <input type="checkbox"/> No
Utility Costs	Annual Utility Cost: \$ /year, based on: to (full year). Includes (check all that apply): <input type="checkbox"/> Electric <input type="checkbox"/> Heating <input type="checkbox"/> Water <input type="checkbox"/> Other:		# Of Occupants:
Comments Include source for information provided in this section.	The following property has a number of high-performing features as detailed in the Pearl Certification report. With the cooperation and approval of the Appraisal Institute, Pearl Certification has an AI REPORTS® License Agreement. The Appraisal Institute makes no representations, warranties or guarantees as to, and assumes no responsibility for, the data, analysis or work product provided by the individual appraiser(s) or any other individual in the specific contents of the AI Reports®		



High-Performing Homes Sell for More.

An Independent Study Confirmed:

5.5% Home value
Increase*

\$20K average increase
based on median home price

Pearl's Consumer Portal



- ✓ Ongoing engagement educates homeowners and drives action
- ✓ Home investment plans drive improvements over time
- ✓ Contractor and RE search features connect homeowners with trained professionals

What's in the IRA?



AnnDyl Policy Group is a Washington, DC-based policy strategy firm that focuses on energy efficiency, renewable energy, and climate change policy, programs, financing, and technology.

We represent clients from across the energy efficiency and clean energy industries, including technology and financial sector companies, energy trade associations, and non-profit organizations.

www.anndyl.com

Inflation Reduction Act (IRA): Big Picture

- ▶ Signed into law on **August 16**.
- ▶ Funds a wide range of activities including prescription drug price controls and various tax credits/changes
- ▶ But, nearly **\$370 billion** in support of clean energy and energy efficiency.



Photo Source: [The White House](#)

IRA Overview – Residential Programs

Program	IRA Funding Level	Timeline
Home Owner Managing Energy Savings (HOMES) Rebates	\$4.3B	Available through 2031
State-Based Home Energy Efficiency Contractor Training Grants	\$200M	Available through 2031
High-Efficiency Electric Home Rebate Program	\$4.5B	Available through 2031
Greenhouse Gas Reduction Fund	\$27B	Available through 2024
25C Energy Efficient Home Improvement Tax Credit	CBO Estimate: \$12.4 billion over 10 years	Available through 2032
45L New Energy Efficient Home Tax Credit	CBO Estimate: \$2 billion over 10 years	Available through 2032

IRA – Home Owner Managing Energy Savings (HOMES) Rebates

- ▶ IRA provides **\$4.3 billion in formula funding through State Energy Programs for HOMES rebates.**
- ▶ Provides direct rebates for home energy efficiency retrofits.
 - ▶ **Modeled** \$2,000 for 20% savings, \$4,000 for 35% savings.
 - ▶ **Measured** energy savings of at least 15 percent portfolio, based on Average State House 20% energy savings.
 - ▶ Capped at 50% of project cost for market-rate (over 80% AMI).
- ▶ Rebates **double** for low- and moderate-income households (**up to \$8,000**, capped at 80% of project cost).
- ▶ Includes a "prohibition of combining rebates" provision to prevent double-dipping with other federal grants or rebates, including the High-Efficiency Electric Home Rebate Program (for the same measure).
 - ▶ IRA does not include any provision prohibiting combining federal rebates with state rebates, nor does it prohibit combining rebates with energy efficiency tax credits like 25C.
- ▶ Includes both single-family and multifamily.

IRA – HOMES Rebate Certification Requirement

- ▶ Under IRA, the Homes Rebate Program requires States to implement a plan **for certification of all residential energy efficiency retrofits** “for quality monitoring to ensure that each home energy efficiency retrofit for which a rebate is provided is documented in a certificate that—
 - (A) is provided by the contractor and certified by a third party to the homeowner; and
 - (B) details the work performed, the equipment and materials installed, and the projected energy savings or energy generation to support accurate valuation of the retrofit”

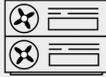
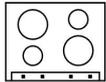
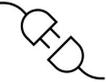
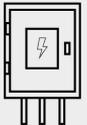
IRA – State-Based Home Energy Efficiency Contractor Training Grants

- ▶ IRA provides **\$200 million for State-Based Home Energy Efficiency Contractor Training Grants.**
 - ▶ Grants to states through the State Energy Program to **support energy efficiency and electrification contractor training.**
- ▶ Specifications will be left up to DOE in implementation.
- ▶ Previously called “Home On-line Performance-Based Energy Efficiency (HOPE) Contractor Training Grants”.



IRA – High-Efficiency Electric Home Rebate Program

- ▶ IRA provides **\$4.5 billion** in grants to states via the State Energy Program for a **High-Efficiency Electric Home Rebate Program**.
- ▶ LMI households are eligible for rebates **up to a total of \$14,000** for electric systems/appliances.
- ▶ Includes a "prohibition of combining rebates" section to prevent double-dipping with HOMES.
- ▶ Includes both single-family and multifamily.

	Appliance	Rebate Amount (Maximum)
	Heat Pump (for space heating and cooling)	\$8,000
	Electric Stove, Cooktop, Range, or Oven, or Clothes Dryer	\$840
	Heat Pump Water Heater	\$1,750
	Electric Wiring	\$2,500
	Electric Load Service Center (Breaker Box)	\$4,000
	Insulation, Air Sealing, and Ventilation	\$1,600

IRA – 25C Energy Efficient Home Improvement Credit

- ▶ **IRA extends and expands the Section 25C Energy Efficient Home Improvement Tax Credit through September 2032.**
 - ▶ Beginning January 1, 2023, 25C provides homeowners with a tax credit up to 30% for the costs of residential energy efficiency upgrades (up to \$1,200 per year).
 - ▶ Eligible energy upgrades include insulation, central air conditioners, natural gas, propane, or oil water heaters, furnaces or hot water boilers, electric panels, window and door sealing, and lights.
 - ▶ Increased tax credit up to \$2,000 per year (or 30%) for the costs to purchase Electric heat pump water heaters and electric heat pumps.
 - ▶ \$600 annual cap per homeowner for efficient gas HVAC and for windows.
 - ▶ A 30% credit is also available for home energy audits up to \$150.

IRA – 45L New Energy Efficient Home Tax Credit

- ▶ IRA extends and expands the **Section 45L New Energy Efficient Home Tax Credit through September 2032.**
 - ▶ A credit of **\$2,500** is available for single-family or manufactured homes that meet the relevant Energy Star Single Family New Homes National Program Requirements.
 - ▶ A credit of **\$5,000** is available for single-family or manufactured homes that are certified zero energy ready home by DOE.
 - ▶ A credit of **\$500** or **\$1,000** is available for multifamily if the unit meets the most recent Energy Star Multi-Family New Construction National Program Requirements, or is certified under the zero energy ready home program respectively.
 - ▶ The credit is increased to **\$2,500** or **\$5,000** when construction meets prevailing wage requirements (with the same Energy Star / Zero Energy Ready Home tiers).

IRA – Greenhouse Gas Reduction Fund

- ▶ IRA provides **\$27 billion for the Greenhouse Gas Reduction Fund** through EPA, including:
 - ▶ **\$7 billion** for competitive grants to nonprofit, state, and local financing institutions to deploy zero-emission technologies in low-income and disadvantaged communities.
 - ▶ **\$11.97 billion** in competitive grants for projects, activities, and technologies that reduce emissions or other air pollution.
 - ▶ **\$8 billion** for competitive grants for financial and technical assistance in low-income and disadvantaged communities.
- ▶ **55 percent** (\$15B) of the total GHG fund is explicitly directed towards low-income and disadvantaged communities.
- ▶ EPA is to make competitive grants no later than 180 calendar days after enactment (February 2023).

IRA – Building Codes

IRA provides **\$1 billion to update and implement energy efficient building codes** including:

- \$330 million for grants to state and local governments to adopt residential building codes that meet or exceed the 2021 International Energy Conservation Code.
- \$670 million for grants to assist state and local governments to adopt building energy codes for residential and commercial buildings that meet or exceed the zero energy provisions in the 2021 IECC, or an equivalent stretch code.
- Note: Paired with \$225 million in IIJA to create a grant program within the Building Technologies Office (BTO) to update and adopt building energy codes in new residential and commercial buildings across the States.

Bipartisan Infrastructure Law

- The Infrastructure Investment and Jobs Act (IIJA) was signed into law November 15, 2021.
- \$1 trillion for transportation, water, and energy infrastructure, with \$550 billion in new spending.
- Agencies are currently in early phases of implementation.



Infrastructure Investment and Jobs Act (IIJA)

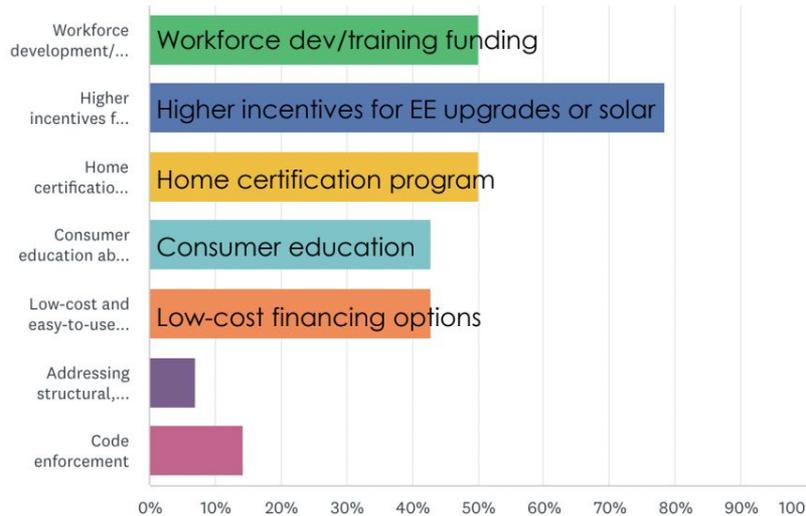
Energy Efficiency Funding

Program	Funding	Timeline
EE Revolving Loan Fund (RLF) Capitalization Grants	\$250M	FY22 until expended
Energy Auditor Training Grant Program	\$40M	FY22 until expended
Weatherization Assistance Program (WAP)	\$3.5B	FY22 until expended
State Energy Program (SEP)	\$500M	FY22-26
Energy Efficiency and Conservation Block Grant Program (EECBG)	\$550M	FY22 until expended

Billions of Dollars in Federal Support for the Home Performance Industry

- ▶ IRA and IIJA direct billions through state energy offices **to contractors and consumers** in support of home performance.
- ▶ IRA supports **ten-year** funding for key priorities:
 - **Rebates** (HOMES, High-Efficiency Electric Home Rebate Program)
 - Rebates drive demand for home performance contractor companies.
 - **Training for contractors** (State-Based Home Energy Efficiency Contractor Training Grants)
 - Training dollars reduce costs of training contractor employees.
 - **Tax Incentives** (25C, 45L)
 - EE tax incentives drive additional demand for home performance contractor companies to meet.
- ▶ Pairing Federal rebates with utility and local rebates.

IRA will address key issues in the building performance industry.



Today's top contractors & builders grapple with:

- Find qualified workers
- Manage price increases and supply shortage
- Differentiate from low bid companies
- Buyers and renters who are more sensitive to high energy bills.
- Incorporate new technologies (*smart devices, solar, IAQ, etc.*).
- Help homeowners/buyers understand the value of a high performing home



The law jumpstarts the marketplace for high performing homes

Rebates and tax credits will drive change

TAX CREDITS

25D Clean Energy Tax Credit

2022-2031: 30%

2032-2033: 26%

2033-2034: 24%

30%

25C Energy Efficient Home Improvement Tax Credit

- Up to 30% of qualifying energy efficiency projects cost
- \$1,200 credit per year
- \$150 for a home energy audit
- Up to \$2,000 if heat pump included

\$2,000
annually



45L Reinstated and Improved Builder Tax Credit

- It's law for the next 10 years (2032)
- Incentives up to \$5,000 per dwelling unit
- \$2,500 for ENERGY STAR certified homes & \$5,000 for Zero Energy Ready certified homes

REBATES

HIGH EFFICIENCY ELECTRIFIED HOMES

Single-Family and Multifamily rebates available for families at or below 150% AMI (Area Median Income).

MAX REBATE **\$14,000**

HOMES PROGRAM

Homeowner Managing Energy Savings
(See reverse side for rebates per income category)

- ✓ Up to \$2,000 for Heat Pump Water Heaters
- ✓ Improvements that result in energy savings of 20%. Up to 30% for Improvements that result in modeled or performance-based energy savings
- ✓ Available to All Homeowners
- ✓ Multifamily buildings

MAX REBATE **\$8,000**

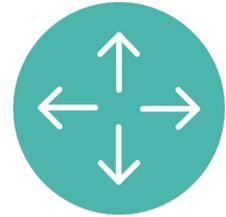
How the IRA Will Change the single family home marketplace:



Rebates & Tax Credits
make high-performance
homeownership more
affordable



Third-party
certifications
prove to
prospects that,
"It is worth it!"



The scale of the IRA will
organically drive demand
for high-performing
homes

But only if your state chooses to accept the funds!

What can you do?

- ✓ Advocate for the state to apply for the **IRA funds**
- ✓ Connect with us to develop a plan that works for **Texas and Oklahoma**
- ✓ Use your resources to build a marketplace for **high performing homes**



Help Texas and Oklahoma get IRA Ready

Amy Beley

amy.beley@pearlcertification.com

301.641.3860

Rick Counihan

Rick.@anndyl.com

415.517.1861