- In accordance with the Department of Labor and Industry's statute 326.0981, Subd. 11,

  "This educational offering is recognized by the Minnesota Department of Labor and Industry as satisfying **1.25 code/energy hours** of credit toward **Building Officials and Residential Contractors** continuing education requirements."

  For additional continuing education approvals, please see the continuing education guide in the conference guidebook.

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An Inflation Reduction Act Overview

https://www.cleanenergyresourceteams.org/inflation-reduction-act-what-you-need-know

Helping Minnesotans build clean energy

MISSION

We connect individuals and their communities to the resources they need to identify and implement community-based clean energy projects

How does CERTs help?

Hands-on assistance

For cities, counties, utilities, farmers, businesses, and other organizations looking to make a change

Practical steps to clean energy

Resources for getting started, moving forward, and completing projects

Learning opportunities

We host events, create resources, and highlight clean energy stories and jobs

CERTs Partners

Regional Sustainable Development Partnerships

University of Minnesota Extension

Great Plains Institute

SRDC

Commerce Department

Today's Talk

- IRA Overview
- Residential EE & RE
- Electric Vehicles
- Commercial EE & RE
- Direct Pay

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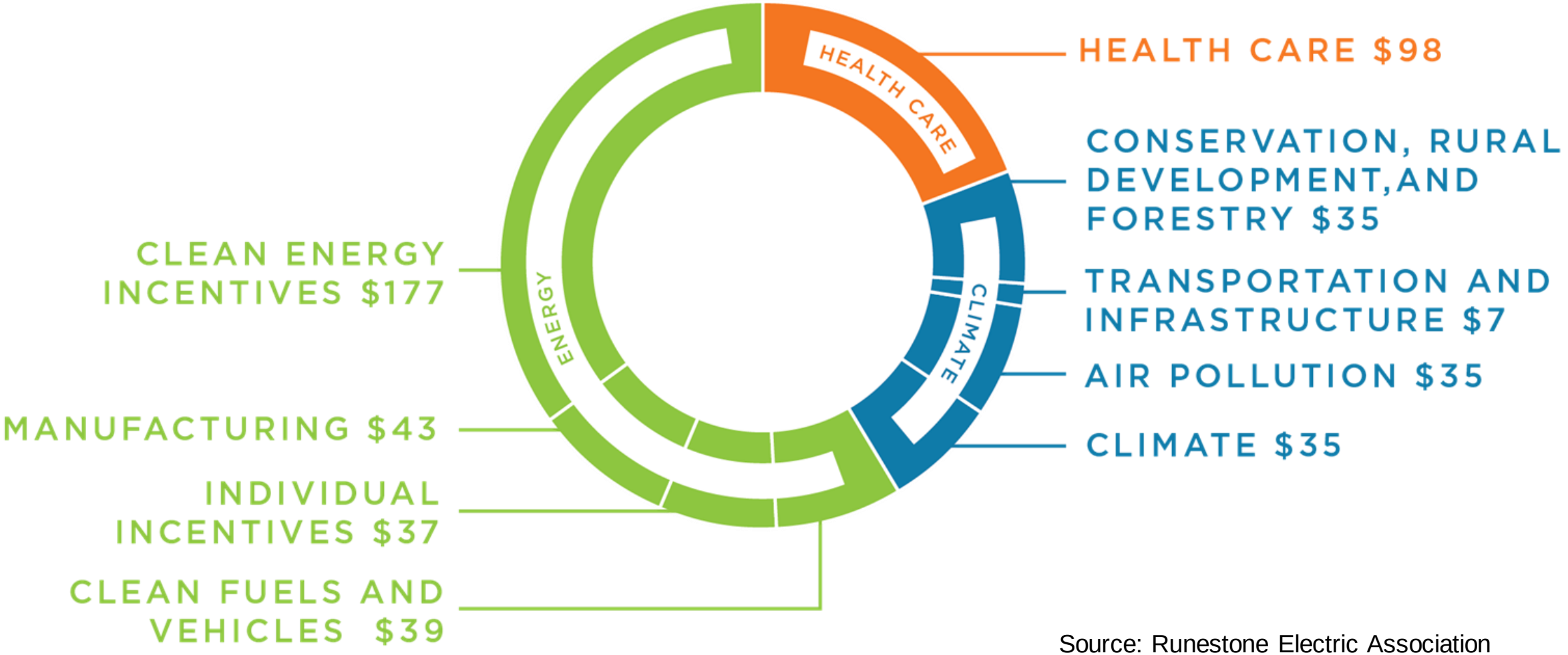
The Inflation Reduction Act: an overview

Range of funds to drive supply and demand



Source: Runestone Electric Association

New Programs Funded

- High Efficiency Electric Home Rebate Act (HEEHRA)
- Energy Efficient Home Improvement Credit (25C)
- New Energy Efficiency Home Credit (45L)
- Commercial Buildings Energy Efficient Credit (179D)
- Enhanced Defense Production Act
- Greenhouse Gas Reduction Fund - $27B
- Clean Vehicle credit (30D)
- Residential Clean Energy Credit (25D)
- Environmental and Climate Justice Block Grants -$3 B
- Improving Energy Efficiency & Water Efficiency or Climate Resilience in Affordable Housing
- Tribal Electrification Program - $145 M
- Zero Building Code Energy Adoption provision - $1 B
- DOE Loan Protection Office – up to $3.6 B to allow guarantees on up to $40B in loan principal amounts

Energy Assistance: Recent Changes

Tax Credits/Direct Pay	Grants and Loans	Direct to Consumers
2/3 of funding in the form of federal tax credit Direct pay option for non-profits, tax-exempt organizations, local governments Guidance expected: **October 2022** Programs include: • Tax credits for rooftop solar, heat pumps, and other energy efficient appliances for 10 years • $4000 tax credit to purchase used alternative fuel vehicles and $7500 for new vehicles • Production tax credits for domestic production of solar panels, turbines, and storage systems	1/3 of funding Primarily offered by the DOE, DOT, EPA, USDA, and others Guidance expected: **Early 2023** Programs include: • $2 billion for retrofitting auto manufacturing to produce EVs • $20 billion to build new clean EV manufacturing facilities • $30 billion in targeted grant and loan programs for states and electric utilities to transition to clean electricity • Grants for research that reduces emissions from industrial processes	$9 billion in rebates for low-income consumers to electrify appliances or for energy efficient home retrofits Guidance expected: **Early 2023**; however, programs to come through States; States must await guidance to begin setting up programs.

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Residential focused Opportunities

Top energy savings opportunities

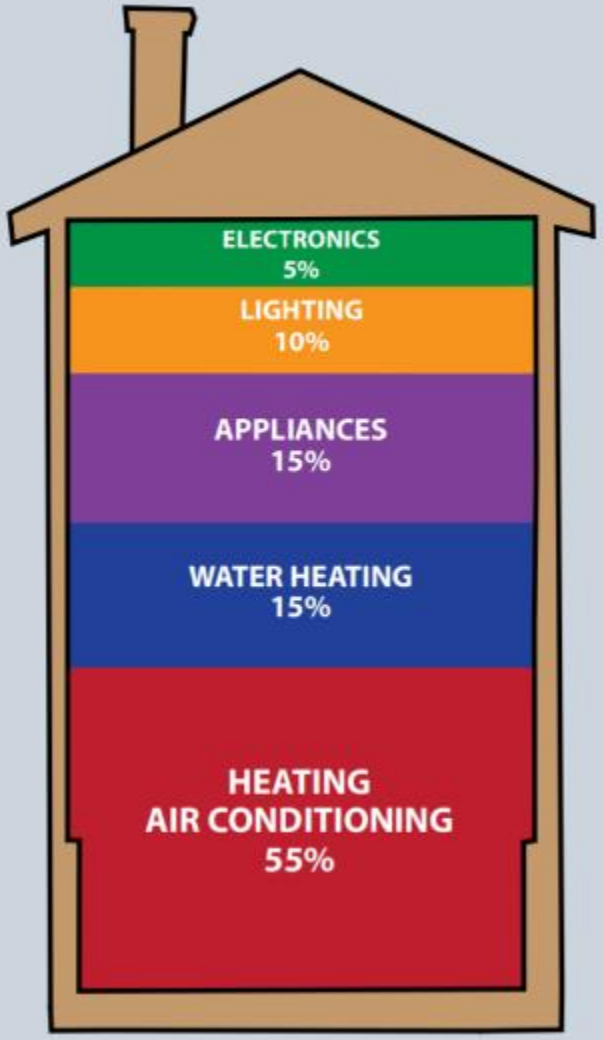
Attic Insulation

Heating System

Wall Insulation

Windows

Other Appliances



Tip: Get an energy audit

Contact your utility to get an energy audit to find out exactly what energy savings you can find at your home!

Tax Credits!

Consult Chart!

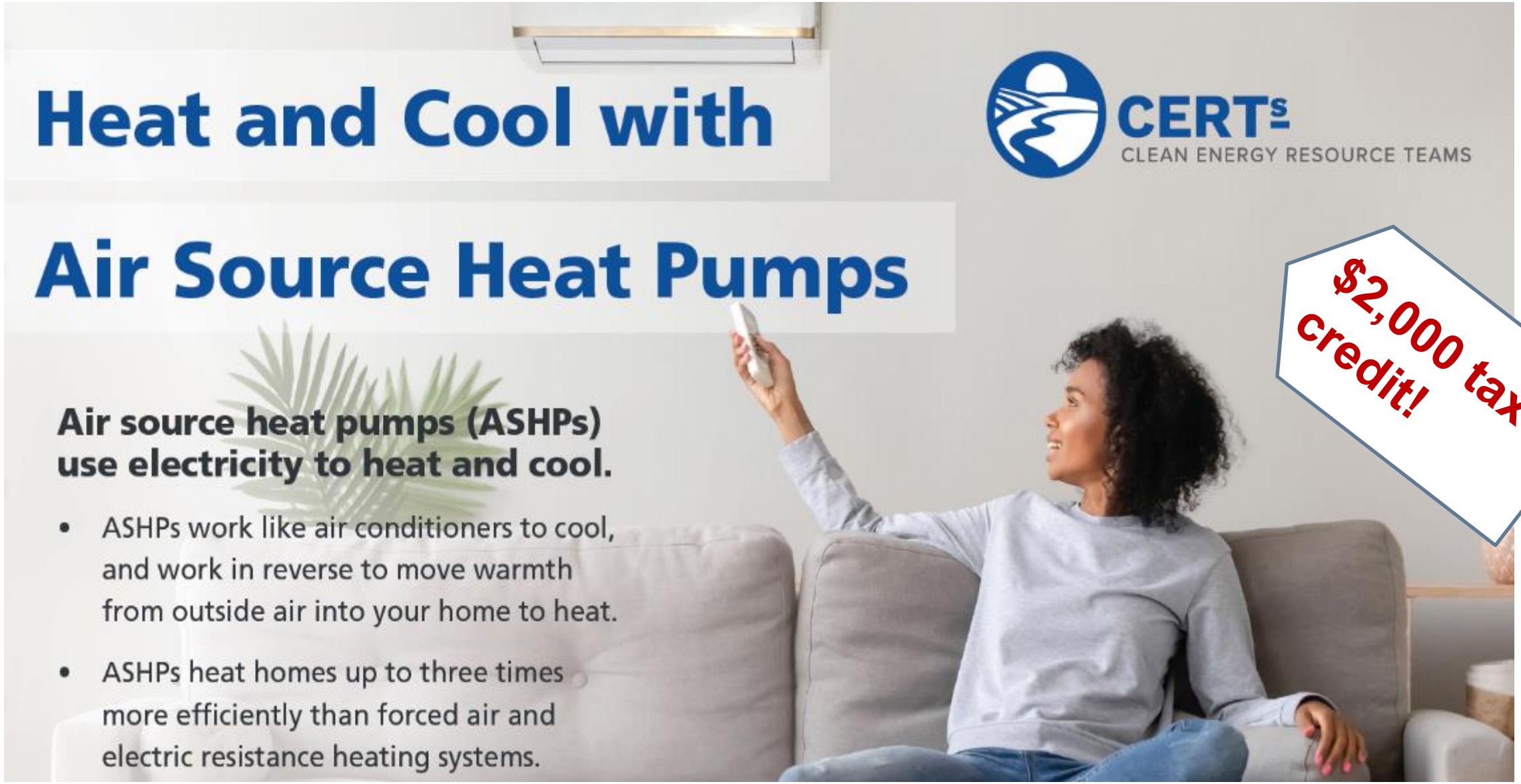
Max Credit for Home Envelope & Heating /Cooling - **$1,200**

Maximum Annual Credit = **$3,200**

Tip: Get an energy audit

Beginning in 2023, you can get a 30% tax credit up to $150 for a home energy audit.

For example: Heat pumps



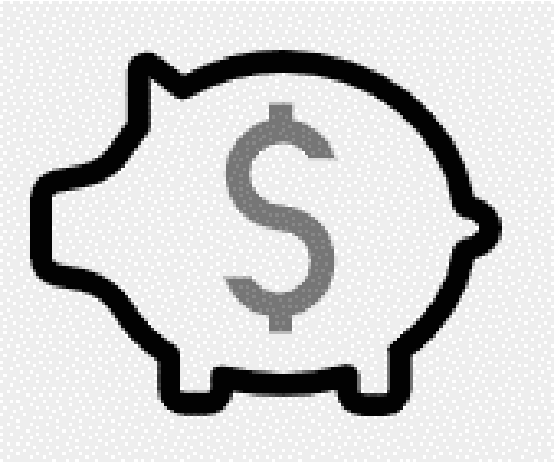
MN awaiting DOE Guidance for Key Residential Rebate Programs

Program	IRA Funding Level	Timeline
Home Owner Managing Energy Savings (HOMES) Rebates	$4.3 B	Available through 2031
High-Efficiency Electric Home Rebate Program	$4.5 B	Available through 2031
State-Based Home Energy Efficiency Contractor Training Grants	$200 M	Available through 2031
Greenhouse Gas Reductions Fund	$27 B	Available through 2031

HOMES Rebate Program (*coming late 2023/early 2024)*

- Rebates to cover the costs of building energy efficiency upgrades
- Rebates amounts based on Modeled or measured savings

- Eligible Recipients:
  - Homeowners and multifamily building owners (single family and multi-family)
  - Whole-house performance-based approach



Incentives for tackling your WHOLE HOME

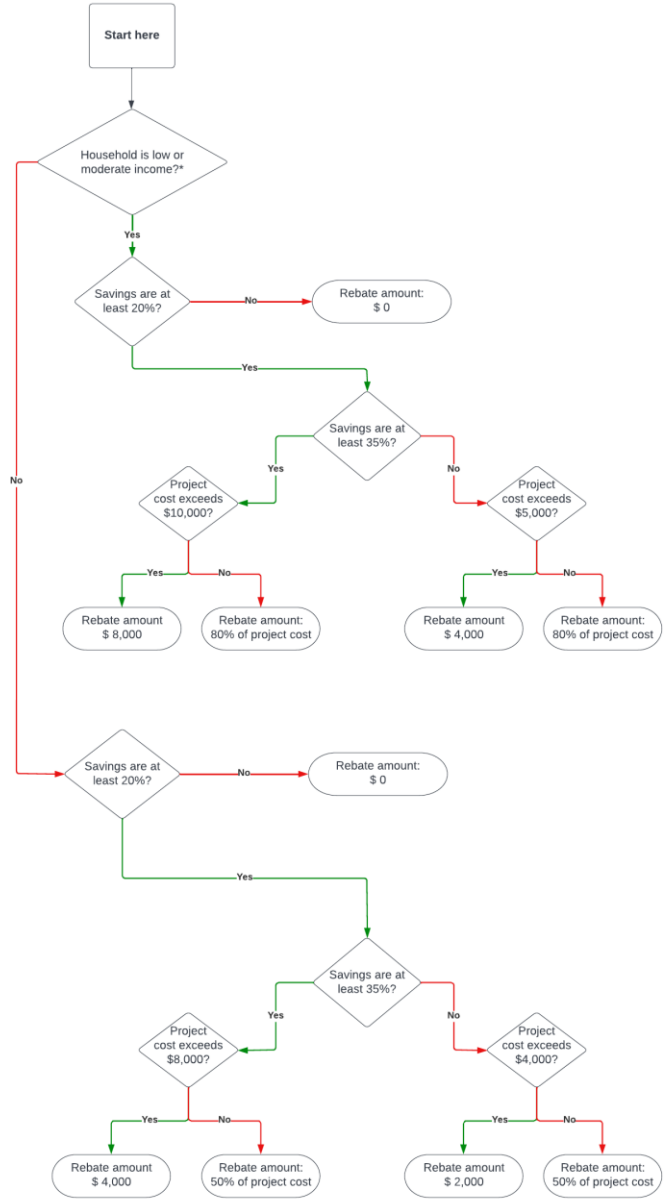
HOMES Rebate: Single Family

HOMES Rebate Pogram - Energy Performance Based, Whole-House Rebates - **Single Family**			
States can increase rebate amounts for LMI households with approval from the Sectretary			
Household Type	**Savings Type**	**Savings Level**	**Maximum Rebate**
Single Family	Modeled	20-35%	Lesser of $2,000 or 50% of project costs
Single Family	Modeled	> 35%	Lesser of $4,000 or 50% of project costs
LMI* Single Family	Modeled	20-35%	Lesser of $4,000 or 80% of project costs
LMI* Single Family	Modeled	> 35%	Lesser of $8,000 or 80% of project costs
Single Family	Measured	15% of more	payment for kwh or kwh equiv. saved = to $2,000 of a 20% reduction of energy use for avg home in-state or 50% of project costs
LMI* Single Family	Measured	15% of more	payment for kwh or kwh equiv. saved = to $4,000 of a 20% reduction of energy use for avg home in-state or 80% of project costs

*LMI - Low & Middle Income defined as less than 80% of the AMI.

Single Family Homes

Modeled Performance Rebate Logic



Snugg Pro

*The term "low or moderate income household" means an individual or family the total annual income of which is less than 80 percent of the median income of the area in which the individual or family resides, as reported by the Department of Housing and Urban Development, including an individual or family that has demonstrated eligibility for another Federal program with income restrictions equal to or below 80 percent of area median income. In multi-family buildings, at least 50% of the dwellings must qualify as LMI households.

HOMES Rebate: Multi-Family

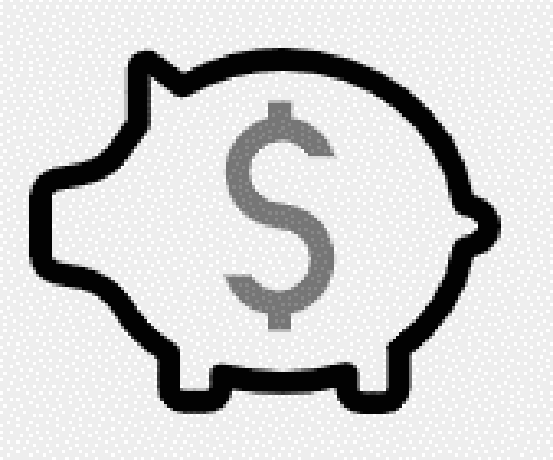
HOMES Rebate Pogram - Energy Performance Based, Whole-House Rebates - **Multi-Family**			
States can increase rebate amounts for LMI households with approval from the Sectretary			
Household Type	**Savings Type**	**Savings Level**	**Maximum Rebate**
Multi-Family	Modeled	20-35%	$2,000 per dwelling, macimum of $200,000 per building
Multi-Family	Modeled	> 35%	$4,000 per dwelling, macimum of $400,000 per building
LMI*& Multi-Family	Modeled	20-35%	Lesser of $4,000 per dwelling and 80% of project costs
LMI*& Mult-Family	Modeled	> 35%	Lesser of $8,000 per dwelling and 80% of project costs
Multi-Family	Measured	15% of more	payment for kwh or kwh equiv. saved = to $2,000 of a 20% reduction of energy use per dwelling unit for the avg multi-family building in the state or 50% of project costs
LMI*& Multi- Family	Measured	15% of more	payment for kwh or kwh equiv. saved = to $4,000 of a 20% reduction of energy use per dwelling unit for avg multi-family building in the state or 80% of project costs

*LMI - Low & Middle Income defined as less than 80% of the AMI.

&LMI - at least 50% occupied with LMI households (individual building or portfolio of buildings)

High Efficiency Electric Home Rebate Act (*coming late 2023/early 2024)*

Eligible Use	$ Limits
Electric Load Service Center Upgrades	$4,000
Electric Stove, Cooktop, Range, and/or Oven	$840
Electric Wiring	$2,500
Heat Pump Clothes Dryer	$840
Heat Pump Heating/Cooling	$8,000
Heat Pump Water Heaters	$1,750
Insulation and Air Sealing	$1,600



Up to $14,000 in rebates!

High Efficiency Electric Home Rebate Act

LMI

- Targets the most money to LMI households.
- LMI is based on relative to where you live and household size
- Less than 80% of AMI = Low Income. 100% rebate
- 80-150% AMI = Moderate Income. 50% rebate

Non-LMI

- Non-LMI = 150% or more AMI
- Do not qualify for upfront rebates
- Can utilize tax credits

Renters

- Upgrades apply to portable items (window unit heat pumps, induction cooktops, heat pump clothes dryer)
- Incentivizes energy retrofits in apartments

Rooftop Solar and Residential Storage

- 30% federal tax credit for solar
- Beginning in 2023: standalone storage qualifies for a 30% tax credit

EV Incentives shifting

Beginning 2023: **Income Qualified** HH may qualify for tax credits up to $7,500

New: Used EVs Incentive: Income Qualified households can receive a tax credit of up to $4,000

- Vehicle must be 2 years old
- Cost < $25,000

Conditions:

- Assembled in North America;
- Meets battery sourcing requirements;
- Complies with pricing requirements: <$80,000 for SUV, pickup trucks, vans; < $55,000 for other vehicles

2023 Incentive Details

Income Qualified:

- Single people making < $150,000
- Married couples making < $300,000

Conditions:

- Assembled in North America
- Meets battery sourcing requirements
- Complies with pricing requirements:
- Less than $80,000 for SUV, pickup trucks, vans;
- < $55,000 for other vehicles

Case Study: The Coleman Family

- The Colemans are a family of five outside of New London, MN.
- They own a 1,300-square-foot, 3-bedroom home built in 1966, and heat it with propane.
- They have an annual household income of $65,000, which is just under 80 percent of the Area Median Income.
- They qualify for up-front discounts that can cover 100 percent of their electrification costs up to $14,000.

The Colemans IRA Journey

	Replacing	Buying	Est. Cost, installed	Upfront Discount	30% Tax Credit	Final Cost
2023	Propane Range	Electric Range	$749	-$749 (HEERA)		$0
	Old Wiring	Electric Wiring	$1,500	-$1,500 (HEERA)		$0
2024	Tank Propane Water Heater	Heat Pump Water Heater	$3,000	-$1,750 (HEERA)	-$375 (25C)	$875
2025		Weatherization	$1,600	-$1,600 (HEERA)		$0
	Window AC Unit	Ducted Mini-Split Heat Pump	$7,500	-$7,500 (HEERA)		$0
	Propane Clothes Dryer	Heat Pump Clothes Dryer	$798	-$798 (HEERA)		$0
2027	Gas Car	Used EV	$14,000	-$4,000 (25E)		$10,000
Total			**$29,174**	**-$17897**	**-$375**	**$10,075**

Case Study: The Garcia Family

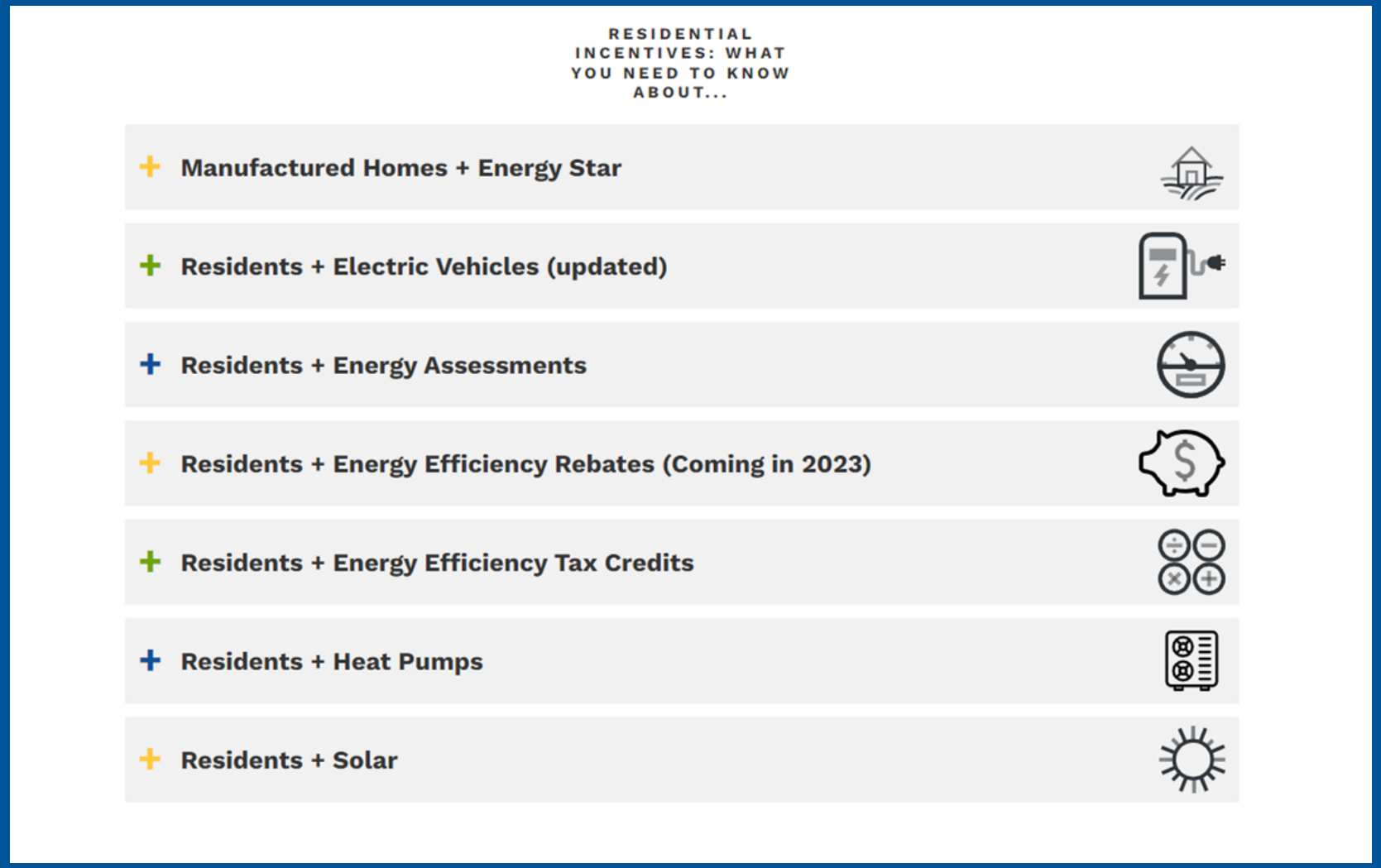
- The Garcias are a family of five in Worthington, MN.
- They own a 1,600-square-foot, 4-bedroom home built in 1972, and heat it with natural gas.
- They have an annual household income of $115,000, which is just under 150% of the Area Median Income.
- They qualify for up-front discounts that can cover 50% of their electrification costs up to $14,000.

The Garcia Family IRA Journey

	Replacing	Buying	Est. Cost, installed	Upfront Discount	30% Tax Credit	Final Cost
2023	Gas Car	Used EV	$17,000		-$4,000	$13,000
		EV Charger	$1,200		-360 (30C)	$840
	60A Electric Panel	200A Electric Panel	$2,000	$1,000 (HEEERA)	-$300 (25C)	$700
		Electric Wiring	$2,500	-$1,250 (HEERA)		$1,250
2024	Gas Range	Induction Range	$1,300	-$650 (HEERA)		$650
2026		Weatherization	$1,600	-$800 (HEERA)		$800
	Gas Furnace & Central AC Unit	Central Heat Pump	$12,000	-$6,000 (HEERA)	-$1,800	$4,200
2028		Rooftop Solar	$19,000		-$5,700 (25D)	$13,300
Total			**$59,600**	**$11,200**	**-$12,610**	**$34,990**

Fill In Year!	Buying	Up-front discount, low-income	Up-front discount, moderate-income	Tax credit
2022	Clean electricity			
	Electrical wiring (pre-wire outlets early!)	100% up to $2,500 (HEEHRA)	50% up to $2,500 (HEEHRA)	
	Electrical panel (if under 100-amps)	100% up to $4,000 (HEEHRA)	50% up to $4,000 (HEEHRA)	30% up to $600 (25C) or 30% uncapped (25D), depending on the corresponding upgrade[9]
	Weatherization	100% up to $1,600 (HEEHRA)	50% up to $1,600 (HEEHRA)	30% up to $1,200 (25C)
	Heat pump	100% up to $8,000 (HEEHRA)	50% up to $8,000 (HEEHRA)	30% up to $2,000 (25C)
	Heat pump water heater	$100% up to $1,750 (HEEHRA)	50% up to $1,750 (HEEHRA)	30% up to $2,000 (25C)
	Electric/induction stove	100% up to $840 (HEEHRA)	50% up to $840 (HEEHRA)	
	Heat pump clothes dryer	100% up to $840 (HEEHRA)	50% up to $840 (HEEHRA)	
	New EV	$7,500 (30D)[10]		
	Used EV	30% up to $1,000 (30C)[11]		
	EV Charger	30% up to $1,000 for some census tracts (30C)		
	Rooftop solar	30% (25D)		
	Geothermal heat pump	30% (25D)		
	Battery storage	30% (25D)		

Inflation Reduction Act (IRA) Consumer Facing Resources



A starter IRA resource: https://www.cleanenergyresourceteams.org/inflation-reduction-act-what-you-need-know

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For businesses and farms

Commercial Solar Incentives

- Project < 1MW: 30% tax credit
- >1 MW: get 30% if meet prevailing wage and apprenticeship requirements
- 2025: Clean Electricity Investment Credit
- **Transferability**

Four Tax Credit Adders

- **Up to 10%:** for using US-manufactured solar products and construction material.
- **Up to 10%:** projects in “energy communities”
- **Up to 10%:** solar projects <5MW located **in** low-income communities
- **Up to 20%:** solar projects < 5MW, built as **part of** an affordable housing project or **to benefit low-income HH**

And Storage!

The most important change for the energy storage industry is that standalone energy storage assets are now eligible for the investment tax credit (ITC).

Image source: Institute on the Env Community Scale Energy Storage Guide

Rural Energy for America Program (REAP)

Who: Rural businesses and agricultural producers

What: Renewable energy and energy efficiency upgrades

New funding: Additional $2 billion for grants and loan guarantees

New: Allows grants to cover 40% (up from 25%) of project costs

https://www.cleanenergyresourceteams.org/grants-farmers-rural-businesses

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Digging into Direct Pay

Direct Pay provisions

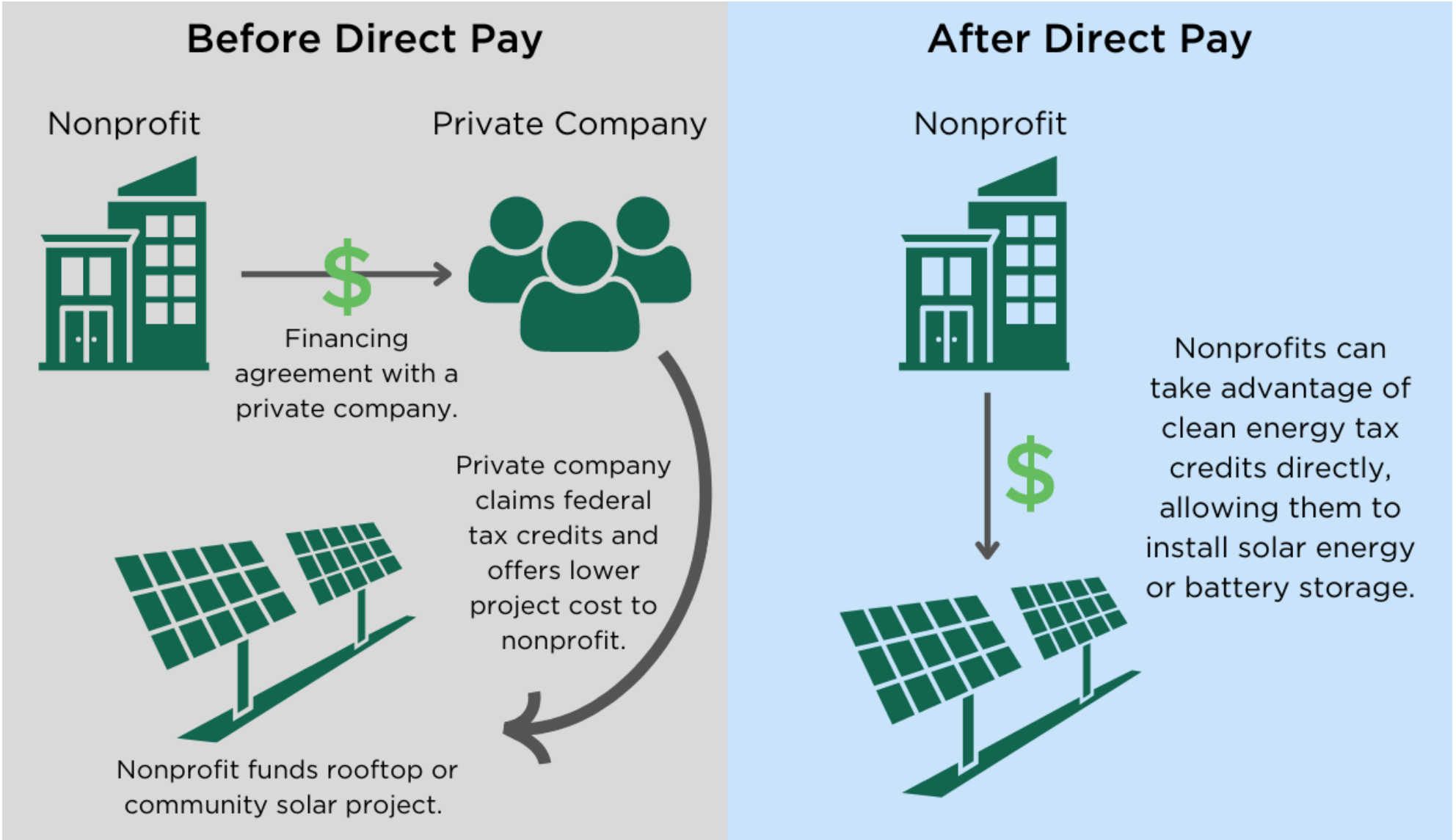
"Direct pay" allows tax-exempt entities to take advantage of new tax incentives.

They can receive a "direct payment" rather than having to work with a tax equity partner.

Eligible technologies include: solar, storage, geothermal, combined heat and power, even commercial clean vehicles

- Cities, Counties, Townships
- Tribal Nations
- Non-profits
- Faith Communities
- Cooperative and Municipal Utilities
- Other governmental entities

How Direct Pay Works



Potential Opportunities

- Local cooperative and municipal utilities to develop community-scale (<5MW projects)
- Perhaps community solar projects
- Local jurisdictions, schools capture more benefits
- Projects without external tax equity

Don’t forget! BIL/IIJA Funding

Kellye Rose: fedquestions.commerce@state.mn.us

Sign up for Energy Specific IIJA email updates: https://public.govdelivery.com/accounts/MNCOMM/subscriber/new?topic_id=MNCOMM_748

Key Takeaways

- Targeted incentives for LMI residents;
- Increases the investment tax credit to 30%, plus adders;
- Standalone storage systems are also eligible for the ITC;
- Used EVs are now eligible for tax credits;
- Huge REAP incentive;
- Tax credits are transferable; and
- Implementation of direct pay

Great Resources

- DSIRE (Database of State Incentives for Renewables & Efficiency)
- ReWiring America
- EnergySage
- US Green Building Council
- Dept. of Energy & IRS
- Clean Energy Resource Teams!!!!

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Peter Lindstrom
plindstr@umn.edu
651-324-4831