Recent Clean Energy Programs Lower Costs for Families and Are Vital to U.S. Manufacturing, Jobs, and Energy Security

Tax cuts and investments through the *Inflation Reduction Act*, signed into law in 2022, are key to outcompeting China and lowering energy costs for families.

In this report, new data from the Joint Economic Committee – Minority details the amount that families in each state can save on their energy costs because of tax cuts in the *Inflation Reduction Act*. In addition, this report details how the law has spurred new jobs and manufacturing facilities in states across the country – including in industries that produce materials critical to our national security.

This report comes as Congressional Republicans advance a budget bill that would derail growing efforts to strengthen U.S. energy security. Their planned rollback of *Inflation Reduction Act* energy provisions would harm businesses in states across the country, threaten our national security, and raise energy costs for everyday Americans.

Inflation Reduction Act energy programs by the numbers:

- ***2,000+** new clean energy, industrial, and manufacturing facilities have opened in the U.S.*
- ***980,000+** new private sector jobs have been announced across the U.S. at facilities that can receive tax cuts through the law*
- ***3.4 million+** Americans used clean energy tax cuts in the law for home energy improvements*
- ***$460-$1,080:** The amount a typical household can save on annual energy costs through Inflation Reduction Act programs, according to new Committee calculations*
- ***$80 billion**: The estimated amount that private companies would spend on solar and battery manufacturing in other countries instead of in the U.S. if the programs are rolled back*

Investments are key to strengthening U.S. energy security and outcompeting China

The *Inflation Reduction Act*'s investments are vital to the future of the U.S. economy and national security, especially because the Chinese government is heavily investing in its own clean energy sector.

In recent years, China has used policies such as state and government-backed low-interest loans for companies in certain industries to try to dominate several parts of the fast-growing global clean energy sector. For example, the Chinese government invested approximately $230 billion in its electric vehicle (EV) sector between 2009 and 2023. This level of investment has helped Chinese manufacturers rapidly take market share from the U.S. and other economies and has supported technological innovation and R&D. This general pattern of Chinese firms using state investment to undercut competitors in the U.S. is also found in the markets for solar cells and EV batteries – despite the fact that the underlying technologies were originally pioneered by researchers at U.S. labs and universities.

The *Inflation Reduction Act* took on the economic and national security challenges posed by China's unfair industrial subsidies and the decades-long decline in U.S. manufacturing. The law includes

several tax cuts that can help U.S. companies scale up production and regain market share from China in a number of clean energy industries. It also incentivizes – and directly invests in – ways to reduce our reliance on China for the raw or intermediate materials that power clean energy technologies, often known as critical minerals and materials.

These materials are imperative for U.S. national security. For example, neodymium-iron-boron (NdFeB) permanent magnets are a critical component in not only EV motors and wind turbines – but also in defense technologies like submarines and radar systems. As of 2021, the U.S. imported nearly 100 percent of the NdFeB magnets we use, with 75 percent of supply sourced from China. However, in part through the support of tax cuts in the *Inflation Reduction Act*, MP Materials recently began trial production of NdFeB magnets at a new facility in Texas – a key step toward the goal of establishing a fully U.S.-based supply chain for these critical inputs.

Leveling the playing field for the U.S. clean energy sector also strengthens U.S. energy security. Energy demand throughout the United States is projected to increase dramatically in the coming years, in part so that the U.S. has the infrastructure necessary to lead in the development and deployment of artificial intelligence (AI). Major U.S. utilities and other experts have emphasized that renewable power sources and clean energy tax cuts are critical to meeting this demand. *Inflation Reduction Act* tax cuts help bring more new energy projects online and reduce stress on the energy grid – lowering the risk of energy shortages, cutting costs for households and businesses, and underpinning the U.S. effort to win the global AI race.

Tax cuts and investments are strengthening private sector growth and bringing good-paying jobs to states across the country

In addition to addressing U.S. economic, energy, and security challenges, the *Inflation Reduction Act* is spurring private sector growth and opportunity. Since the law was signed, more than 2,034 new clean energy, industrial, and manufacturing facilities have opened across the country. The law's tax cuts and loans have helped spur more than $289 billion in privately-led investment across the U.S. clean energy supply chain, and another $524 billion in future investment has already been announced. Within the first two years of the law being signed, clean energy-related investments – including everything from manufacturing facilities to factory equipment and consumer purchases like EVs and heat pumps – accounted for more than half of total private investment growth in the United States.

These investments have helped to create more than 340,000 manufacturing jobs across the country and are poised to create even more in the coming years. These opportunities are also reaching areas of the country that saw fewer benefits from the economic growth of recent decades, including rural communities and communities that lost manufacturing or fossil fuel-related jobs. This is by design, as the *Inflation Reduction Act* provides additional incentives to companies that make investments in these areas to make sure that job opportunities are spread out across the country.

Since the *Inflation Reduction Act* was passed, companies that received support from the law have opened or are expanding manufacturing facilities across the country. Some examples include:

- A General Motors battery plant near Lordstown, Ohio, which employs 2,200 people as of 2024;
- A Tesla EV manufacturing complex in Austin, Texas, which now employs more than 20,000 people; and
- A Panasonic battery plant in De Soto, Kansas, which will employ at least 4,000 people.

The table below shows the top 20 states sorted by the number of new jobs announced since the passage of the *Inflation Reduction Act* at manufacturing, utility electricity, and industrial facilities eligible to receive tax credits through the law. In total across all 50 states, more than 980,000 new jobs have been announced at facilities that can receive tax cuts through the law.

The Inflation Reduction Act Has Spurred the Creation of Thousands of New Private Sector Jobs in the U.S. – Top 20 States

State	Announced Private Sector Jobs
Texas	169,732
California	66,897
Georgia	60,557
Michigan	48,800
Nevada	42,910
Arizona	39,818
South Carolina	39,740
Tennessee	39,707
Ohio	39,404
North Carolina	39,384
Indiana	37,484
Illinois	32,836
Louisiana	29,671
New York	29,185
Kentucky	28,033
Virginia	21,642
Florida	19,728

New Mexico	15,240
Utah	14,288
Colorado	14,245

Source: Rhodium and MIT-CEEPR's Clean Investment Monitor.
Note: This total includes announced jobs associated with the construction and operation of manufacturing, utility electricity, and industrial facilities eligible for *Inflation Reduction Act* incentives. The total includes jobs associated with both completed facilities and those announced but not yet completed.

These announced jobs are now in jeopardy, in part because of uncertainty around President Trump and Congressional Republicans' plans to rollback energy tax cuts in the *Inflation Reduction Act*. In just the first three months of this year, nearly $8 billion in private sector clean energy investments and 16 new factories were cancelled, scaled back, or closed amidst rising uncertainty about the economy and potential policy changes. The final section of the report further details the risks posed by cutting *Inflation Reduction Act* energy programs.

Tax cuts for home energy improvements and vehicle upgrades lower costs for Americans

Tax cuts in the *Inflation Reduction Act* can lower the upfront cost of energy-saving home appliances and retrofits, which can save people even more money down the line thanks to lower energy use.

The *Inflation Reduction Act* expanded and extended existing federal tax credits for at-home clean energy equipment including solar panels and battery storage, and for energy-efficient improvements like better insulation or new windows and doors – which can all lower families' energy bills. These residential tax cuts include the:

- Residential Clean Energy Credit, which can save people 30 percent off of the cost of purchasing and installing solar panels, battery storage, geothermal heat pumps, and more.
- Energy Efficient Home Improvement Credit, which can save people 30 percent off of the cost of qualifying energy-saving home upgrades and appliances, up to $3,200 a year.

More than 3.4 million American families claimed the Residential Clean Energy and Energy Efficient Home Improvement tax credits on their 2023 tax return. The average family claiming the Residential Clean Energy Credit saved $5,000, while Energy Efficient Home Improvement Credit savings averaged $880 per family.

The *Inflation Reduction Act* also expanded the available tax cuts for those purchasing a clean vehicle. These tax cuts support people who want to buy a new or used clean vehicle, and businesses purchasing a new clean vehicle – as well as the installation of EV chargers. The new clean vehicle credit also supports automakers here in America, because vehicles cannot qualify if they have battery components sourced from China. By helping more Americans purchase an EV,

these tax cuts can considerably lower drivers' costs over time. Studies have shown that the long-term costs of owning a clean vehicle can be significantly lower than the costs associated with a comparable gas-powered vehicle. For a new compact sedan, for example, an EV owner can expect to save more than $10,000 over seven years compared to an owner of a comparable gas-powered vehicle.

These tax cuts can help Americans significantly lower their monthly and annual energy costs; they can also facilitate home upgrades that increase home values and protect against power outages. **Below are original estimates by Joint Economic Committee – Minority staff of how much households in each state can save annually on energy costs** through the tax cuts for home and appliance upgrades supported by the *Inflation Reduction Act*. Annual cost savings estimates were calculated using 2023 average monthly energy cost data for each state from the U.S. Energy Information Administration (EIA) and the range of energy cost savings (30–70 percent) associated with relevant home retrofits in prior research. **Our new data show that a typical U.S. household can save approximately $460–$1,080 on their annual energy costs.**

Estimated Annual Household Energy Cost Savings Through the Inflation Reduction Act

State	Average Annual Cost Savings	State	Average Annual Cost Savings
Alabama	$590–1,370	Montana	$390–920
Alaska	$500–1,160	Nebraska	$400–940
Arizona	$530–1,250	Nevada	$520–1220
Arkansas	$460–1,080	New Hampshire	$610–1,420
California	$520–1,220	New Jersey	$410–950
Colorado	$340–800	New Mexico	$330–770
Connecticut	$730–1,700	New York	$450–1,060
Delaware	$500–1,160	North Carolina	$460–1,070
District of Columbia	$370–870	North Dakota	$420–990
Florida	$610–1,410	Ohio	$450–1,050
Georgia	$510–1,190	Oklahoma	$460–1,080
Hawaii	$770–1,790	Oregon	$420–990
Idaho	$380–900	Pennsylvania	$520–1,200
Illinois	$380–880	Rhode Island	$540–1,260
Indiana	$470–1,100	South Carolina	$500–1,180
Iowa	$410–950	South Dakota	$450–1,060
Kansas	$420–990	Tennessee	$490–1,140

Kentucky	$450–1,060	Texas	$600–1,390
Louisiana	$510–1,200	Utah	$310–710
Maine	$550–1,290	Vermont	$420–980
Maryland	$530–1,250	Virginia	$510–1,190
Massachusetts	$600–1,390	Washington	$390–900
Michigan	$410–950	West Virginia	$500–1,160
Minnesota	$400–930	Wisconsin	$400–930
Mississippi	$550–1,290	Wyoming	$360–830
Missouri	$450–1,060		

Source: JEC calculations. Annual cost savings estimates were calculated using 2023 average monthly energy cost data for each state from EIA and the range of energy cost savings (30-70%) associated with relevant home retrofits in prior research.

Note: Households can put their zip code and utility provider into Rewiring America's appliance upgrade calculator to identify the relevant programs for which they are eligible.

Proposed roll backs would come at a steep cost to the U.S. economy, national security, and American families

President Trump and Congressional Republicans' proposed cuts to *Inflation Reduction Act* energy programs would derail much-needed efforts to bolster U.S. energy security and lower household energy costs.

The latest legislative text from House Republicans would roll back key *Inflation Reduction Act* tax cuts. For instance, it would put an early end to the 45X Advanced Manufacturing Credit, which is used by U.S. companies to produce batteries, critical minerals, and other energy components. It would also impose highly burdensome and unclear rules on eligible businesses' operations and limit their financing options – changes that amount to a "backdoor repeal" – even before the incentives are fully eliminated. This would undermine the long-term certainty that clean energy and manufacturing firms depend on to grow.

Researchers estimate that cuts to **the Advanced Manufacturing Credit and other *Inflation Reduction Act* clean energy and manufacturing tax cuts would lead private companies to spend $80 billion on solar and battery manufacturing in other countries instead of in the U.S. Losing out on this manufacturing capacity would also cost the U.S approximately $50 billion each year in lost exports.** A separate independent study estimates that rollbacks of key clean energy policies would raise energy costs for the U.S. industrial sector by $8-14 billion in 2030 – making it harder for businesses to start and expand here in the U.S. Cutting support for domestic manufacturing would especially undermine efforts to reduce reliance on Chinese suppliers for critical minerals and other technology inputs, increasing China's ability to disrupt the U.S. economy and our military operations. Republicans' current plan would also end home energy and efficiency tax cuts available to households, making it harder for them to afford energy-saving upgrades – **which can help a typical family save up to $1,080 each year.**