How Technology-Neutral Tax Credits Unleash American Energy Dominance

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April 2025



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Beginning in 2025, the United States is introducing new technology-neutral tax credits aimed at promoting sustainable electricity generation. The two proposed credits replace the previous technology-specific Clean Electricity Investment Tax Credit (ITC) and Clean Electricity Production Tax Credit (PTC), which were available for projects starting construction prior to December 31st, 2024. Congress has already approved these tax credits through the Inflation Reduction Act of 2022. **The new policy, however, is created to be adaptable, allowing new zero-emission technologies to qualify without them being directly mentioned in the language.** The proposal seeks to implement both the ITC and PTC while giving businesses more flexibility in their tax credit plan as well as the technology they choose to use.

Section 48E Clean Electricity Investment Tax Credit

+ **Organizations receive a tax break based on how much is spent**
+ **Best for projects with high upfront costs**

This section offers a tax credit based on the investment in qualifying clean energy technology. Projects established on or after January 1st, 2025 are eligible. The tax credit is determined as a percentage of the organization's financial contributions to the operations of the technology.

Section 45Y Clean Electricity Production Tax Credit

+ **Credit based on how much clean energy is generated and sold**
+ **Best for projects that will generate a lot of power long-term**

Facilities that have zero greenhouse gas emissions and begin construction after December 31st, 2024 qualify for PTC. The credit is calculated per kilowatt-hour (kWh) of electricity produced and sold by the organization.



Shifts from Current System

Before the 48E and 45Y proposal, Section 48 and Section 45 were already in place. These policies are limited to specific technologies, such as solar power. They are also structured with sunset dates and expiration timelines. Additionally, the eligibility rules are subject to constant shifting due to a reliance on the project start day and year.

Old System	New System
Only for specific technology	Credits stay until 2032 or until GHG targets met
Developer choice not guaranteed	Any zero-emission technology
Tax credits phase out by year	Universal choice for all qualifying tech
Legislation required to add new eligible tech	Automatically eligible if tech is zero-emission



Benefits of the New Tech-Neutral Tax Credit Proposal

Market Competition

The new tech-neutral credits ensure that the playing field is leveled as they don't favor one energy source over another. Organizations are able to select a tax credit plan that works best for them, based on their energy production or financial investment. In this case, the market is able to decide which zero-emission technology succeeds, without the tax policy itself having any influence.

Business Friendly

Organizations are able to choose whether or not to participate, and credits are based on good building and production performance. There is no penalty for groups that do not participate or meet the requirements- businesses are not

being regulated outside of the tax credit incentive. The organizations can also choose whether to pursue the ITC or the PTC based on their own priorities and production models.

Public-Private Partnerships

This policy encourages private stakeholders to lead clean energy innovation without expanding federal oversight or ownership on any energy systems. Businesses are able to form their own clean energy solutions with assistance from the government but are not subjected to any additional regulations.

Energy Independence

This policy works towards the expansion of domestic clean energy sources, which include nuclear, hydropower, and carbon capture. The United States will not have to rely on foreign energy supply or the volatility of the global energy market. Organizations that implement technology created with American-made resources also receive a higher tax credit, which further encourages the use of domestic materials.

Job Creation and Investment in Red States

Rural and traditionally conservative areas would benefit the most from the proposed policy, in terms of economic gain. Red states such as Texas, Oklahoma, and Iowa are already the nation's leaders in clean energy production. Many rural areas are home to solar farms, which incentivize investment in these parts of the country- they would receive economical support without any direct subsidies.

Energy Technology Inclusivity

The new proposal does not specify a requirement for the type of energy production technology that needs to be used. Organizations can choose to invest in products that focus on nuclear, solar, hydropower, or any other method that generates energy with zero emissions. The policy is written to ensure that there are no additional restrictions that determine which projects qualify for the tax credit.





Highlighted Technologies & Constituencies Benefiting from Tech-Neutrality

Nuclear Energy

Nuclear energy has long been supported by conservative lawmakers as a reliable clean energy solution, as it's a viable baseload power that produces no emissions, and it moves the United States closer to energy independence. This industry benefits from the new tax credit proposal as small modular reactors (SMRs) and advanced reactors would automatically qualify for the credit if they do not produce any emissions. Red states such as Idaho and Wyoming would especially benefit.

The Idaho National Lab conducts SMR demonstrations, and TerraPower, located in Kemmerer, Wyoming, is building an advanced nuclear reactor. Both of these states have been transitioning from coal to nuclear-based clean energy.

Carbon Capture, Utilization, & Storage (CCUS)

CCUS supports the continued use of fossil fuels while significantly reducing emissions. This is seen as a way to decarbonize without federal regulation, as private companies are responsible for investing in infrastructure and driving their innovation efforts. Organizations that utilize this method benefit from the tax credits as power plants that use fossil fuels and CCUS qualify if net emissions are zero. On top of being eligible for the 45Y PTC, they also qualify for the 45Q carbon capture credit, which provides a double benefit.

Occidental Petroleum, which is based in Houston, Texas, is investing billions of dollars in direct carbon capture projects, and they would be able to take better advantage of the 48E credit. North Dakota is also currently developing CCUS infrastructure for ethanol and natural gas plants with assistance from conservative state legislators.

Blue and Green Hydrogen

Hydrogen offers a pathway to decarbonize while supporting domestic energy development. Green hydrogen is produced using renewable electricity to split water, while blue hydrogen is made from natural gas paired with carbon capture technology. Blue hydrogen, in particular, builds on existing fossil fuel infrastructure and supports the continued role of natural gas in the United States. Both forms of hydrogen are eligible for the 45Y production tax credit if they are zero-emission, and can also qualify for the 45V hydrogen production credit.

Texas was selected for a Department of Energy-funded hydrogen hub and is advancing both green and blue hydrogen development with strong backing from conservative state leadership. Louisiana and West Virginia, which are also hydrogen hub states, are working with private industry partners to develop pipelines and storage systems, allowing them to take advantage of the tech-neutral tax credits.

Advanced Geothermal

Advanced geothermal energy is a reliable, zero-emission power source that supports energy independence and rural economic growth. Unlike solar or wind, geothermal provides consistent baseload energy and can be developed using drilling techniques and expertise already present in oil and gas industries. With the implementation of 48E and 45Y, geothermal projects now automatically qualify for tax credits without needing specific legislative approval, making it easier for private companies to invest and innovate in this space.

Conservative lawmakers have shown increasing support for geothermal development. In Utah and Nevada, companies like Fervo Energy are using enhanced geothermal systems (EGS) to scale up clean electricity production. These developments offer new energy revenue streams to rural communities without expanding federal regulation, while fully benefiting from tech-neutral tax incentives.

Risks of Repeal

While some lawmakers have called for repealing portions of the Inflation Reduction Act, eliminating Sections 48E and 45Y could have significant unintended consequences, particularly for conservative-led states, energy producers, and rural communities that are already benefiting from these tax credits.

Job Growth and Investment

Many of the clean energy projects taking advantage of 48E and 45Y are located in Republican-led states such as Texas, North Dakota, and Wyoming. These projects are generating private investment, local tax revenue, and high-paying jobs in rural areas, without the need for new federal programs or subsidies. Repealing the credits would shut down new project development and result in companies investing in other areas.

American Energy Independence

These tech-neutral tax credits are encouraging the development of domestic energy sources like nuclear, hydrogen, and geothermal, which reduces dependence on foreign energy sources. Removing the credits would reverse progress on energy security, forcing the United States to import more energy.

Future Regulatory Risk

Without market-based incentives like 48E and 45Y, future lawmakers may consider regulatory mandates to drive clean energy growth. This would result in more government intervention and less industry flexibility. The current policy structure gives the private sector the lead role, and repealing it could bring forth more government regulation in the future.





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