A New Era of Climate Policy:
What Clean Energy Changes in the "One Big Beautiful Bill Act" (OBBBA) Mean for American Energy

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Republicans are not the party of climate denial. Instead, both parties have visions for a clean future.

The One Big Beautiful Bill Act (OBBBA) introduces drastic changes to the clean energy tax credits that were originally created under the Inflation Reduction Act (IRA). These new revisions encourage utility-scale energy development and domestic manufacturing while eliminating most consumer incentives.

The OBBBA marks a new era in energy policy. Republicans have fully embraced all of the above energy strategy. Republicans did not touch incentives for nuclear, geothermal, battery storage and other emerging technologies. Both parties have visions for a clean energy future, with Republicans more focused on baseload energy (such as geothermal and nuclear), domestic supply chains and national security concerns. Democrats prefer renewables (such as wind and solar) and consumer-focused incentives.

Republicans preserved key tax credits ensuring domestic manufacturing for clean energy technology, allowed emerging technologies a long timeline to gain access to credits and ensured business certainty for projects already in the pipeline. Republicans changed the clean energy credits to focus on baseload energy, while still giving business certainty on wind and solar.

As part of their vision of energy as a national security priority, Republicans focused on ensuring a domestic supply chain, and largely left untouched domestic manufacturing incentives such as the 45X Advanced Manufacturing credit. The changes ensure domestic manufacturing, energy dominance and an all-of-the-above grid. There is more to be done in a bipartisan manner to expand domestic energy production.

The table and discussion below summarizes the key policy changes enacted in the OBBBA.

Table:

Policy Area / Incentive	Description of Policy Change	Effective Date/Timeline	Tax / Fiscal Implications	Restrictions / Conditions
Clean Vehicle Credits (Sec. 25E/30D/45 W)	New & used EV purchase credits and commercial EV credit are phased out for vehicles acquired after Sept. 30, 2025.	Credit ends 9/30/2025.	Credit eliminated (100% cut to the EV rebate).	Standard vehicle eligibility rules remain; no new conditions.
EV Charging Infrastructur e (Sec. 30C)	EV refueling/charging property credit phased out for property placed in service after June 30, 2026.	Credit ends 6/30/2026.	Credit eliminated (no tax incentive for new chargers).	No special restrictions beyond original eligibility.
Residential Efficiency (Secs. 25C,45L)	Home energy improvement credit (25C) ends for property in service after 12/31/2025; new efficient home credit (45L) ends for homes acquired after 6/30/2026.	25C ends 12/31/2025; 45L ends 6/30/2026.	Credits removed.	No additional conditions beyond timeline.
Commercial Efficiency (Sec. 179D)	Energy-efficient commercial building deduction (179D) phased out for construction begun after June 30, 2026.	Phaseout after 6/30/2026.	No deduction for new projects beyond that date.	No new conditions beyond timeline.

Policy Area / Incentive	Description of Policy Change	Effective Date/Timeline	Tax / Fiscal Implications	Restrictions / Conditions
Residential Solar (Sec. 25D)	Home solar credit phased out for expenditures after 12/31/2025.	Credit ends 12/31/2025.	Credit eliminated (no rooftop solar credit).	Solar leases/PPAs remain eligible for ITC through 2027.
Utility-Scale Solar (ITC, Sec. 48E)	30% ITC extended only for projects beginning construction within 1 year of enactment (~mid-2026). Projects placed in service after 12/31/27 (without timely start) get no credit.	Construction must begin by ~7/2026; PIS by 12/31/2027 unless safe-harbored to ~2030.	Maintains 30% credit for qualifying projects; credit cut off after 2027.	Higher domestic-content thresholds apply from 6/16/2025; new PFE/material-assistance rules after 2025.
Wind (PTC, Sec. 45Y)	100% PTC extended only for projects beginning construction within 1 year of enactment; projects placed in service after 12/31/27 (without timely start) get no credit.	Construction by ~7/2026; PIS by 12/31/2027 or safe-harbored to ~2030.	Maintains 100% PTC for qualifying projects; eliminates it for late projects.	Domestic-content and PFE/material-assistance rules same as solar.
Battery Storage (ITC, Sec. 48E)	Energy storage projects continue to receive 30% ITC on the normal phase-down schedule (no accelerated cut-off in 2027).	No change (follows existing IRA phaseout after 2032).	30% credit maintained (75% in 2033, etc.).	Subject to same domestic-content/PFE rules as other tech.
Geothermal (ITC, Sec. 48E)	Geothermal projects receive 30% ITC under normal schedule (no special phase-out).	No change (follows existing schedule).	30% credit maintained (phases 2033–2036).	Subject to domestic-content/PFE rules.
Stationary Fuel Cells (ITC, Sec. 48)	Stationary fuel cell projects now qualify for 30% ITC (replacing the prior $/kW credit).	Enacted credit runs through 2033 phase-down.	Introduces/maintains 30% credit for fuel cells.	Subject to general ITC rules and new PFE restrictions.

Policy Area / Incentive	Description of Policy Change	Effective Date/Timeline	Tax / Fiscal Implications	Restrictions / Conditions
Hydrogen (PTC, Sec. 45V)	Clean hydrogen production PTC phases out for facilities beginning construction after 12/31/2027.	Credit cutoff after 12/31/2027.	No credit for new hydrogen projects starting after 2027.	Existing schedule for earlier projects unchanged.
Nuclear (PTC, Sec. 45U)	Zero-emission nuclear PTC remains unchanged (applies to certain existing plants, phasing out after 2032).	No change.	Maintains current PTC levels (100% for eligible plants).	Claimant cannot be PFE after 2025 or FIE after 2027.
Carbon Capture (Sec. 45Q)	45Q credit values unchanged for geologic storage; enhanced for EOR: point-source CCS/EOR credit raised to $85/ton, DAC/EOR to $180/ton.	No change in eligibility/claim period.	Credit rates unchanged for most uses; EOR credit increased.	Prohibits PFE/FIE from claiming 45Q (no material-assistance test).
Clean Fuels & Biofuels (Secs. 45Z, 40B)	45Z clean fuel credit extended through 2029 (vs. 2027); after 2025, only US/Mexico/Canada feedstocks qualify; SAF adder removed; Section 40B SAF credit extended Q1-Q3 2025.	Applies through 2029 (extension); new rules effective 2026.	Continues $/gal credit at base rates; ends SAF bonus.	Feedstock/location restrictions apply; small producer credits adjusted (e.g. ag-biodiesel credit to $0.20/gal through 2026).
Advanced Manufacturing (Secs. 45X & 48D)	45X: Credit for manufacturing clean-energy components. Wind components ineligible after 12/31/2027; integrated components require ≥65% US content (by cost) after 2026; critical minerals phase-out delayed to 2031. 48D: Equipment investment credit raised from 25% to 35%.	Wind component credit ends 12/31/2027; content rules from 1/1/2027; 48D rate increase effective immediately.	Credit rates unchanged for eligible items (wind dropped); 48D credit raised to 35%.	PFE restrictions apply; 45X stacking allowed only if content rules met.

Policy Area / Incentive	Description of Policy Change	Effective Date/Timeline	Tax / Fiscal Implications	Restrictions / Conditions
Foreign Entity Restrictions (All Credits)	Broad ban on "prohibited foreign entities" (PFE) claiming credits. Entities owned/controlled by China, Iran, N. Korea, etc., are disqualified; "material assistance" cost thresholds limit FEOC inputs.	PFE ban effective 2026; material-assistance limits phase in 2026–2029.	PFE/FIE cannot claim credits; projects with too much FEOC-sourced material fail qualification.	Detailed FEOC definition and cost-ratio tests apply (see [Exhibit 1 in source] for thresholds).
Domestic Content Requirements	Raised US-content thresholds for credits. 48E: higher domestic-content thresholds effective 6/16/2025. 45X: integrated components must be ≥65% US content (by cost) after 2026; battery modules definition expanded.	New thresholds from mid-2025 (48E) and 2027 (45X).	Only components meeting US-content tests qualify for full credit or stacking.	Applies to ITC and 45X credits; verified % of US-sourced materials required.
Depreciation (MACRS) Changes	Removes many energy assets from 5-year MACRS property (e.g. solar, wind, geothermal, fuel cells, storage). 100% bonus depreciation remains generally available.	Applies to property placed in service after enactment.	Energy assets now depreciate over longer life (general MACRS rules).	IRA-era 5-year designation removed (assets follow general IRS depreciation rules).

PTC: Companies receive a Production Tax Credit for every unit of energy they generate.

ITC: Companies receive an Investment Tax Credit to incentivize building new clean energy projects.

Residential and Utility-Scale Generation

Tax credits for both residential and utility-scale renewable energy projects were supported under the IRA. Section 25D allowed homeowners to claim a 30% tax credit for installing their own rooftop solar panels through 2032, with a gradual phase down beginning the following year. Section 48E provided a flat 30% ITC for utility-scale solar projects, with extra added bonuses for use of domestic labor and materials. Section 42Y granted a 100% PTC for wind energy projects that matched similar emission-free and domestic production conditions. Residential solar tax credits will be eliminated by the start of 2026, without any phase-down or alternative policy. Other utility solar and wind projects must begin construction prior to the anniversary of the OBBBA's passage and begin service by the end of 2027 to qualify for the credits. Projects are disqualified if they do not meet these deadlines, unless they are eligible for safe-harboring provisions.

The elimination of residential solar credits will likely cause rooftop solar panels to become less popular. Developers of large scale wind and solar projects are now faced with smaller construction requiring accelerated permitting and financing. Projects may be stalled beyond 2027 unless safe harboring policies are implemented. These changes move away from business-facing and consumer-facing incentives, but push for centralized generation and a domestic supply chain. It follows the America First agenda and focuses on American production rather than reliance on foreign energy sources.

Storage, Baseload, and Grid Stability

The IRA provided support for battery usage, geothermal energy, and zero-emission nuclear facilities to ensure reliability and smooth generation throughout the year. These technologies were eligible for a 30% ITC through 2023 with scheduled phase-downs in 2033. Nuclear plants could also receive PTCs through 2032, which would help them remain competitive in deregulated markets. Under OBBBA, the battery storage and geothermal credits are unchanged. All eligible projects will still retain access to the 30% ITC through 2032, followed by a phase-down. Nuclear energy credits are also maintained, through 45U, but they now include foreign entity restrictions. Prohibited foreign entities (PFEs) cannot claim credits after the end of 2025, and foreign-influenced entities (FIEs) are ineligible after 2027.

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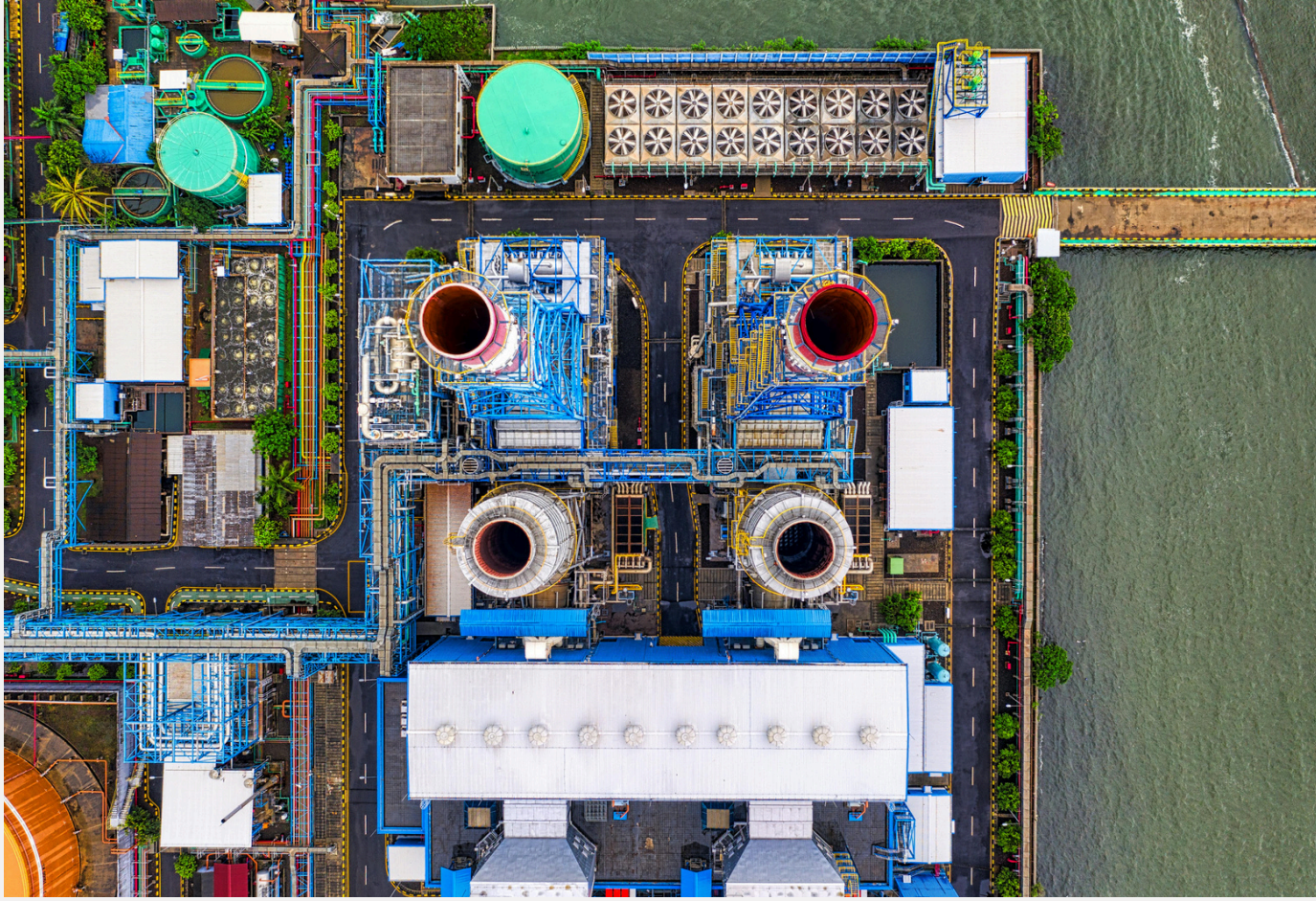
Energy Investments and American Innovation

Catalyzes investments in baseload energy technologies and provides new American innovation a runway.

These technologies have some policy stability under OBBBA, which is attractive for domestic clean-energy investors that are seeking newer long-term projects. Nuclear developers and operators must now factor in ownership and supply chain compliance to continue to qualify. Grid-scale storage and geothermal projects can also benefit from stability and consistent tax incentives, as others see cuts.



Emerging and Industrial Technologies

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Incentivitizes Made In America

Projects must meet made in America thresholds to qualify for subsidies.

Through the IRA, the development of emerging technologies such as hydrogen, carbon capture, and fuel cells were said to be accelerated. 45V provided up to $3/kg in PTCs for clean hydrogen that depends on carbon intensity. 45Q included $85/ton for point-source carbon capture as well as $180/ton for direct air capture (DAC) with enhanced oil recovery (EOR). Fuel cells previously received a specific credit depending on the amount of kilowatts produced, but were expected to move under a uniform ITC system. Under OBBBA, fuel cells now receive a simplified 30% ITC through 2033. Clean hydrogen credits end for projects beginning after 2027. The new 45Q has the same credit amounts as IRA, but now deems PFEs and FIEs ineligible for the tax credits. This way, foreign companies are not profiting off of American tax dollars.

Investments in industrial decarbonization need to accelerate to meet new eligibility deadlines. Hydrogen developers may load their projects with funding before 2027 to ensure that they kick off on time. While carbon capture remains well-funded, developers face more regulations due to foreign ownership rules. Fuel cell developers may find the ITC easier to navigate, but they may face challenges with kickstarting domestic production.

Clean Fuels and Domestic Manufacturing

A system that provided credits based on the amount of clean fuels produced was established under the IRA's 45Z. A similar policy was written for aviation fuels under 40B, with possible bonuses for carbon intensity and sourcing. The IRA also created the Advanced Manufacturing Credit under 45X to support domestic production of clean energy components, as well as a 25% ITC for clean technology manufacturing facilities through 48D. With the OBBBA, section 45Z is extended through 2029, but eligibility is only open to sources from the United States, Mexico, or Canada. The sustainable aviation fuel (SAF) bonus is removed, but the overall credit is extended through September 2025. After 2027, wind component support is eliminated, and integrated components must meet a threshold of 65% American content starting that same year. The 48D credit is increased from 25% to 35% effective immediately. Investors who contribute to clean technology projects benefit from this change. Additionally, it encourages wind technology manufacturers to use a larger percentage of American-made components.

Manufacturers that meet strict domestic content standards can benefit from increased incentives, but many projects may face disqualification due to sourcing issues. The feedstock restrictions will shape supply chains in the biofuel and SAF sectors. Smaller producers will need to adapt quickly to remain eligible under the new regional sourcing rules.

Ownership, Compliance, and Depreciation Rules

Clean energy assets were allowed to depreciate under the five year MACRS treatment under the IRA. This subjected them to standard, longer depreciation schedules. It also implemented a ban on PFEs beginning in 2026, and included materials assistance through 2026. Projects that receive a significant portion of components or funding from PFEs may be disqualified from claiming any credit. Investors and developers will need to assess foreign ownership and supply chain exposure much more carefully. The depreciation change reduces near-term financial advantages for projects, potentially complicating project finance. Compliance costs and legal review are expected to rise across all sectors.

Policy Risks and Uncertainties

Foreign entity compliance: The OBBBA prohibits PFEs from accessing most credits, starting in 2026. It also introduces material assistance guidance through 2029. However, enforcement and ownership definitions as well as cost-ratio formulas have not been fully clarified. Projects that involve global supply chains may face delays or disqualification based on evolving interpretations of the bill. Also, the removal of 5-year MACRS for clean energy property stretches out the tax benefit period for major capital investments. Without accelerated depreciation, developers may face higher upfront financing costs and lower short-term returns.

Compressed deadlines: Utility-scale projects must begin construction by mid-2026 and be placed in service by the end of 2027 to qualify for many credits. These timelines may conflict with permitting, interconnection, or labor availability constraints, particularly for solar and wind projects.

Sector-specific changes: Emerging technologies like hydrogen and fuel cells now face firm expiration dates, which may cause market distortions, overallocation of funding, or midstream cancellations if project approvals lag. While the OBBBA references eligibility for projects that qualify for safe harbor, the application of this rule after 2027 remains uncertain. Uneven interpretation could result in inconsistent credit access among similar projects.

Opportunities for Stakeholders

Project developers and manufacturers: Developers with prepared wind, solar, and battery projects can benefit by launching construction prior to mid-2026 to secure full credit eligibility. Projects with strong labor compliance, American sourced materials, and efficient permitting may see favorable outcomes. The increase of the Section 48D investment credit from 25% to 35% and the continuation of Section 45X creates financial upside for domestic manufacturers of clean energy components. Entities that meet the new 65% U.S. content rule (by cost) will be positioned to maximize stacked credit claims. The extension of the clean fuels credit (45Z) through 2029 and the availability of high-value credits for hydrogen (45V) and DAC (45Q) favor early movers. Developers that can lock in construction before key 2027 deadlines may secure multi-year subsidies before expiration.

State and local governments: With the elimination of federal consumer-facing incentives (EV credits, rooftop solar, home energy upgrades), some agencies may choose to expand or create their own incentive programs to fill the gap and maintain momentum on clean energy adoption.

Consumers: Although most direct federal incentives for individuals have been phased out, consumers may still benefit indirectly from state-level programs, utility rebates, or community solar initiatives. High income or early-adopting consumers who act before the deadlines may still take advantage of existing credits for EVs, home solar, or energy efficiency. In the longer term, consumers may benefit from grid level improvements and increased energy reliability resulting from utility-scale deployment supported by remaining OBBBA credits.

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