



Stacking Incentives

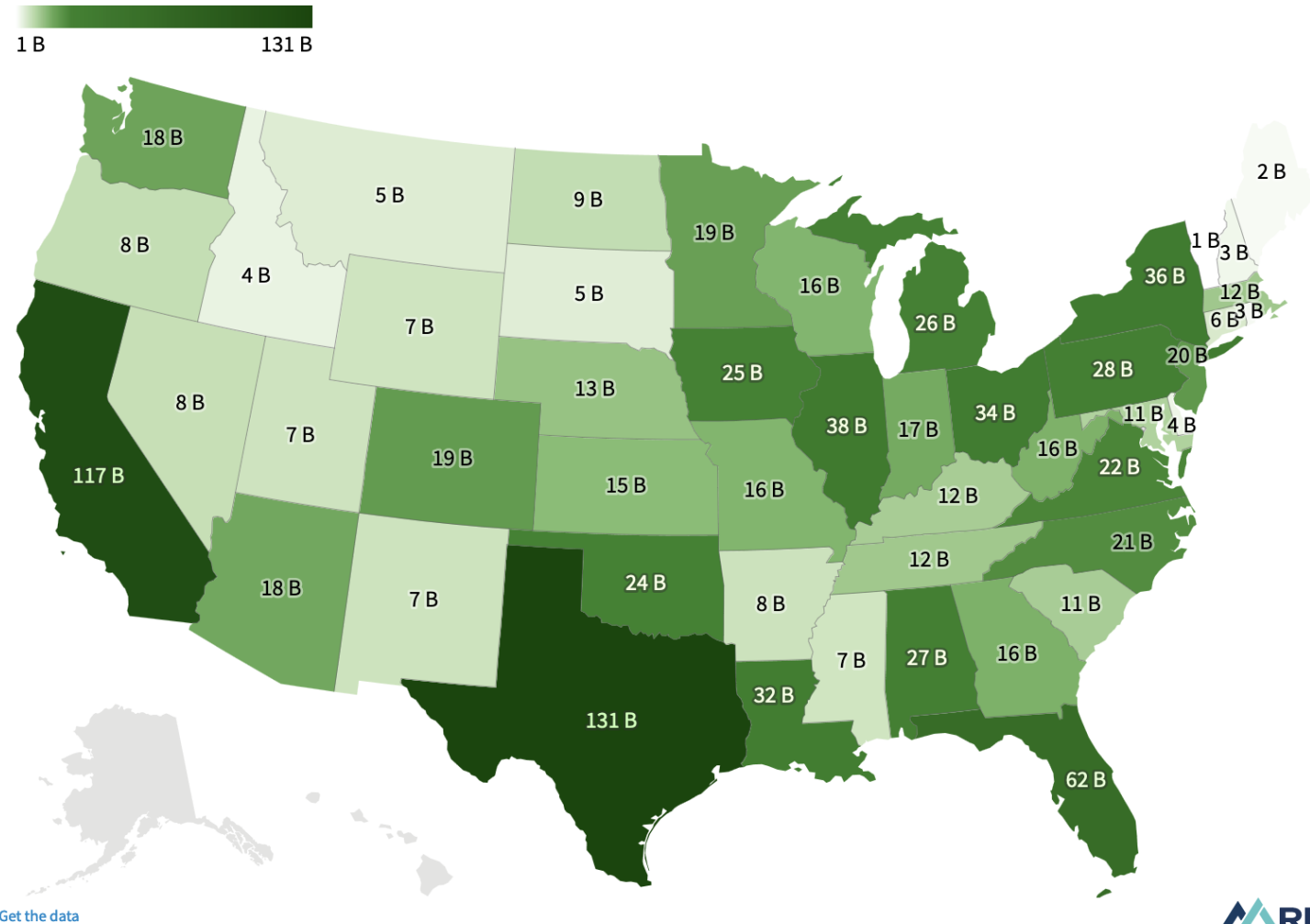
NASEO Policy Conference

February 8, 2024



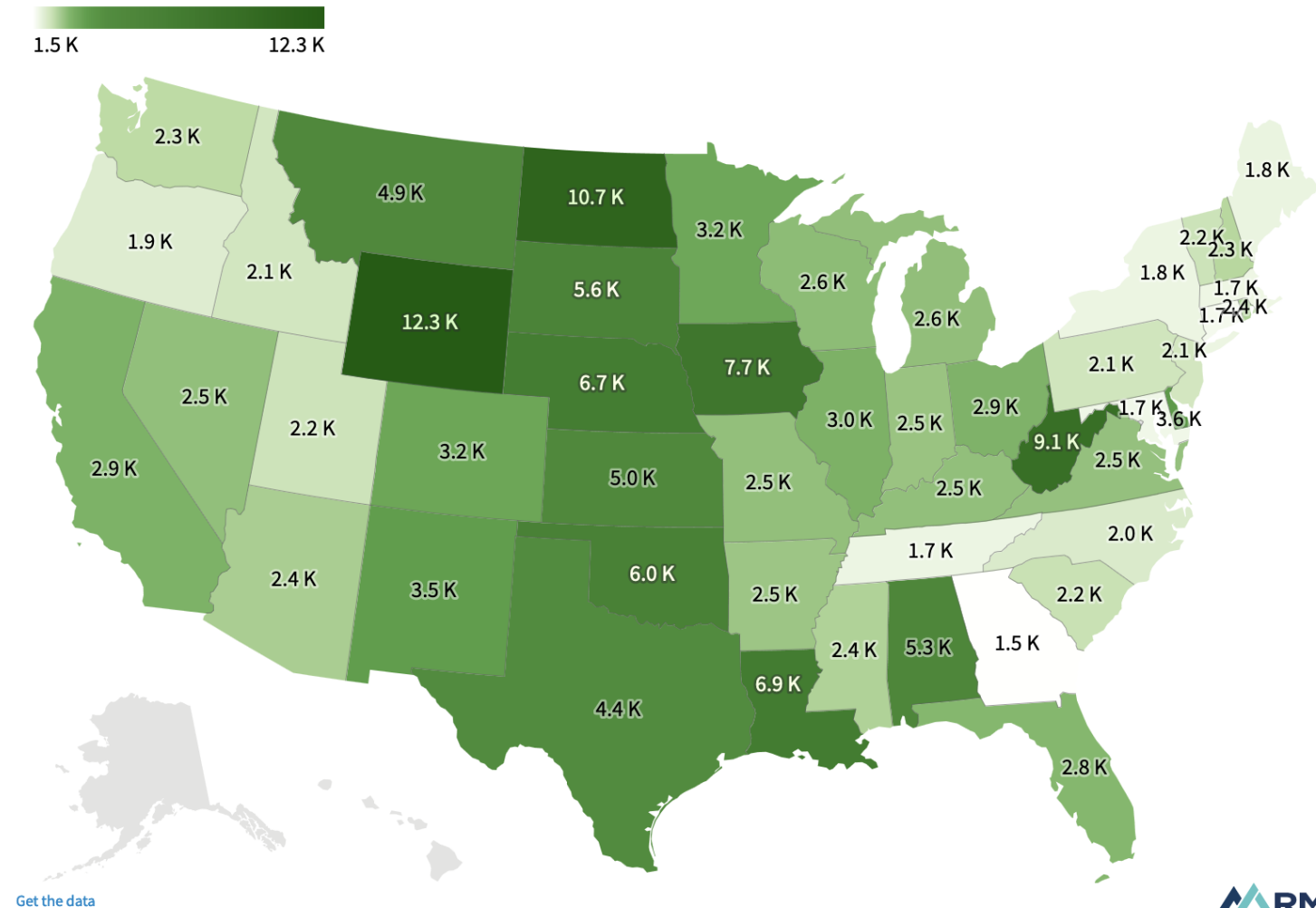
What's possible for federal funding by state?

Investment in states through the Inflation Reduction Act under Climate Ambitious Scenario (\$) by 2030



What's possible for federal funding by state – per capita?

Investment in states through the Inflation Reduction Act under Climate Ambitious Scenario (\$ per capita) by 2030



Get the data



Breakdown by Sector: (some examples)

IRA Funding – Climate Aligned State Estimates

Sector	AZ	GA	IL	MI	NC	OH	PA	TX
Agriculture, Forestry, and Other Land Use	\$ 0.4 Billion	\$ 0.4 Billion	\$ 1.0 Billion	\$ 0.6 Billion	\$ 0.6 Billion	\$ 0.6 Billion	\$ 0.5 Billion	\$ 3.1 Billion
Buildings	\$ 2.3 Billion	\$ 3.4 Billion	\$ 4.7 Billion	\$ 3.8 Billion	\$ 3.5 Billion	\$ 4.4 Billion	\$ 4.3 Billion	\$ 10.1 Billion
Electricity	\$ 8.0 Billion	\$ 1.6 Billion	\$ 11.6 Billion	\$ 10.1 Billion	\$ 6.8 Billion	\$ 12.7 Billion	\$ 4.8 Billion	\$ 46.3 Billion
Industry	\$ 0.6 Billion	\$ 1.7 Billion	\$ 8.2 Billion	\$ 2.3 Billion	\$ 1.2 Billion	\$ 5.1 Billion	\$ 5.9 Billion	\$ 45.8 Billion
Multiple	\$ 1.4 Billion	\$ 1.9 Billion	\$ 3.0 Billion	\$ 2.4 Billion	\$ 2.2 Billion	\$ 2.5 Billion	\$ 3.3 Billion	\$ 7.3 Billion
Oceans and Fish Hatcheries	\$ 0.0 Billion	\$ 0.0 Billion	\$ 0.0 Billion	\$ 0.0 Billion	\$ 0.0 Billion	\$ 0.0 Billion	\$ 0.0 Billion	\$ 0.0 Billion
Transportation	\$ 5.1 Billion	\$ 7.5 Billion	\$ 9.6 Billion	\$ 7.0 Billion	\$ 7.0 Billion	\$ 9.5 Billion	\$ 9.3 Billion	\$ 19.6 Billion
Water	\$ 0.1 Billion	\$ 0.1 Billion	\$ 0.2 Billion	\$ 0.1 Billion	\$ 0.1 Billion	\$ 0.2 Billion	\$ 0.2 Billion	\$ 0.4 Billion
Grand Total	\$ 17.8 Billion	\$ 16.7 Billion	\$ 38.3 Billion	\$ 26.3 Billion	\$ 21.6 Billion	\$ 34.9 Billion	\$ 28.3 Billion	\$ 132.7 Billion

Stacking Incentives Benefits & Barriers

- **Benefits:**
 - **More affordable** projects
 - **Spurs deeper efficiency and health benefits**
 - Programs **share costs** so they can reach more households/businesses
- **Today's Barriers**



**NAVIGATING
NUMEROUS
APPLICATIONS**



**VARYING
PERFORMANCE
REQUIREMENTS**

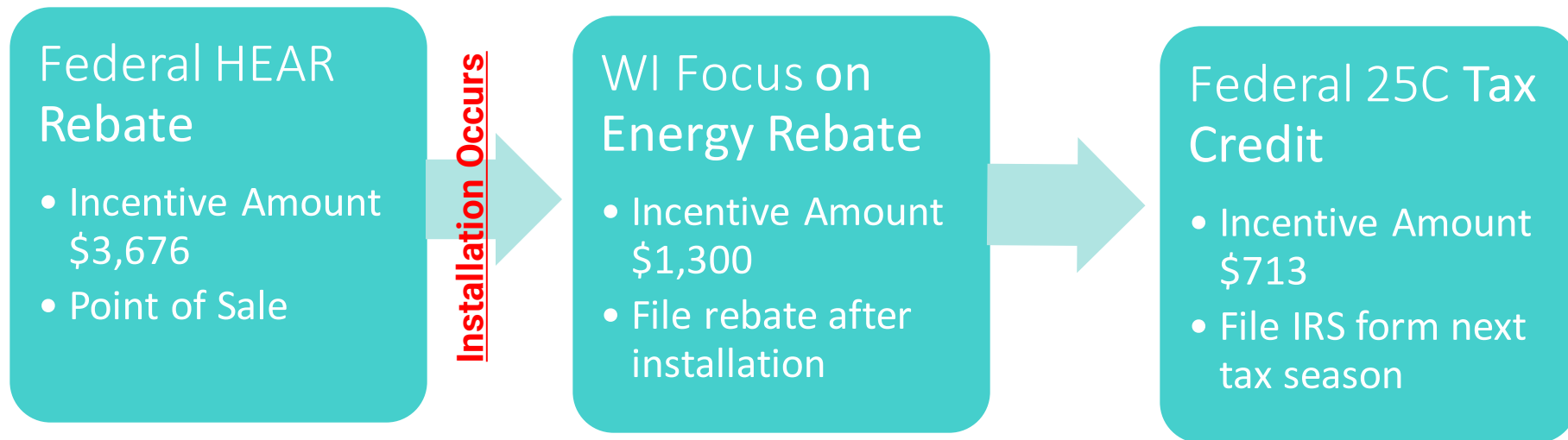
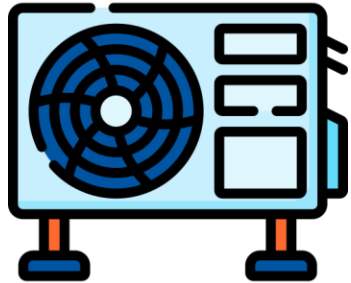


**UNCLEAR
STACKING
GUIDANCE**

Understanding how federal and local incentives stack and the process for stacking can help inform pain points

Example: ASHP installation in Wisconsin for a middle-income household

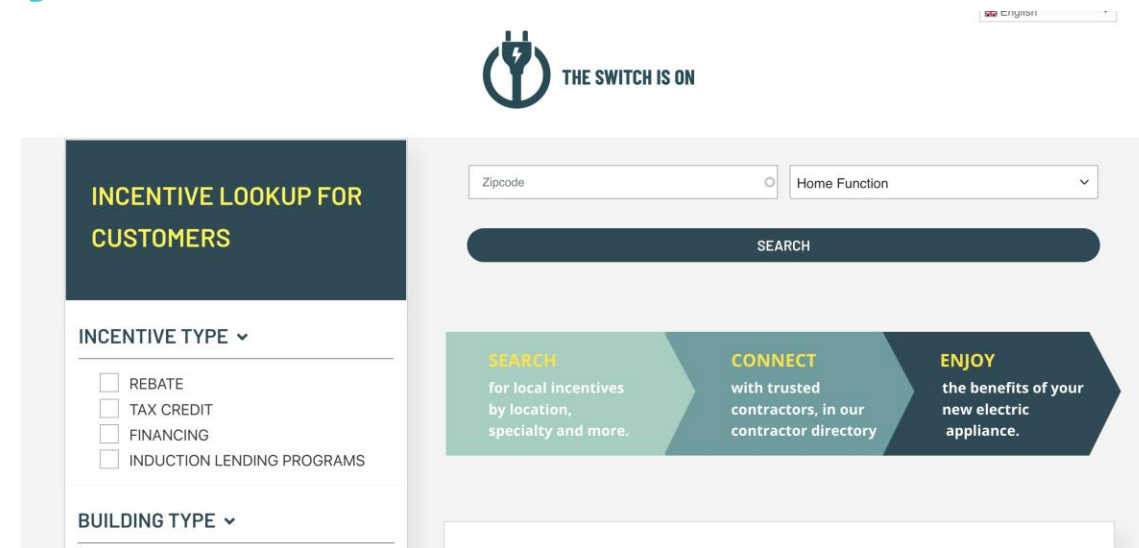
Upfront Cost (Before Incentives) = \$7,352



Final Cost = \$1,663 (after incentives are applied to and received)

Steps that SEOs can take on One-Stop-Shops to Ease Stacking

1. Publish a consumer and contractor resource on the incentives available
2. Provide technical assistance
3. Standardize incentive eligibility
 - Performance standards
 - Income Eligibility
 - Contractors
4. Consolidate applications



The screenshot displays the 'THE SWITCH IS ON' website interface. At the top right, there is a logo featuring a plug icon and the text 'THE SWITCH IS ON'. Below the logo, there is a search bar with two input fields: 'Zipcode' and 'Home Function'. A 'SEARCH' button is positioned below these fields. On the left side, there is a dark blue header with the text 'INCENTIVE LOOKUP FOR CUSTOMERS'. Below this header, there is a section titled 'INCENTIVE TYPE' with a dropdown arrow, containing four checkboxes: 'REBATE', 'TAX CREDIT', 'FINANCING', and 'INDUCTION LENDING PROGRAMS'. Below this section, there is another section titled 'BUILDING TYPE' with a dropdown arrow. On the right side, there is a horizontal flow diagram with three steps: 'SEARCH' (for local incentives by location, specialty and more.), 'CONNECT' (with trusted contractors, in our contractor directory), and 'ENJOY' (the benefits of your new electric appliance).

Gold Star Example: Michigan Saves Contractor Map

Your Location

Filterable Location

Contractor Type
 Residential Commercial Residential Lead Poisoning Prevention Fund

Services
Choosing more than one service will restrict your search to only those contractors that provide ALL selected services

- Air Sealing/Weatherization
- Bathroom/Kitchen Fixtures
- Boilers
- Duct Sealing
- Electrical Upgrades
- Electric Vehicle Charging Stations
- Electrification
- Energy Audits
- Generators
- Geothermal
- Heating, Ventilation, and Air Conditioning (HVAC)
- Heat Pumps/Mini-splits
- Insulation
- Micro Combined Heat and Power (CHP)
- Project Development
- Roofing and Siding

Filterable Services

Search

Mastercraft Heating and Cooling Inc. 2.8 miles away

★★★★★ 4.5

10 Reviews

26135 Plymouth Rd, Redford, MI 48239-2173
313-533-5700
www.mastercraftheating.com/

Heating, Ventilation, and Air Conditioning (HVAC) | Duct Sealing | Boilers | Water Heaters

Contact Mastercraft Heating and Cooling Inc.

Family Heating, Cooling & Electrical of Garden City 3.34 miles away

★★★★★ 5.0

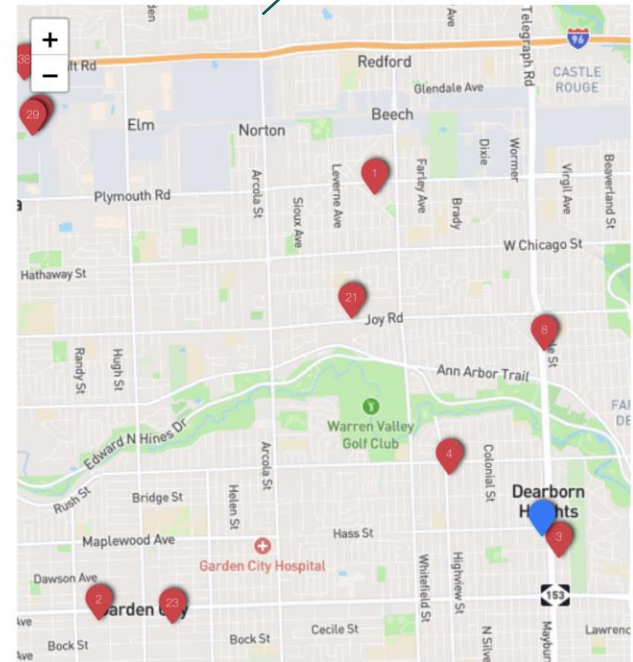
8 Reviews

30210 Ford Rd, Garden City, MI 48135-2371
734-422-8080
familyheating.com

Heating, Ventilation, and Air Conditioning (HVAC) | Boilers | Water Heaters | Electric Vehicle Charging Stations | Generators | Micro Combined Heat and Power (CHP) | Project Development | Heat Pumps/Mini-splits | Electrical Upgrades

Contact Information

Map for Easy Visualization

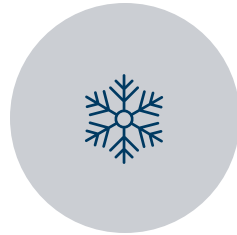


Stacking incentives reveals gaps where states could prioritize supplementing new funding

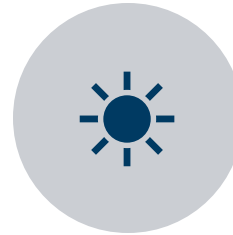
Household Measures:



HEALTH AND
SAFETY
UPGRADES



COLD CLIMATE
HEAT PUMPS



SOLAR PV*



HEAT PUMP
WATER
HEATERS

Customer Classes

1. Localities with low or no local and utility incentives
2. Low-Income residents who can't access federal tax credits
3. Renters and Multi-Family

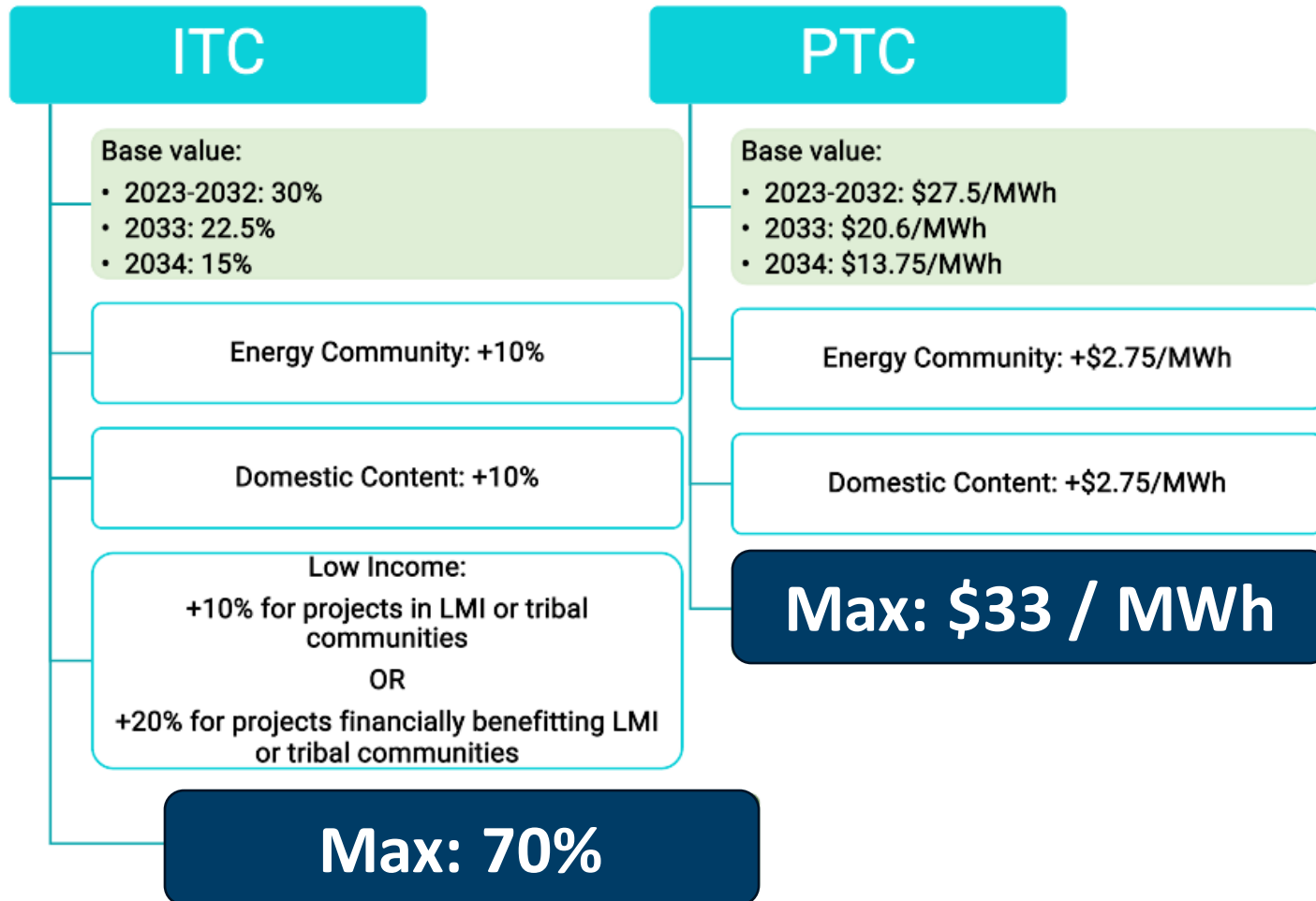
GGRF* is an opportunity for new and innovative financing to fill the gaps

Loans for clean energy and climate projects:

Grants & loans for community solar & residential solar:



”Stacking” new tax credit adders



- ITC and PTC only reach full value with **prevailing wage and apprenticeship requirements**
 - Base ITC is 6% and base PTC is \$5.5 per MW w/o labor requirements
- **Low-income adders** are only for projects under 5 MW and capped at 1.8 GW total
- PTC is tied to inflation and can fluctuate annually

Federal Firepower: ~\$120 billion for clean industry initiatives alone

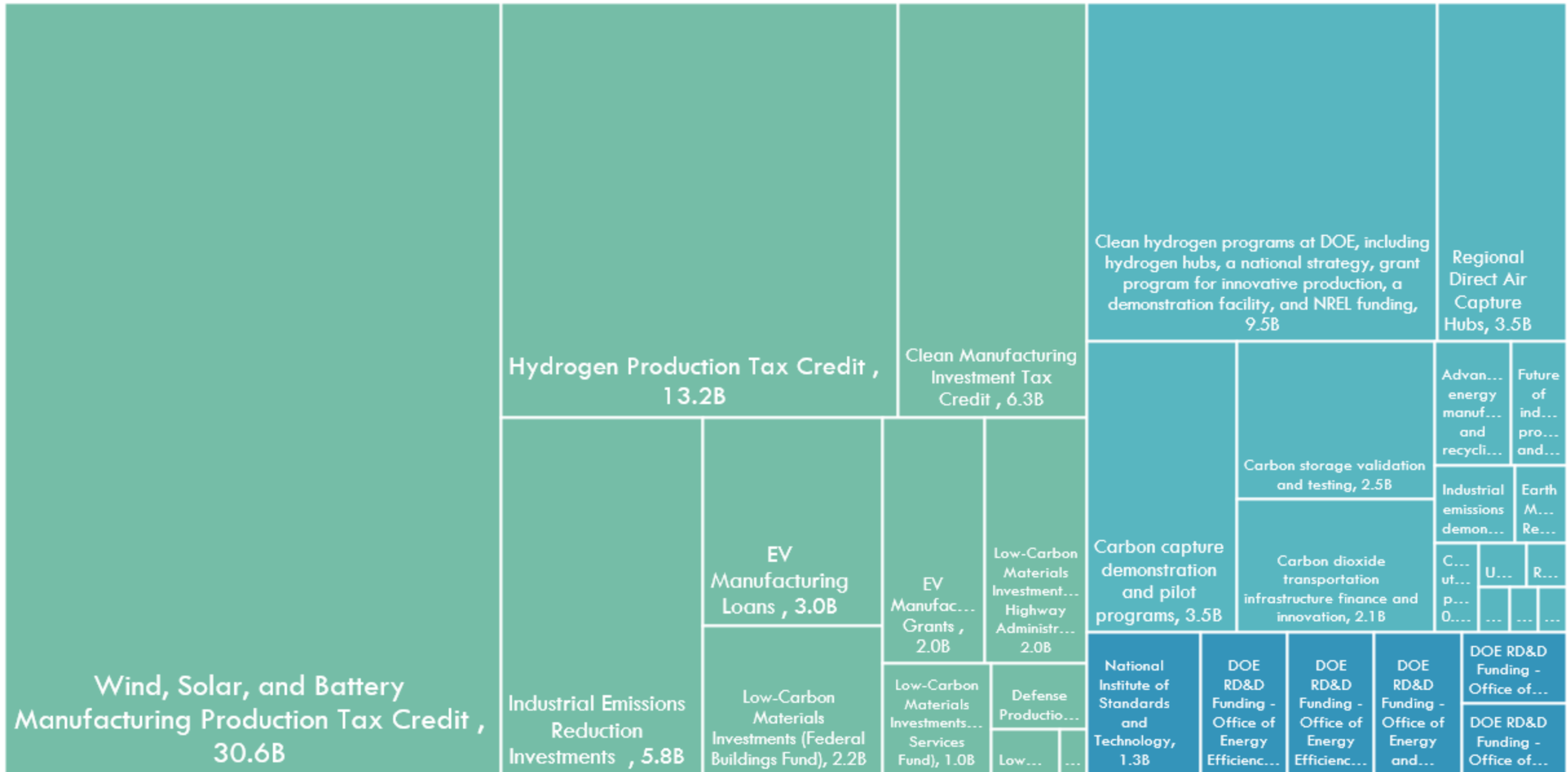
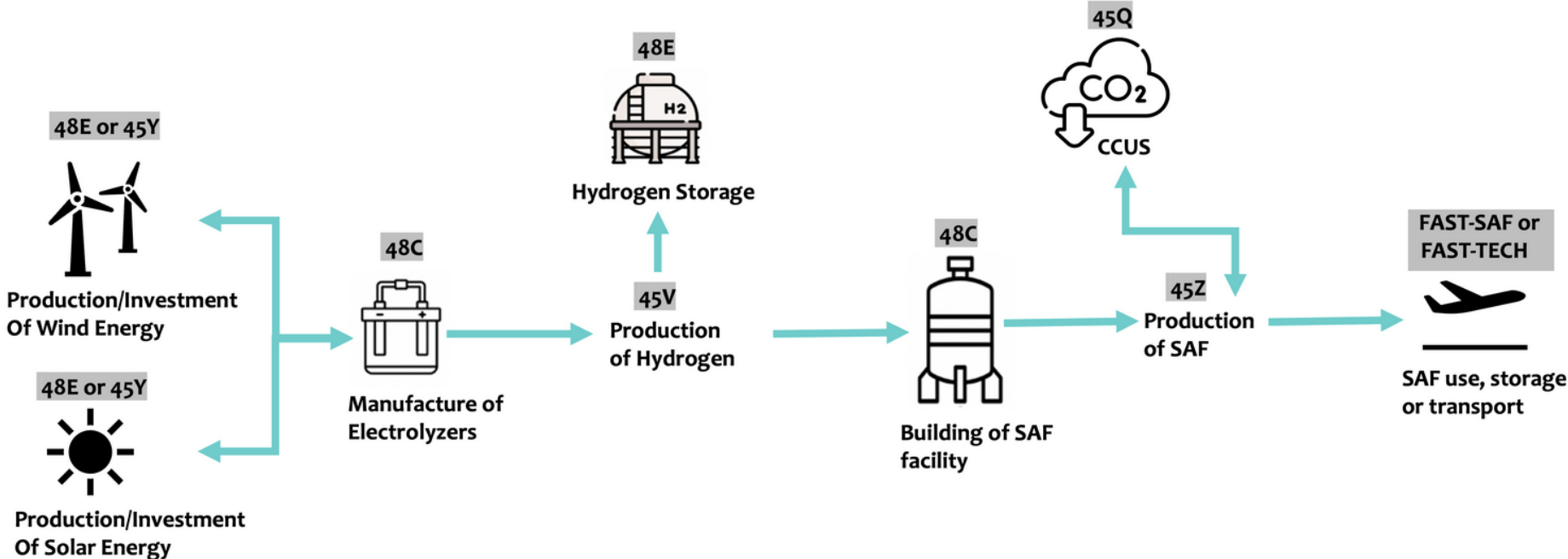


Exhibit 1: IRA incentives along the sustainable aviation fuel (SAF) supply chain.



Industrial Tax Credit Stackability Rules

45V: Hydrogen Production Tax Credit

- Cannot be stacked with 45Q, 45Z, or 48C

45Q: Credit for Carbon Oxide Sequestration

- Cannot be stacked with 45V, 45Z or 48C, or 48E

40B: Sustainable Aviation Fuel Credit

- Can be claimed against income tax or fuel excise tax

45Z: Clean Fuel Production Credit

- Cannot be stacked at a facility that uses 45V or 45Q

48E: Clean Electricity Investment Tax Credit

- Cannot be stacked with 45Y, 48C, or 45Q

45Y: Clean Electricity Production Tax Credit

- Cannot be stacked with 48E or 45Q

45X: Advanced Manufacturing Production Credit

- Cannot claim 45X credit for property produced at facilities that received the 48C credit

48C: Advanced Energy Project Credit

- Cannot be stacked with 45X, 48 ITC, 48E, 45Q, or 45V

These are the stacking rules between the listed credits. There may be rules for credits not covered here

RMI - Energy. Transformed.

39

Deeper Dive on RMI's Technical Support

1. Incentive Stacking

- Bespoke state-versions of the national stacking analysis presented today.
- Select number of local and utility incentives included.

2. Home Energy Rebate Application Template Language

- Multi-Family HER language almost complete
- Further HER and HEAR can be developed

3. CPRG Tax Credit Uptake measure

- Plug-and-play language for CPRG plans
- Support for inclusion in Climate Action Plans and implementation grant proposals

4. Rebate Performance Metric Analysis

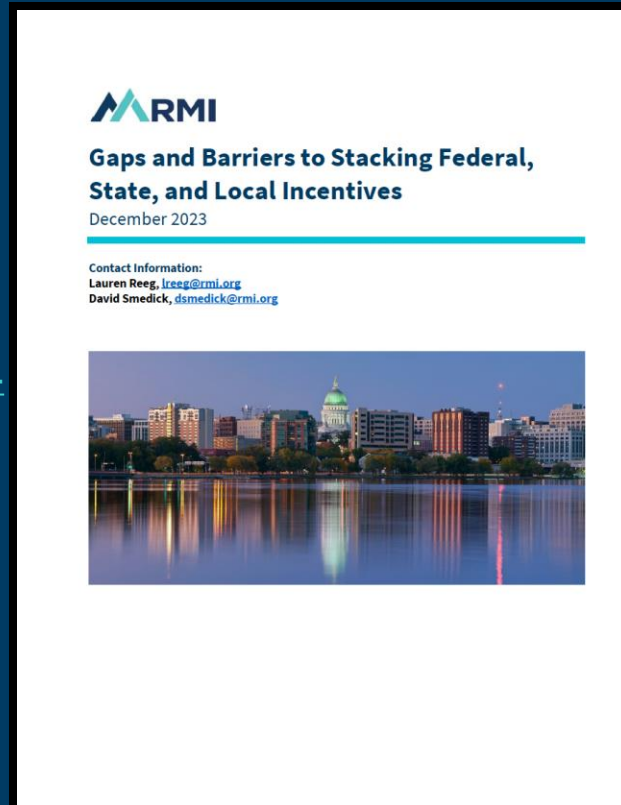
- Utility bill and co-benefit impact analysis using RMI's Green Upgrade Calculator
- Drivers of cost-effective electrification

Stacking Guidance

Stacking Guide

13 pages
links to federal guidance

<https://rmi.org/an-opportunity-to-make-home-retrofits-more-affordable/>



All IRA programs:

Sortable spreadsheet, includes stacking details

<https://rmi.org/breaking-down-the-inflation-reduction-act>

IRA Bill Section		Item Name	By Entity Type			Eligibility		In Detail		Funding Details			
			Tribal Eligibility	Business Eligibility	Non-profit Eligibility	Higher Education Call-Out	Description of Eligible Recipients	Description of Eligible Uses	New or Existing	Direct Pay	Transferable	Stackability	
13301	25C	Energy Efficient Home Improvement Credit	YES	-	-	-	Homeowners of owner-occupied	Can only be used for existing	Existing	No	No	In general, tax	
13302	25D	Residential Clean Energy Credit	YES	-	-	-	Homeowners of owner-occupied	Can be used for new construct	Existing	No	No	In general, tax	
13303	179D	Energy Efficient Commercial Buildings Deduction	YES	YES	-	-	Owners and long-term lessees of commercial buildings. For s	Existing	No	No	Transferability	No rules	
13304	45L	New Energy Efficient Homes Credit	YES	YES	-	-	Home builders	Existing	No	No	Yes. Taxpayer		
13103	48(e), 48E(h)	Increase in Energy Credit for Solar Facilities Placed in Service in	YES	YES	YES	-	Solar and wind facilities with a maximum net output of less t	New	Yes, for tax-ex	Yes	No rules		
13105	45U	Zero-Emission Nuclear Power Production Credit	YES	YES	YES	-	Existing nuclear power plants at time of enactment that are	New	Yes, for tax-ex	Yes	Facilities eligi		
13703	168(e)(3)(B)	Cost Recovery for Qualified Facilities, Qualified Property, and En	YES	-	-	-	See Sections 13701 and 13702 in the Federal Summary.	New	See Sections	See Sections	See Sections		
13701, 1310	45v	Clean Electricity Production Tax Credit (projects placed in service in 2025)	YES	YES	YES	-	13701: Facilities generating electricity for which the greenho	Existing	Yes, for tax-ex	Yes	Credit reduc		
13702, 1310	48	Investment Tax Credit for Energy Property	YES	YES	YES	-	13702: Facilities that generate electricity with a greenhouse	Existing	Yes, for tax-ex	Yes	Credit reduc		
13204	45v	Clean Hydrogen Production Tax Credit	YES	YES	YES	-	Producers of hydrogen in the United States	New	Yes, for tax-ex	Yes	Taxpayers can		

Industrial stacking guidance:

<https://rmi.org/stacking-rules-bonus-credits-and-the-future-industrial-markets-the-ira-aims-to-create>



Thank You!


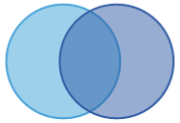



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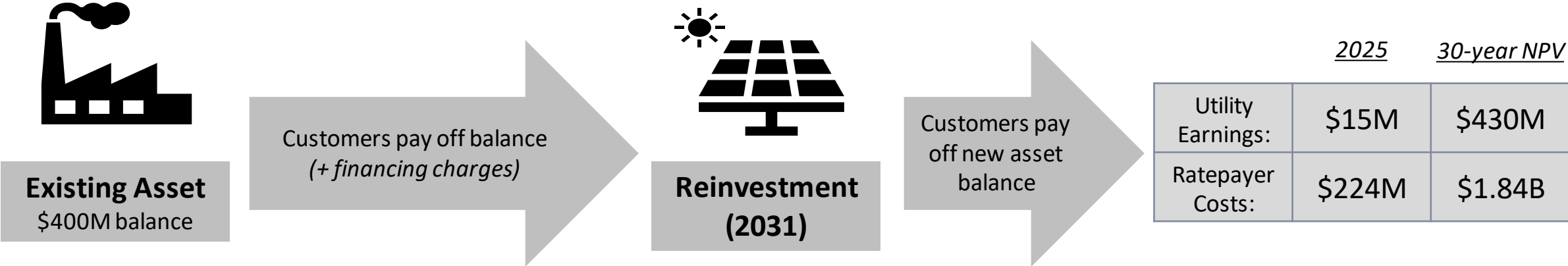
Appendices

Guidelines for Leveraging Other Funding Sources with Home Energy Rebates

Sources of Funding	Allowance	Requirements to Leverage Funding within Same Household	Examples
Other Federal Grants (e.g., funding from the Weatherization Assistance Program (WAP), Low Income Home Energy Assistance Program (LIHEAP))	Can Braid 	Must “braid” and use other federal grants to fund <u>distinct and separable measures</u> from the “single upgrades” or “qualified electrification projects” (QEPs) funded by a Home Energy Rebate.	Energy efficiency (EE) measures from WAP (insulation and air sealing), appliance measures from rebate (heat pump, heat pump water heater, and associated wiring)
Federal Loans or Loan Guarantees (e.g., loan from DOE Revolving Loan Fund (RLF))	Can Co-Fund 	Can co-fund any remaining costs for the <u>same “single upgrade” or “QEP”</u> above the value of the Home Energy Rebate.	Loan from a state’s DOE RLF covers remaining upgrade costs after rebate has been applied
Non-Federal Funding (e.g., EE utility \$, state/local \$)	Can Co-Fund 	Can co-fund any remaining costs for the <u>same “single upgrade” or “QEP”</u> above the value of the Home Energy Rebate.	Utility incentive provides additional funding toward remaining upgrade costs after rebate has been applied
Tax Credits (e.g., federal/state/local tax credits, may vary based on state/local law)*	See IRS or Tax Authority guidance	Refer to IRS guidance on the energy efficiency home improvement tax credit, available at https://www.irs.gov/credits-deductions/home-energy-tax-credits	

One use case: EIR can accelerate reinvestment & lower customer costs by trading utility capital for low-cost debt

Traditional Financing: Reinvestment in 2031



Accelerated Reinvestment with EIR in 2025

