

Electrifying America's Clean Energy Future

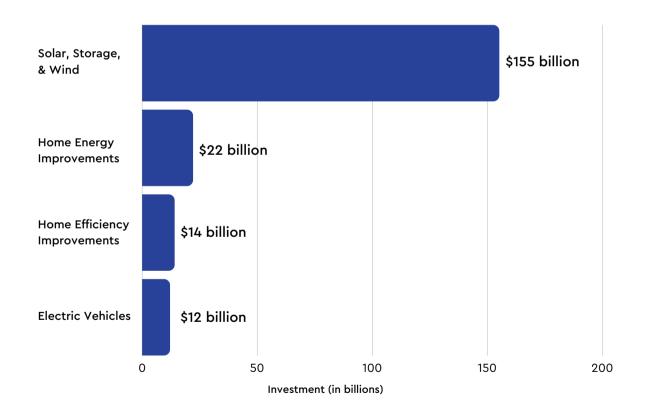
The Inflation Reduction Act (IRA), the nation's largest investment in climate action, was signed into law in August 2022. This historic piece of climate legislation has three main goals:

- 1. Provide incentives to accelerate solar, electric vehicles, and energy efficiency
- 2. Establish the United States as a center of clean energy manufacturing and usage
- 3. Decrease the amount of greenhouse gas emissions and impact on the most affected and vulnerable populations

The IRA offers incentives that encourage consumers, businesses, and manufacturers to choose clean energy. What does this entail? Federal rebates, tax incentives, grants, and lending capacity to encourage the production and purchase of electric appliances, heat pumps, rooftop solar, home battery backup systems, efficiency retrofits, electric vehicles and EV charging, and a number of other home energy improvements that cut costs while boosting efficiency.

Investment Breakdown

Among other policy measures, the IRA calls for \$369 billion to be invested in domestic energy security and climate change. Here is a closer look at the breakdown of funding:



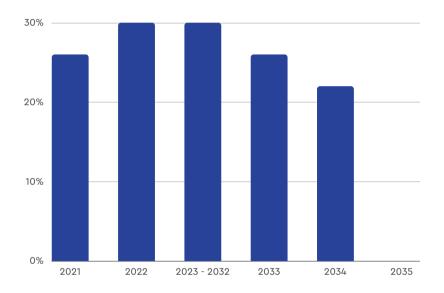
This guide provides a brief overview of the key provisions in the IRA as they relate to the solar energy industry, home electrification, and electric vehicles.

Residential Solar + Storage Provisions

Direct Solar Ownership Tax Credit

One of the most exciting provisions of the act is the extension of the federal tax credit. Since 2006, the solar investment tax credit (ITC) has enabled the U.S. solar industry to grow over 10,000%, creating more than 230,000 jobs while significantly lowering electricity costs for American families.

Prior to the passage of the IRA, the ITC was slated to drop from 26% to 22% at the start of 2023 before disappearing completely in 2024. The newly increased 30% ITC extends to installations completed after December 31, 2022 and before January 1, 2033. It is scheduled to drop to 26% in 2033, 22% in 2034, and expire entirely in 2035.



The tax credit covers all system-related costs, including planning, permitting, equipment, wiring, and labor. There is no cap on the maximum credit amount, and no income restrictions for this tax credit.

Stand-Alone or Add-On Battery Storage

Not only can the ITC be applied toward solar energy systems, but it also extends to stand-alone battery storage systems. If the storage system is installed in a subsequent tax year than the solar installation, it is still eligible for the credit. To be eligible, storage systems must have a minimum 3 kilowatt hour (kWh) capacity, and the credit only extends to expenditures made after December 31, 2022.

Low-Income + Environmental Justice Community Solar Tax Credit

To support environmental justice goals set forth within the law, the IRA allows those located in low-income communities or on tribal land to claim an additional 10% on top of the existing 30% ITC. These bonus credits bring the total potential to a 40-50% credit.



The New York State Energy Research and Development Authority (NYSERDA) offers guidance on communities meeting this criteria. The interactive map can be found on <u>their website</u>, and is subject to updating based on final US Department of Treasury (USDT) guidance.

Efficiency + Electrification Rebates

Energy Efficient Home Improvement Credit

Existing home efficiency upgrades have also been upgraded and extended. Heat pumps and heat pump water heaters are eligible for the 30% ITC (capped at \$2,000). The credit also extends to improvements necessary for the installation of these new systems, including repaired or replaced panelboards, branch circuits, etc.

Homeowners can also claim that 30% (capped at \$1,200) on other efficiency upgrades like replacing exterior windows and doors to better insulate their homes. The IRA provides a \$150 credit for home energy audits for those who are unsure of the best upgrades for their home.

This offer applies to projects completed between January 1, 2023 and the end of 2032, though select upgrades (like hot boiler heaters) are only eligible through the end of 2027.

Home Electrification Rebate Program

The IRA introduces the High-Efficiency Electric Home Rebate (HEEHRA) Program for residential electrification projects, aiming to mitigate the high upfront costs associated with these renovations. The program offers up to \$14,000 in rebates for qualified projects.

Qualified Project	Rebate Cap
HVAC heat pump	\$8,000
Heat pump water heater	\$1,750
Electric cooktop/range/oven or electric heat pump clothes dryer	\$840
Electric panel upgrade	\$4,000
Electrical wiring	\$2,500
Insulation, air sealing, ventilation	\$1,600

These provisions cover 100% of electrification costs for households with annual income below 80% of an area's median income. Households with an annual income between 80-150% of an area's median income can receive 50% of the maximum rebate amount. Households earning above 150% of an area's median income are not eligible for this program.

NYSERDA provides guidance on these areas on this map, subject to updating based on final USDT guidance.

HOMES Rebate Program

The IRA also established the Home Owner Managing Energy Savings (HOMES) rebate program, focusing on whole-home efficiency retrofits. Rebates are determined by total energy savings for the house, either modeled or measured, and household income. Unlike the HEERHA program, rebates are not based on the installation of individual end-use technologies.

Recipient	System Savings >20% to 35%	System Savings 35%+
Single-family homes	50% of the project cost or \$2000, whichever is less	50% of the project cost or \$4000, whichever is less
Multi-family homes	\$2000 per unit; max \$200,000 per building	\$4000 per unit; max \$400,000 per building
Single-family low to moderate income (LMI) households or multi-family with 50%+ LMI residents	80% of the project cost or \$4000 per unit, whichever is less	80% of the project cost or \$8000 per unit, whichever is less

The HOMES and HEERHA rebate programs are expected to begin in 2023 and run through September 30, 2031. The programs may not be combined.

Transportation Incentives

Electric Vehicle Credits

The federal tax credit for electric vehicles (EVs) has been expanded and modified under the IRA. Most notably, only vehicles assembled in North America will be eligible for up to \$7,500, depending on the battery capacity and other criteria defined by the US Department of Energy (DOE). Vehicles that do not meet that criteria may be eligible for less.

For the first time ever, the purchase of a pre-owned EV will be eligible for a \$4,000 tax credit. All rebate offers will take effect in 2023 and will be available through 2032.

All offers do have income limits.

EV Purchase Type	Credit Amount	Income Limits by Tax Filing Status
New, unused, assembled in NA	\$7,500 (max)	Single: <\$150,000Head of household: <\$225,000 Joint: <\$300,000
New, unused, not assembled in NA	\$2,500 - \$7,500	
Used	\$4,000	Single: <\$75,000Head of household: <\$112,000Joint: <\$150,000

Alternative Fuel Tax Credit

The Alternative Fuel Refueling Property Credit has been renewed under the IRA. The 30% credit can be allocated toward alternative fuel vehicle refueling property, such as EV charging equipment (up to \$1,000). Due to technological advancements within the EV industry, the credit extends to bidirectional charging equipment that allows EVs to send excess energy to the grid.

Supporting Provisions

The IRA contains many other provisions supportive of the clean energy transition, specific to the solar industry. A small sample is listed below.

- Incentives for the development of EV charging networks
- Solar manufacturing funding through the Defense Production Act
- Subsidies for rural electrification projects
- Loan authority and/or grants to support new transmission construction
- Grants to support environmental and climate justice groups

Learn More

EmPower Solar will continue to provide guidance to homeowners on the critical provisions of the IRA. For additional information or specific questions, please contact marketing@empowersolar.com or 516-837-3459.