

What the Inflation Reduction Act does for green energy

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The Inflation Reduction Act is expected to reshape the American energy industry by putting non-fossil fuel alternatives in reach of more people. But while the spending bill is predicted to get the United States much closer to its emissions goals, it's still not a panacea for the climate crisis, and many environmental advocates aren't satisfied.

The legislation, signed Aug. 16 by President Joe Biden, does **a lot of things**, including tackling deficit reduction, health care access and prescription drug pricing, but addressing the energy industry and climate change is one of its most significant aims.

"This is very much climate legislation," said Brian Murray, interim director of the Nicholas Institute for Energy, Environment & Sustainability at Duke University, who added the bill offers "a significant bump" in the nation's projected ability to reduce our greenhouse gas emissions.

WATCH: How Democrats coalesced around the Inflation Reduction Act

The goal of the bill is to put the country on a path to reduce greenhouse gasses by 40 percent below 2005 levels by 2030, Murray said – a meaningful increase compared to our current path, which is projected to reach a 25-percent reduction. (The U.S. has actually pledged to lower emissions by 50 to 52 percent under that same framework as part of the Paris Agreement, he noted.)

That's an important breakthrough for every living thing on Earth, but there also are more mundane benefits, including for anyone who drives a car or pays utility bills and has felt fuel costs rise this year.

Every part of the economy has energy running through it — it literally "powers everything in our lives," said Abigail Dillen, president of Earthjustice, a nonprofit that litigates environmental issues. But how we source that energy has a massive impact on the planet.

The use and production of energy, which includes fuels that power vehicles and buildings, makes up the **largest contribution of greenhouse gas emissions across the globe**, according to the EPA. In the U.S., the **transportation, electric power and industry sectors** each make up around 25 percent of national emissions, the agency says.



3 ways the IRA incentivizes greener investments

Go electric with your appliances → Get money back from home energy rebate programs

Invest in heat pumps, rooftop solar, electric HVAC and water heaters → Get tax credits

Buy a new or used electric vehicle that meets requirements → Get money off at the point of sale

Source: Summary of the Energy Security and Climate Change Investments in the Inflation Reduction Act of 2022

Graphic by Megan McGrew/PBS NewsHour

Building up the U.S. capacity to build renewable technology, like solar panels or electric vehicle components, and then ensuring people can use those things more easily by shoring up energy infrastructure is a key facet of the Inflation Reduction Act. Meanwhile, consumer-oriented provisions meant to make it more affordable for those with lower to middle incomes to access electric-powered options, from cars to heat pump systems and more.

"When we're talking about energy, we're talking about the biggest climate problem and opportunity that we have," Dillen said. The bill, she said, provides "a whole new set of tools to counter the entrenched influence of fossil fuels."

In order to win West Virginia Sen. Joe Manchin's approval, wins for oil and gas production were also added to the Inflation Reduction Act – a fact that environmental advocates aren't keen on.

Here's a look at why the bill emphasizes energy, what that means for consumers and how these changes aim to bolster the U.S.'s fight against climate change.

How will energy provisions in the Inflation Reduction Act benefit consumers?

The bill includes a number of tax credits and other financial incentives aimed at making clean energy options more accessible for consumers, with a particular focus on those who are lower- to middle-income. Those benefits include bolstering increasing the affordability of heat pumps and other home infrastructure that revolves around electric power.

With the bill, individual Americans don't have to carry the weight of the world on their shoulders to "be a solo actor trying to figure out how to put solar panels on your house and buy an electric vehicle at enormous expense," Dillen said. "You can be part of a trend in this country that's collectively driving a catalytic change in major emissions reductions."

According to a **summary released by Senate Democrats**, some of the funding aimed at consumers includes:

- **\$9 billion in home energy rebate programs** to help people electrify their home appliances and for energy-efficient retrofits, with a focus on low-income consumers
- **10 years of consumer tax credits** to make heat pumps, rooftop solar, electric HVAC and water heaters more affordable, which make homes more energy efficient
- **\$4,000 in consumer tax credits** for lower- and middle-income individuals who buy used electric vehicles, and up to \$7,500 tax credits for new EVs
- **\$1 billion grant program** to make affordable housing more energy efficient

The national conversation around reducing greenhouse gas emissions and pollution from energy sources historically has focused on retiring fossil fuel plants and otherwise moving away from oil and gas, i.e. tackling the supply side of the energy equation, said Destenie Nock, an assistant professor of civil and environmental engineering at Carnegie Mellon University. But multiple elements of this bill aim to help reduce fossil fuel generation by also targeting the demand side of things.

"If we just don't have as much demand for fossil fuels because we've electrified our vehicles and more people are using heat pumps, then that will also lessen the demand on fossil fuel," Nock said. "And the economics of the market will start crowding out fossil fuel from the energy space."

While there is funding in the bill aimed at supporting lower-income households and efforts to make affordable housing more efficient, many of the consumer incentives benefit homeowners. That means there's "virtually nothing for tenants," said John Paul Mejia, a national spokesperson for the Sunrise Movement, who also noted that there isn't any funding for expanding public transit, which would more directly benefit working people.

How will these provisions affect the energy industry?

A key facet of the bill locks in tax credits for the next decade for solar and wind energy, which were previously limited to one to three years. It's a move that will also help spur new jobs and economic development within sectors that are tied to clean energy, Nock said.

Provisions are also included for domestic mining of materials that are needed to make solar panels and batteries, as well as for the offshore wind development industry, "like building large ships that are needed to build offshore wind because we just don't have that right now," she added.

READ MORE: Analysis: Why Biden declared solar panels, heat pumps integral to national defense

Bolstering domestic production of clean energy has national security implications. The package includes more than \$60 billion to support "on-shore clean energy manufacturing in the U.S.," with the goal of easing inflation and making future price shocks less likely by reducing the costs associated with clean energy options, according to the **summary** of energy and climate provisions within the bill. Additional funding **includes**:

- **Production tax credits** to help U.S. manufacturers accelerate production of solar panels, wind turbines, batteries, and process key minerals
- **\$10 billion investment tax credit** for new manufacturing facilities that make clean tech like EVs, wind turbines and solar panels
- **\$500 million** to use the Defense Production Act to speed manufacturing of things like heat pumps, as well as processing critical minerals
- **\$2 billion in grants** to help automaker facilities transition to clean vehicle production
- **Up to \$20 billion in loans** to construct new manufacturing facilities for clean vehicles

The U.S. has historically been a top emitter of greenhouse gasses, but experts say it's also uniquely positioned to be a global leader in what an effective fight against climate change looks like.

The bill offers a chance to "have climate action on a scale to bring others along and to be demonstrating in real time the technologies that can be deployed not only in the U.S., but everywhere else, too," Dillen said.

What are some drawbacks of the Inflation Reduction Act?

This bill still includes measures that benefit the U.S. oil and gas industry, and a separate side deal between senators could pave the way for the **construction of a natural gas pipeline** in Manchin's home state.

One vexing detail for environmental advocates is that some funding measures can be used to support carbon capture and storage. That process involves fossil fuel power plants capturing the carbon dioxide that would normally be emitted into the atmosphere and storing it below ground instead, Murray said.

But it's not clear how that storage could affect the environment long-term, Dillen noted. She also pointed out that carbon capture and storage doesn't address the pollution generated by the burning of fossil fuels, including soot and toxic wastewater. Those byproducts can have a negative impact on the health of people who live close to those facilities, which are often located in or near communities of color and low-income communities.

That's why incentivizing carbon capture and storage, experts say, can extend the life of the fossil fuel industry in ways that aren't conducive to sustainability or for public health.

While the bill allows the leasing of federal lands and waters for renewable energy, it also **ties in leases for fossil fuel** as part of the bargain. That means in order for solar and wind projects to access new acreage, a certain amount of oil and gas projects must also get the go ahead for new leasing.

"In other words, if the oil and gas companies determine that they want to bid on those [leases], they feel like they can make money on them, [then] they will have the opportunity to do so," Murray said. But just because a company acquires acres through a lease doesn't mean it will actually follow through with development, experts say.

How do environmental advocacy groups feel about the Inflation Reduction Act?

Environmental advocacy groups have had mixed reactions to the Inflation Reduction Act. Many have said that though the bill is a massive step in the right direction on climate, the U.S. still has far to go when it comes to eliminating its reliance on fossil fuels. The fact that oil and gas actually benefits from the bill is a source of frustration.



FILE PHOTO: Environmental activists protest outside the White House on June 30, 2021. Evelyn Hockstein/Reuters

Tackling environmental justice

The Inflation Reduction Act includes **billions of dollars** aimed at funding community-led efforts to address the effects of climate change as well as pollution, with an emphasis on marginalized communities. That's significant because those impacts are different depending on where you are in the country, and even where you are in a community.

"The climate is a global systems problem, but the solutions happen at the level of the city and the county," said Abigail Dillen, president of Earthjustice, a nonprofit that litigates environmental issues.

She noted that many people will be eager to put this unprecedented influx of money to good use, but that "it's going to take a lot of work to make it all go."

"How could we in 2022, when we are already experiencing catastrophic climate disasters, include the further entrenchment of fossil fuels in a supposed climate bill?" Mejia said.

The Sunrise Movement, which Mejia represents, strongly advocated for the bill's passage, while emphasizing that they don't believe it goes far enough. Instead, the group advocates for additional policy drafted within the framework of the **Green New Deal**.

The Climate Justice Alliance has gone so far as to oppose the bill, arguing that its harms currently outweigh its benefits and encouraging the rejection of any moves to bolster fossil fuel production, according to a **statement** from the organization's website.

Ozawa Bineshi Albert, who is co-executive director of the Climate Justice Alliance, supports the funding allocated for climate and environmental justice efforts within communities that the bill offers, but wants to see more of that type of investment. She contrasts that often competitive grant-based funding with the "direct expenditures" to oil and gas infrastructure in the bill, and notes that there is a need for more emphasis on meaningful collaboration with front-line communities that are most impacted by climate change and by industry pollution.

"Democrats should pass the Inflation Reduction Act, but not pat themselves on the back, and realize that this is merely the starting gun for what should be a decades long, intense decarbonization effort in this country that centers working people, racial and economic justice at its root," Mejia said.

By – **Bella Isaacs-Thomas**

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