

“One Big Beautiful Bill” Enacted: Impact on Clean Energy Incentives

On July 4, 2025, President Trump signed into law the budget reconciliation legislation (H.R. 1), commonly referred to as the “One Big Beautiful Bill” (the “Act”), with sweeping tax and policy changes for the clean energy industry. This development follows the House of Representatives’ passage of the initial bill on May 22, 2025 (the “House Bill”), the Senate’s passage of its modified version on July 1, 2025 (the “Senate Bill”), and the House’s approval of the Senate’s version on July 3, 2025, by a vote of 218-214. The Act significantly curtails the availability of the clean energy tax credits established by the Inflation Reduction Act of 2022 (the “IRA”) and eliminates funding for several federal grant and loan programs under the IRA that support clean energy projects, although it is not as restrictive as the proposed provisions in the House Bill (see our previous memo on the House Bill [here](#)). Notably, the Act accelerates the termination of certain clean energy credits, including those in relation to solar, wind and clean hydrogen, and introduces a foreign entities of concern restrictions framework that had been introduced under the House Bill.

KEY CHANGES TO CLEAN ENERGY TAX CREDITS

This memo sets forth a summary of some of the key amendments to the IRA clean energy tax credits contained in the Act. Please refer to the table at the end of this memo for a detailed comparison of the provisions relating to the IRA clean energy tax credits under the IRA prior to passing the Act (the “Existing Law”), the House Bill and the Act as they relate to termination, transferability and FEOC Restrictions (as defined below).

Termination of Credits

The Act accelerates the termination of many clean energy tax credits established under the IRA, either by way of a firm cut-off date or a gradual phase-out

of the credits over a span of several years. Under the Act, the termination and phase-out of clean energy tax credits are subject to the following modifications:

- Technology-Neutral Clean Electricity Investment Tax Credits (“ITC”) —Section 48E; Clean Electricity Production Tax Credits (“PTC”) —Section 45Y:

The Act accelerates the termination of the technology-neutral clean electricity ITC and PTC for wind and solar facilities. The credits will be unavailable for wind and solar facilities that begin construction more than 12 months after enactment and are placed in service after December 31, 2027.

The clean electricity ITC and PTC, for facilities *other than* wind and solar (e.g., hydropower, nuclear, geothermal and energy storage) remain intact and will begin phasing out where construction begins after December 31, 2033, but without any extension tied to meeting certain carbon emission reduction targets, as provided under Existing Law. Credits for energy storage facilities co-located on site with wind or solar facilities are exempt from the termination of credits for the co-located wind or solar facility.

The House Bill had proposed a more extensive acceleration of termination, requiring projects to begin construction within 60 days of enactment and be placed in service by December 31, 2028, in order to qualify for the credits, except for advanced nuclear facilities, which were required to begin construction by December 31, 2028.

- Advanced Manufacturing Production Tax Credit —Section 45X:

The Act retains the same phase-out structure for advanced manufacturing PTC as under Existing Law (*i.e.*, phase-out commencing in 2030 and completely phased-out by 2033), except with respect to wind energy components and critical minerals. For wind components, the credits will terminate for wind components produced and sold after December 31, 2027. For critical minerals, the phase-out of the credits will begin in 2031, with a complete phase-out by 2034, except in the case of credits for metallurgical coal, which will terminate for metallurgical coal produced after December 31, 2029.

The House Bill had also proposed terminating the credit for wind components produced and sold after December 31, 2027, but would have accelerated the termination of all other Section 45X tax credits by an additional year by phasing out the credits by 2032.

- Clean Hydrogen Production Tax Credit —Section 45V: The Act terminates the clean hydrogen PTC for facilities that begin construction after December 31, 2027. This is less restrictive than the House Bill, which had proposed terminating the credit for facilities that begin construction after December 31, 2025.

- Clean Fuel Production Tax Credit —Section 45Z: The Act preserves and extends the clean fuel PTC by an additional two years to December 31, 2029. In contrast, the House Bill had proposed to extend the credit by a further two years to December 31, 2031.
- Advanced Energy Project Investment Tax Credit —Section 48C: Under Existing Law, any taxpayers that receive an advanced energy project investment credit must place the project into service within four years. Under the Act, any revoked credit allocation amounts for failure to meet the placed-in-service date will not be reallocated to a different recipient.

The termination dates under the Act for other clean energy tax credits, including the Section 45U zero-emission nuclear power PTC and the Section 45Q carbon oxide sequestration credit, remain unchanged from Existing Law.

Foreign Entity of Concern Restrictions

The Act includes a complex framework regarding foreign entities of concern (“FEOC”), which would preclude certain taxpayers from being able to claim clean energy tax credits. These FEOC restrictions were initially introduced under the House Bill, but the relevant definitions, classification criteria and the timing of effectiveness of the provisions were modified under the Senate Bill and adopted in the Act.

The FEOC restrictions generally fall into the following three categories (collectively, the “FEOC Restrictions”):

- Restrictions on Specified Foreign Entities: A taxpayer is restricted from claiming credits where it is a “specified foreign entity” (a “SFE Restriction”). Specified foreign entities include designated foreign terrorist organizations, Chinese military companies operating in the U.S., entities on the Uyghur Forced Labor Prevention Act Entity List, certain Chinese battery and energy storage manufacturers and foreign-controlled entities.

The Act expands the original House Bill definition of “foreign-controlled entities” to include sub-national governments of covered nations and their respective agencies and instrumentalities.

The SFE Restriction applies to Section 48E, 45Y, 45X, 45Q, 45U and 45Z credits for any taxable year after enactment.

- Restrictions on Foreign-Influenced Entities: A taxpayer is restricted from claiming credits where it is a foreign-influenced entity (an “FIE Restriction”). Foreign-influenced entities include any entity over which a specified foreign entity has significant influence, such as appointing certain officers or holding an ownership stake or debt interest or payments made pursuant to an agreement that entitles the specified foreign entity to exercise effective control over a qualified facility or an energy storage technology.

The Act differs from the House Bill in that it increases both the applicable ownership percentage threshold and the applicable debt percentage threshold required to be held by a specified foreign entity in order to be classified as a foreign-influenced entity. In addition, the Act also modifies the payment-related triggers to apply only where such payment is made pursuant to an agreement that entitles the specified foreign entity to exercise “effective control” over a qualified facility or an energy storage technology, although this “effective control” test does not apply for Sections 45Q, 45U and 45Z.

The FIE Restriction applies to (i) Section 48E, 45Y, 45X and 45Q credits for any taxable year after enactment and (ii) Section 45U and 45Z credits for any taxable year beginning two years after enactment.

- Restrictions on Receiving Material Assistance from Prohibited Foreign Entities: Taxpayers are restricted from receiving material assistance from a “prohibited foreign entity”, which is defined as either a specified foreign entity or a foreign-influenced entity (a “Material Assistance Restriction”). The Material Assistance Restriction applies to Section 48E, 45Y and 45X credits and denies credits for projects that are facilitated by material assistance from, or components that are produced under a licensing agreement with, a prohibited foreign entity.

The Act adopts a cost ratio framework (similar to the existing domestic content bonus test), which would disallow credits if the portion of manufactured products and critical minerals acquired from prohibited foreign entities exceeds a threshold ratio. The applicable ratio would depend on the type of technology or component and would reduce over time. This is less restrictive than the House Bill, which had proposed denying credits if any component, subcomponent or critical mineral directly or indirectly produced by a prohibited foreign entity was used to construct the qualified facility.

The Material Assistance Restriction applies to (i) Section 48E and 45Y credits for qualified facilities or energy storage technology that begin construction after December 31, 2025, and (ii) Section 45X credits for eligible components produced and sold in any taxable year after enactment.

The Act also introduces a ten-year recapture period applicable to any clean electricity ITC claimed under Section 48E if the taxpayer makes a payment to a specified foreign entity pursuant to an agreement entitling that entity to exercise effective control over such qualified facility or energy storage technology owned by the taxpayer.

Transferability

Unlike the House Bill, which had proposed sweeping repeals and accelerated termination of transferability of tax credits to third parties, the Act retains the ability for taxpayers to transfer clean energy tax credits to unrelated third parties; provided that such transfer is not made to a specified foreign entity.

Other Notable Changes

The Act includes other amendments to the clean energy tax credits, including but not limited, to the following:

- Increased Domestic Content Requirement for Section 48E: The domestic content requirement under the Section 48E clean electricity ITC is amended by increasing the percentage of domestic content required to qualify for the domestic content adder for facilities that began construction after June 16, 2025. This change aligns the domestic content requirement under the Section 48E clean electricity ITC with the

existing rules that apply to the Section 45Y clean electricity PTC.

- Inclusion of Metallurgical Coal as a Critical Mineral: The Act adds metallurgical coal to the list of critical minerals for which Section 45X credits can be claimed, allowing taxpayers to claim a credit equal to 2.5 percent of the cost of production during the period from 2026 to 2029, even if such coal is produced outside of the United States.
- Energy Community Bonus Credit for Advanced Nuclear Facilities: The Act expands the definition of “advanced nuclear facility” to include facilities that have received a construction permit or combined operating license from the Nuclear Regulatory Commission and to extend the 10 percent energy community bonus credit to include areas with significant employment related to nuclear energy.
- Parity Credit for Qualified Carbon Oxide Sequestration: The Act amends the carbon oxide sequestration credit rate for qualified facilities or equipment in taxable years beginning after 2024 by increasing the credit value to \$17 (subject to indexation for inflation commencing in 2027) and \$36 in the case of direct air capture.
- Modification of Sale of Integrated Components: For the purposes of the Section 45X advanced manufacturing credit, the Act allows integrated components to be treated as an eligible component being sold to an unrelated person if (i) the integrated component was produced and integrated into another eligible component in the same manufacturing facility, (ii) the final eligible component is sold to an unrelated person and (iii) at least 65 percent of the direct material costs of the final eligible component are attributable to primary components which are mined, produced or manufactured in the United States. This change will apply to components sold during taxable years beginning after December 31, 2026.
- Clean Fuel Production Tax Credit Parity for Sustainable Aviation Fuel (“SAF”): Among other changes to the clean fuel PTC, the Act eliminates the higher credit rate applicable to SAF and creates parity with the credit rate of non-SAF transportation fuels for SAF produced after December 31, 2025.

- Repeal of Special Five-Year Cost Recovery Period: The Act terminates the special five-year cost recovery period for depreciation applicable to energy property under Section 48(a)(3)(A) (including wind, solar, geothermal, energy storage, etc.). This change will become effective for projects that begin construction after December 31, 2024. Property under Sections 48E and 45Y continues to be eligible for the five-year cost recovery period.

KEY CHANGES TO CLEAN ENERGY GRANT AND LOAN PROGRAMS

The Act rescinds unobligated funds from various sections of the IRA and, in some cases, repeals the underlying IRA provision. This puts an end to several major federal grant and loan programs relating to clean energy and the reduction of carbon emissions, including the Greenhouse Gas Reduction Fund and the programs under the Department of Energy Loan Programs Office.

CONCLUSION

The Act represents a significant shift in federal clean energy policy, accelerating the termination of key tax credits for solar and wind projects while introducing complex foreign entity restrictions that will reshape how clean energy investments are structured and financed. While the Act preserves some incentives—including credit transferability and extended timelines for non-solar/wind technologies—it fundamentally alters the landscape established by the IRA. The clean energy sector will need to adapt to the operational and financial challenges they now face from the combination of truncated development timelines, complex compliance requirements and eliminated federal grant programs.

SUMMARY OF CHANGES TO CLEAN ENERGY TAX CREDITS UNDER THE IRA

The table below sets out a high-level summary of the termination, transferability and FEOC Restriction provisions for each of the above-mentioned clean energy tax credits under Existing Law, the House Bill and the Act.

TAX CREDIT	EXISTING LAW	HOUSE BILL	THE ACT
Section 48E Clean Electricity Investment Credit	Phase-out: Phase-out is as follows, but can be extended if the emissions reduction target not met: <ul style="list-style-type: none"> • Begin construction in 2033: 100% • Begin construction in 2034: 75% • Begin construction in 2035: 50% • Begin construction after 2035: 0% 	Termination: Terminated except for (i) projects beginning construction within 60 days of enactment or placed in service by end of 2028 and (ii) advanced nuclear facilities beginning construction before the end of 2028 (no placed-in-service limitation)	Termination: For qualified wind and solar facilities, the credit is terminated for facilities that begin construction more than 12 months after enactment and are placed in service after 2027 Phase-out: For all other qualified facilities (hydropower, geothermal and nuclear) and energy storage technology, the amount of credit is as follows: <ul style="list-style-type: none"> • Begin construction in 2033: 100% • Begin construction in 2034: 75% • Begin construction in 2035: 50% • Begin construction in 2036: 0%
	Transferability: No end date	Transferability: Repealed for projects not beginning construction within two years of enactment	Transferability: Available through life of credit, but no transfers to specified foreign entities
	FEOC Restrictions: None	FEOC Restrictions: <ul style="list-style-type: none"> • SFE Restriction for any taxable year after enactment • FIE Restriction for any taxable year two years after enactment • Material Assistance Restriction for any taxable year after enactment 	FEOC Restrictions: <ul style="list-style-type: none"> • SFE Restriction for any taxable year after enactment • FIE Restriction for any taxable year after enactment • Material Assistance Restriction for facilities that begin construction after December 31, 2025

Section 45Y Clean Electricity Production Credit	<p>Phase-out: Phase-out is as follows, but can be extended if the emissions reduction target not met:</p> <ul style="list-style-type: none"> • Begin construction in 2033: 100% • Begin construction in 2034: 75% • Begin construction in 2035: 50% • Begin construction after 2035: 0% 	<p>Termination: Terminated except for (i) projects beginning construction within 60 days of enactment or placed in service by end of 2028 and (ii) advanced nuclear facilities beginning construction before the end of 2028 (no placed-in-service limitation)</p>	<p>Termination: For qualified wind and solar facilities, the credit is terminated for facilities that begin construction more than 12 months after enactment and are placed in service after 2027</p> <p>Phase-out: For all other qualified facilities that generate electricity (hydropower, geothermal and nuclear), the phase-out is as follows:</p> <ul style="list-style-type: none"> • Begin construction in 2033: 100% • Begin construction in 2034: 75% • Begin construction in 2035: 50% • Begin construction after 2035: 0%
	<p>Transferability: No end date</p>	<p>Transferability: Repealed for projects not beginning construction within two years of enactment</p>	<p>Transferability: Available through life of credit, but no transfers to specified foreign entities</p>
	<p>FEOC Restrictions: None</p>	<p>FEOC Restrictions:</p> <ul style="list-style-type: none"> • SFE Restriction for any taxable year after enactment • FIE Restriction for any taxable year two years after enactment • Material Assistance Restriction for any taxable year after enactment 	<p>FEOC Restrictions:</p> <ul style="list-style-type: none"> • SFE Restriction for any taxable year after enactment • FIE Restriction for any taxable year after enactment • Material Assistance Restriction for facilities that begin construction after December 31, 2025

Section 45X Advanced Manufacturing Production Credit	<p>Phase-out: For certain advanced manufacturing components (inverters, solar, wind and battery components and critical minerals), the phase-out is as follows:</p> <ul style="list-style-type: none"> • Components sold in 2030: 75% • Components sold in 2031: 50% • Components sold in 2032: 25% • Components sold after 2032: 0% <p>The phase-out does not apply to the production of critical minerals.</p>	<p>Termination: For wind energy components, terminated at the end of 2027</p> <p>Phase-Out: For other components, the phase-out is as follows:</p> <ul style="list-style-type: none"> • Components sold in 2030: 75% • Components sold in 2031: 50% • Components sold after 2031: 0% 	<p>Termination: For wind energy components, terminated at the end of 2027</p> <p>For metallurgical coal used in steelmaking, terminated at the end of 2029</p> <p>Phase-Out: For critical minerals (other than metallurgical coal), the phase-out is as follows:</p> <ul style="list-style-type: none"> • Mineral produced in 2031: 75% • Mineral produced in 2032: 50% • Mineral produced in 2033: 25% • Mineral produced after 2033: 0% <p>For components other than wind energy components, critical minerals and metallurgical coal, the phase-out is as follows:</p> <ul style="list-style-type: none"> • Components sold in 2030: 75% • Components sold in 2031: 50% • Components sold in 2032: 25% • Components sold after 2032: 0%
	Transferability: No end date	Transferability: Transferability repealed for components sold after 2027	Transferability: Available through life of credit, but no transfers to specified foreign entities
	FEOC Restrictions: None	<p>FEOC Restrictions:</p> <ul style="list-style-type: none"> • SFE Restriction for any taxable year after enactment • FIE Restriction for any taxable year two years after enactment • Material Assistance Restriction for any taxable year two years after enactment 	<p>FEOC Restrictions:</p> <ul style="list-style-type: none"> • SFE Restriction for any taxable year after enactment • FIE Restriction for any taxable year after enactment • Material Assistance Restriction for any taxable year after enactment
Section 45Q Carbon Oxide	Termination: Terminated for projects beginning construction after the end of 2032	No change from Existing Law	No change from Existing Law

Sequestration Credit	Transferability: No end date	Transferability: Repealed for projects not beginning construction within two years of enactment	Transferability: Available through life of credit, but no transfers to specified foreign entities
	FEOC Restrictions: None	FEOC Restrictions: <ul style="list-style-type: none"> SFE Restriction for any taxable year after enactment FIE Restriction for any taxable year after enactment 	FEOC Restrictions: <ul style="list-style-type: none"> SFE Restriction for any taxable year after enactment FIE Restriction for any taxable year after enactment
Section 45U Zero-Emission Nuclear Power Production Credit	Termination: Terminated for electricity produced and sold after the end of 2032	Termination: Terminated for electricity produced and sold after the end of 2031	No change from Existing Law
	Transferability: No end date	Transferability: Repealed for electricity produced and sold after the end of 2027	Transferability: Available through life of credit, but no transfers to specified foreign entities
	FEOC Restrictions: None	FEOC Restrictions: <ul style="list-style-type: none"> SFE Restriction for any taxable year after enactment FIE Restriction for any taxable year two years after enactment 	FEOC Restrictions: <ul style="list-style-type: none"> SFE Restriction for any taxable year after enactment FIE Restriction for any taxable year two years after enactment

Section 45Z Clean Fuel Production Credit	Termination: Terminated for fuel sold after the end of 2027	Termination: Terminated for fuel sold after the end of 2031	Termination: Terminated for fuel sold after the end of 2029
	Transferability: No end date	Transferability: Repealed for fuel produced after the end of 2027	Transferability: Available through life of credit, but no transfers to specified foreign entities
	FEOC Restrictions: None	FEOC Restrictions: <ul style="list-style-type: none"> • SFE Restriction for any taxable year after enactment • FIE Restriction for any taxable year two years after enactment 	FEOC Restrictions: <ul style="list-style-type: none"> • SFE Restriction for any taxable year after enactment • FIE Restriction for any taxable year two years after enactment
Section 45V Clean Hydrogen Production Credit	Termination: Terminated for facilities beginning construction after the end of 2032	Termination: Terminated for facilities beginning construction after the end of 2025	Termination: Terminated for facilities beginning construction after the end of 2027
	Transferability: No end date	Transferability: Repealed after end of the year of enactment	No change from Existing Law
	FEOC Restrictions: None	No change from Existing Law	No change from Existing Law

Section 48(a) Investment Tax Credit for Energy Property	<p>Termination: Terminated for property described in Section 48(a)(2)(i) by the end of 2024, except for geothermal heat pumps</p> <p>Phase-out: For geothermal heat pumps, the phase-out of credit value is as follows:</p> <ul style="list-style-type: none"> • Begin construction before 2033: 6% • Begin construction in 2033: 5.2% • Begin construction in 2034: 4.4% • Begin construction after 2034: 0% 	<p>Phase-out: For geothermal heat pumps, the phase-out of credit value is as follows:</p> <ul style="list-style-type: none"> • Begin construction before 2030: 6% • Begin construction in 2030: 5.2% • Begin construction in 2031: 4.4% • Begin construction after 2031: 0% <p>No other changes from Existing Law</p>	<p>Termination: Terminated for certain energy property described in Section 48(a)(2)(ii) for the taxable year after enactment</p> <p>No other changes from Existing Law</p>
	Transferability: No end date	Transferability: Repealed for geothermal heat pumps not beginning construction within two years of enactment	No change from Existing Law
	FEOC Restrictions: None	<p>FEOC Restrictions:</p> <ul style="list-style-type: none"> • SFE Restriction for any taxable year after enactment • FIE Restriction for any taxable year after enactment 	No change from Existing Law

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