

Clean Energy Is Booming in the U.S. The Election Could Change That.

Trump has suggested he would dismantle the Inflation Reduction Act, which has reshaped America's energy landscape. It won't be easy.



Listen to this article · 12:14 min [Learn more](#)



By Brad Plumer

Reporting from Washington

Oct. 30, 2024

Sign up for the On Politics newsletter. Your guide to the 2024 elections.
[Get it sent to your inbox.](#)

Over the last two years, a surge in clean energy manufacturing has helped push U.S. factory construction to the highest level in half a century. Solar power installations and electric car sales are breaking records. Even Republican-led states like Montana and Utah are writing climate plans to secure federal cash.

Yet the law driving this dizzying transformation of America's energy landscape, the 2022 Inflation Reduction Act, is facing a highly uncertain future as next week's election looms.

If he returns to the White House, former President Donald J. Trump has suggested he would gut the law, which is expected to pour as much as \$1.2 trillion over the next decade into technologies to fight climate change such as wind turbines, solar panels, nuclear reactors, carbon capture and E.V.s, as well as the factories to supply them.

“My plan will terminate the Green New Deal, which I call the Green New Scam,” Mr. Trump said in September, using his catchall phrase for climate policies. “We will rescind all unspent funds under the misnamed Inflation Reduction Act.”

By contrast, Vice President Kamala Harris, who cast the law’s tiebreaking vote in the Senate, hopes to accelerate the growth of clean energy to slash greenhouse gas emissions, though that would require speeding up federal permits while overcoming local opposition and electric grid constraints.

While the Inflation Reduction Act is billed as the biggest climate law in United States history, analysts say it is too early to judge its impact.

“The law has a ten-year window and we’re only two years in,” said Andrew Reagan, executive director of Clean Energy for America, an advocacy group. “A big question for this election is whether we’ll continue to see a rapid acceleration of clean energy that helps us meet our climate targets and catch up with adversaries like China.”

Since the law passed, companies have announced \$154 billion in investments for U.S. factories to make clean energy technologies, spurred on by tax credits. But only about half of that, or \$86.7 billion, represents factories that are currently operating or under construction, according to data from Atlas Public Policy, a research firm.

Some companies may be waiting to see how the election shakes out. “There is uncertainty,” Mr. Reagan said. “People are holding onto projects.”

One recent survey of 900 companies in the clean energy industry found that 53 percent said they would lose business if the Inflation Reduction Act were repealed, and 21 percent said they would have to shed workers.

It could prove difficult for Mr. Trump to dismantle the law entirely. Roughly 80 percent of new manufacturing investments has so far flowed to Republican congressional districts, including electric-vehicle plants in Georgia and battery

factories in South Carolina, according to Atlas Public Policy. In August, 18 House Republicans wrote a letter to Speaker Mike Johnson asking him to retain key clean-energy tax credits.



Corn in Nebraska. The Inflation Reduction Act has poured funding into nascent technologies like biofuels for aviation. Jenn Ackerman and Tim Gruber for The New York Times

But Mr. Trump could push Congressional Republicans to repeal portions, such as tax breaks for electric vehicles and charging stations, or make certain credits hard to get. Some conservative groups have recommended that Mr. Trump freeze activity at the Energy Department's Loan Programs Office. As of September, that office had roughly \$210 billion in loan authority to help promote novel technologies.

The Trump campaign did not respond to a request for comment.

Many companies hope the law will stay largely intact no matter who wins next week.

KORE Power, a battery cell developer, recently received a conditional commitment for an \$850 million loan from the Energy Department to help construct an enormous factory in Buckeye, Ariz., that could produce enough lithium ion cells for more than 28,000 electric cars annually. The loan has yet to be finalized, but Jay Bellows, the company's president, is optimistic it will move forward even under a Trump administration. Most lithium ion cells today are made in China and moving supply chains to the United States is something both parties can support, he said.

"This is about energy independence, right? It's about energy security," Mr. Bellows said. "This is one topic that both sides can get behind."

'It's going to take a little more time'

Perhaps the most visible impact of the Inflation Reduction Act so far has been a surge of domestic manufacturing. Four years ago, the United States had hardly any capacity to build solar panels, wind turbines or lithium ion batteries. Most of that happened in China and elsewhere.

That's quickly changing.

The law gave hefty tax breaks to wind and solar developers if they used components made in the United States. It also doled out additional tax credits for domestic clean-energy factories. In addition, billions of dollars in funding from the 2021 bipartisan infrastructure law have allowed the Biden administration to nurture domestic supply chains.

In West Branch, Iowa, a factory that made nacelles for wind turbines but halted production in 2013 will restart next year. Nordex Group, the European company that owns the plant, had largely imported turbine parts into the United States in recent years. The law's manufacturing tax credits shifted that calculus.

"It's a big change," said Manav Sharma, chief executive of Nordex Group's North American division.

Those tax credits have been so popular that the law is now expected to cost more than originally estimated, maybe as much as \$1.2 trillion over 10 years. Critics point out that the law might no longer cut the deficit, as Democrats initially promised.

The law has also poured money into uncertain technologies that might one day help tackle climate change. In South Dakota, the biofuels company Gevo is preparing to build a first-of-its-kind plant that will turn cornstarch into 60 million gallons of jet fuel each year to cut airplane emissions. The company plans to take advantage of new federal tax credits for sustainable aviation fuel as well as a \$1.46 billion loan guarantee from the Energy Department.

“I think the economics work, but project costs are going to be higher on the first plant,” said Patrick Gruber, Gevo’s chief executive. The federal funding was important, he said, “so we can go build it and prove it can be done.”

Despite all the activity, polls suggest that few Americans know much about the Inflation Reduction Act or think it has improved their lives. It can take years for planned factories to get built and staff up.

“We’re starting to see more members of Congress aware that there are lots of jobs at stake,” said Jeff Navin, a co-founder of Boundary Stone Partners, an energy lobbying firm. “But to really get into the consciousness, it’s going to take a little more time.”



A steel mill in Farrell, Pa. The state received \$400 million from the I.R.A. to cut pollution from industrial facilities. Aaron Josefczyk/Reuters

A race to get money out

Most of the money in the Inflation Reduction Act flows through tax credits that are effectively uncapped for ten years. But both the law and the 2021 bipartisan infrastructure bill also authorized roughly \$182 billion in grants and spending for energy and climate programs over several years.

As the election approaches, the Biden administration has been trying to get as much of that money out the door as possible, making it harder for a future Trump administration to claw back spending.

In August, the Environmental Protection Agency announced \$4.3 billion in awards to states and local governments that had competed to devise ideas for reducing emissions. Utah won \$75 million for a plan to deploy electric vehicles in low-income areas and reduce leaks of methane, a potent greenhouse gas, from oil and gas operations. Pennsylvania won \$396 million to cut pollution from steel mills and other industrial facilities.

The E.P.A. is now racing to finalize those awards by year's end, so that the funding is fully obligated and can't easily be rescinded.

In mid-October, the Denver Regional Council of Governments finalized its \$200 million award from the agency to help cut emissions from buildings by switching from gas to electricity. "Getting that done was important," said Robert Spotts, a program manager at the council. "I wouldn't say the funds are invincible now, but it would take some pretty aggressive legislation to pull them back."

Other awards over the past year include \$6 billion to help cut carbon from heavy industries like steel and cement, \$7.6 billion to upgrade electric grids, and more than \$8 billion to help rural electric providers switch from burning coal and gas to cleaner alternatives like wind, solar and nuclear power.

All told, the White House estimates that more than \$98 billion of climate and clean energy grant awards in the Inflation Reduction Act have now been announced, or about 88 percent of funding available through the fiscal year that ended in September.

"The administration is working to implement the Investing in America agenda as quickly, effectively, responsibly, and equitably as possible, and has been since President Biden signed each bill into law," said Angelo Fernández Hernández, a White House spokesman.

That still leaves billions of dollars unspent, including funds to build new transmission lines and money for agricultural conservation. Many states still haven't finalized programs to use federal dollars to give consumers rebates for heat pumps and other efficient appliances.

If elected, Mr. Trump, who has railed against subsidies for electric cars, could try to scrap the law's \$7,500 tax credit for consumers to purchase E.V.s built in the United States. He could try to repeal a provision that charges oil and gas companies up to \$1,500 for every ton of methane that leaks from their systems. Or he could revise guidelines around certain energy tax credits, making them harder to obtain.

“They might not be able to kill the entire thing, but there’s a lot that could be changed,” said Kevin Book, managing director of ClearView Energy Partners, a Washington-based research firm. “And it doesn’t take a lot of uncertainty to quash investment.”

The Vineyard Wind Farm, off Massachusetts. Randi Baird for The New York Times

Climate goals in question

Analysts generally expect that America’s planet-warming emissions would be higher under Mr. Trump, who has also promised to increase oil and gas drilling, than under Ms. Harris. But figuring out the exact impact is difficult.

One recent analysis by BloombergNEF estimated that America’s wind, solar and battery capacity could triple over the next decade if the Inflation Reduction Act stayed in place and interest rates kept declining. But repealing the law could jeopardize about 17 percent of those expected projects, particularly wind power. Higher inflation or new trade disputes with other countries could further roil the industry.

Solar power and batteries have become cheap enough that installations would quite likely keep growing no matter what, although maybe at a slower pace, said Gregg Felton, chief executive of Altus, the largest owner of commercial-scale solar projects in the United States. “We have a business that is going to grow regardless,” he said. “The question is, how fast?”

The pace matters when it comes to climate change. The Biden administration has pledged to cut U.S. emissions 50 percent below 2005 levels by 2030 to help limit global warming to tolerable levels. Early analyses suggested that the Inflation Reduction Act could help achieve a 40 percent cut.

But the law could struggle to achieve its full potential, even in a Harris administration, without major reforms to reduce the yearslong waits that energy projects and transmission lines face in obtaining government permits.

“About half the emissions reductions in the bill depend on us being able to build solar, wind and transmission much faster than we’re doing today,” said Ryan Jones, a co-founder of Evolved Energy Research, an energy modeling firm. “A lot of things have to go right for that to happen.”

Brad Plumer is a Times reporter who covers technology and policy efforts to address global warming. More about Brad Plumer

A version of this article appears in print on , Section A, Page 25 of the New York edition with the headline: Election May Alter Arc of the Clean Energy Boom