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SUMMARY

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January 16, 2025

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The Inflation Reduction Act of 2022 (IRA; P.L. 117-169) modified or enacted four tax credits for the generation of electricity from renewable or "clean" sources. The modified tax credits—the energy investment tax credit (ITC) and the production tax credit (PTC)—provide tax credits for *investing in* or *producing electricity from* renewable-energy facilities that began construction before 2025. The newly enacted tax credits—the clean electricity investment tax credit (CEITC) and the clean electricity production tax credit (CEPTC)—provide tax credits for investing in or producing electricity from energy facilities with zero greenhouse gas emissions that begin supplying electricity in 2025 or later years.

For each of the four credits, the IRA allows taxpayers meeting *domestic content requirements* to receive bonus credits. These bonus credits increase the value of the ITC and the CEITC by one-third, and increase the value of the PTC and the CEPTC by one-tenth. To meet the domestic content requirements, 100% of the structural steel, 100% of the structural iron, and certain percentages (varying by the type of credit and the year the facility begins construction) of manufactured products in the energy facility's construction must be manufactured in the United States.

For the ITC, the PTC, and the CEPTC, the IRA mandates that *direct payment recipients* that begin construction on energy facilities in 2026 or later must meet the domestic content requirements established for the bonus credits. For the CEITC, direct payment recipients must meet the domestic content requirements established under the CEPTC bonus credit. *Direct payments* are cash payments made to untaxed entities that are of equivalent value to nonrefundable income tax credits. Because rural electric cooperatives and publicly owned utilities account for a nontrivial share of domestic energy supply, the domestic content requirements for direct payment recipients may have repercussions for domestic electricity prices, the electric equipment supply chains, and the deployment of "clean" energy. However, the IRA provides exceptions to the domestic content requirements for direct payment recipients, including exceptions for the high prices or nonavailability of domestically produced steel, iron, and manufactured products.

The Internal Revenue Service (IRS) has published various guidance documents and notices that pertain to the domestic content requirements. These include guidance documents establishing how domestic content percentages for manufactured products are to be calculated. In November 2024, shortly before the CEITC and the CEPTC were to take effect, the IRS issued a pair of notices exempting direct payment recipients from the domestic content requirement if they testify in writing that they qualify for the exceptions. These regulations apply to facilities that begin construction before 2027.

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The Inflation Reduction Act of 2022 (IRA; P.L. 117-169) modified or enacted four tax credits for the provision of "clean" or renewable electricity. Specifically, the IRA enacted the clean electricity investment tax credit (CEITC) and the clean electricity production tax credit (CEPTC), both of which go into effect in 2025; the law also modified the energy investment tax credit (ITC) and the production tax credit (PTC), and extended eligibility for those credits through the end of 2024.[1] This report describes the four credits, their associated bonus credits, and the IRA's new direct payments mechanism, then explains how domestic content requirements affect eligibility for bonus credits and direct payments.

Background: The Investment and Production Tax Credits

Before the IRA was enacted, two federal tax credits subsidized the generation of electricity from renewable sources: the energy investment tax credit and the production tax credit.[2] To distinguish among the four credits mentioned above, this report refers to the original credits as the *renewable-energy ITC* and the *renewable-energy PTC*, and refers to the newly enacted credits as the *technology-neutral ITC* and the *technology-neutral PTC*.

Prior to IRA's passage, the renewable-energy ITC provided a tax credit equal to 10%-30% of capital investments in renewable-energy facilities, with the credit generally scheduled to expire between 2019 and 2025; credit rates and expiration dates differed by energy source.[3] The IRA increased the credit rate to 30% for all qualifying energy sources (with a rate of 6% for facilities not meeting prevailing wage and registered apprenticeship requirements during the facility's construction phase), made energy storage eligible for the credit, and made facilities eligible if they began construction before the end of 2024.[4] (Geothermal heat pumps remain eligible for the renewable-energy ITC through the end of 2034.)[5]

The IRA also modified the renewable-energy PTC. Before IRA enactment, the renewable-energy PTC provided credits of either 2.5 cents or 1.3 cents (in 2021 dollars) per kilowatt-hour of electricity produced using qualifying renewable energy sources.[6] Firms were allowed to claim the PTC for 10 years starting with the year the facility was placed in service (i.e., the year the facility began supplying electricity).[7] The IRA made certain energy sources (qualifying hydropower and

[1] The Internal Revenue Code also includes two tax credits for electricity produced from nuclear energy facilities and a tax credit for the capture and sequestration of carbon oxides. See CRS Report R46865, *Energy Tax Provisions: Overview and Budgetary Cost*, by Nicholas E. Buffie and Donald J. Marples and CRS In Focus IF11455, *The Section 45Q Tax Credit for Carbon Sequestration*, by Angela C. Jones and Donald J. Marples. The tax credit for carbon oxide sequestration is not claimed exclusively for electricity generation, but may be used for that purpose.

[2] The energy investment tax credit is often referred to as the ITC rather than the EITC to avoid confusion with the earned income tax credit. The ITC is sometimes referred to as "the investment tax credit" or "the energy credit."

[3] CRS In Focus IF10479, *The Energy Credit or Energy Investment Tax Credit (ITC)*, by Molly F. Sherlock. Congressional offices may contact Nicholas Buffie for further information.

[4] CRS Report R47202, *Tax Provisions in the Inflation Reduction Act of 2022 (H.R. 5376)*, coordinated by Molly F. Sherlock. Before the passage of the IRA, the 30% tax credit for offshore wind facilities was scheduled to expire at the end of 2025, and there were permanent 10% tax credits for solar facilities and geothermal energy facilities. These provisions were also replaced by 30% credits for facilities that began construction before 2025. Congressional offices may contact Nicholas Buffie for further information.

[5] 26 U.S.C. §48(a)(7).

[6] CRS Report R47202, *Tax Provisions in the Inflation Reduction Act of 2022 (H.R. 5376)*, coordinated by Molly F. Sherlock. Congressional offices may contact Nicholas Buffie for further information.

[7] 26 U.S.C. §45(a)(2)(A)(ii).

marine and hydrokinetic energy) eligible for the 2.5-cent amount for the first time, and also lowered credit amounts for taxpayers not meeting prevailing wage and registered apprenticeship requirements.[8] The renewable-energy PTC previously applied to facilities that began construction in 2021 or earlier, but the IRA extended that deadline through the end of 2024.[9] Firms are still allowed to receive the renewable-energy PTC for 10 years beginning with the date their facilities are placed in service.[10]

The IRA enacted the technology-neutral ITC and the technology-neutral PTC for facilities that are placed in service after 2024 and begin construction before 2033, with the potential for an extended timeframe if certain emissions reductions targets are not met.[11] The technology-neutral ITC and technology-neutral PTC are similar to their renewable-energy counterparts: the technology-neutral ITC gives electric facility owners a tax credit equal to 30% of their capital investment costs (with a rate of 6% for facilities not meeting prevailing wage and registered apprenticeship requirements), and the technology-neutral PTC gives such owners a tax credit of 2.5 cents (in 2021 dollars) per kilowatt-hour of electricity production (with lower amounts for facility owners not meeting prevailing wage and registered apprenticeship requirements).[12] The technology-neutral PTC, like the renewable-energy PTC, provides a 10-year stream of credits that starts with the year a facility begins producing electricity.[13]

While the renewable-energy ITC and PTC subsidize electricity from specific technologies, such as wind power and solar energy, the technology-neutral credits subsidize all electricity facilities that operate with zero greenhouse gas emissions.[14] The technology-neutral credits may still be claimed by owners of renewable-energy facilities, but the credits also (1) apply to nonrenewable zero-emissions sources, such as nuclear power; (2) provide the same tax benefits regardless of zero-emissions energy source; and (3) allow zero-emissions technologies discovered in the future to automatically qualify for the credits without an act of Congress.

A facility used to claim one of the four credits (at any time) cannot be used to claim a different ITC or PTC.[15] For example, a facility used to claim a renewable-energy ITC in 2023 may not be used to claim a technology-neutral PTC in 2026. Facilities that began construction before 2025

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[8] CRS Report R47202, *Tax Provisions in the Inflation Reduction Act of 2022 (H.R. 5376)*, coordinated by Molly F. Sherlock. Congressional offices may contact Nicholas Buffie for further information.

[9] CRS Report R47202, *Tax Provisions in the Inflation Reduction Act of 2022 (H.R. 5376)*.

[10] 26 U.S.C. §45(a)(2)(A)(ii).

[11] New eligibility for full credits is maintained through an "applicable year," which is the later of either 2032 or the year in which greenhouse gas emissions from the domestic electricity sector are less than or equal to 25% of the sector's emissions from 2022. See 26 U.S.C. §45Y(d)(3) and 26 U.S.C. §48E(e)(3). Credit eligibility is then subject to a phaseout. As part of the phaseout, facilities that begin construction during the calendar year after the applicable year may receive 100% of the full credit amount; facilities that begin construction two calendar years later may receive 75% of the full amount; and facilities that begin construction three calendar years later may receive 50% of the full amount. No taxpayers may become newly eligible for the credits thereafter. See 26 U.S.C. §45Y(d)(2) and 26 U.S.C. §48E(e)(2). However, because credit eligibility is based on the year a facility begins construction, whereas receipt of the credits is based on when a facility is placed in service, taxpayers may receive the credit after the final year of new eligibility. For example, if the "applicable year" is 2032, a taxpayer that begins construction on a new facility in 2035 could receive a clean electricity production tax credit equal to 50% of the normal credit amount. If the facility completes construction and begins providing electricity to consumers in 2038, the taxpayer could receive the credit for 10 years from 2038 to 2047. If the taxpayer in this example instead opts for the clean electricity investment tax credit, the taxpayer would receive a one-time credit equal to 50% of the normal credit amount in 2038.

[12] 26 U.S.C. §48E(a)(2), 26 U.S.C. §45Y(a)(2), and 26 U.S.C. §45Y(c).

[13] 26 U.S.C. §45Y(b)(1)(B) and 26 U.S.C. §45(a)(2)(A)(ii).

[14] 26 U.S.C. §45Y(b)(1)(A) and 26 U.S.C. §48E(b)(3).

[15] 26 U.S.C. §45Y(b)(1)(D), 26 U.S.C. §48(a)(3), 26 U.S.C. §48(a)(5), and 26 U.S.C. §48E(b)(3)(C). The domestic content bonus credits are separate from the bonus credits mentioned in the previous paragraph.

and are placed in service in 2025 or later are eligible for each of the four credits; they may claim one.

Under both the renewable-energy and technology-neutral frameworks, ITC and PTC amounts can be influenced by various factors. Bonus credits are available for facilities placed in high-unemployment areas that have lost fossil fuel jobs or fossil fuel industry tax revenues in recent decades; credit amounts are decreased for facilities financed with tax-exempt bonds; certain small facilities may receive full credit amounts without meeting prevailing wage and registered apprenticeship requirements; PTC amounts are adjusted annually for inflation; and various other rules apply. These rules and others are discussed in greater detail in CRS Report R46865, *Energy Tax Provisions: Overview and Budgetary Cost* and CRS Report R47202, *Tax Provisions in the Inflation Reduction Act of 2022 (H.R. 5376)*. The IRA offers three types of bonus credits, though this report focuses exclusively on the domestic content bonus credits. The other types of bonus credits are energy community bonus credits and low-income communities bonus credits.[16]

Domestic Content Bonus Credits

For the four credits discussed above, bonus credits are available to energy providers who meet specific *domestic content requirements*.[17] To meet these requirements, all of the steel, all of the iron, and a portion of the manufactured products used in credit-eligible electricity facilities must come from domestic sources.[18]

The bonus credit amounts are the same under the renewable-energy and technology-neutral frameworks. PTC recipients meeting domestic content requirements have their credit amounts increased by 10%.[19] Bonus credits cannot be "compounded," meaning that if a firm is eligible for a 10% domestic content bonus credit and a second 10% bonus credit, its PTC will be increased by 20%, not 21% (which would factor the first credit into the base for calculation of the second). For ITC recipients, the domestic content bonus increases credit amounts by one-third; for firms meeting prevailing wage and registered apprenticeship requirements during the facility's construction phase, the ITC credit rate is increased from 30% to 40%.[20]

To satisfy the domestic content requirements, 100% of the structural steel and iron used as components in an energy facility must be produced completely in the United States.[21] In addition, to receive the bonus credit, a certain *adjusted percentage* of the manufactured products in an energy facility must be "mined, produced, or manufactured in the United States."[22] (Steel and iron

[16] For information on the energy communities bonus credit program, see Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization, *Energy Community Tax Credit Bonus*, 2024, https://energycommunities.gov/energy-community-tax-credit-bonus/. For information on the low-income communities bonus credit program, see Internal Revenue Service, *Low-Income Communities Bonus Credit*, November 22, 2024, https://www.irs.gov/credits-deductions/low-income-communities-bonus-credit. The latter program may supplement the renewable-energy ITC or the technology-neutral ITC, but not one of the PTCs.

[17] 26 U.S.C. §45(b)(9), 26 U.S.C. §45Y(g)(11), 26 U.S.C. §48(a)(12), and 26 U.S.C. §48E(a)(3)(B).

[18] 26 U.S.C. §45(b)(9), 26 U.S.C. §45Y(g)(11), 26 U.S.C. §48(a)(12), and 26 U.S.C. §48E(a)(3)(B).

[19] 26 U.S.C. §45(b)(9)(A) and 26 U.S.C. §45Y(g)(11)(A). Because firms meeting prevailing wage and registered apprenticeship requirements receive larger PTCs than firms not meeting such requirements, the domestic content bonus credit will implicitly be larger for firms meeting such requirements.

[20] 26 U.S.C. §48(a)(12)(C) and 26 U.S.C. §48E(a)(3)(B). For firms not meeting prevailing wage and registered apprenticeship requirements, the ITC credit rate is increased from 6% to 8%.

[21] 26 U.S.C. §45(b)(9), 26 U.S.C. §48(a)(12), 26 U.S.C. §45Y(g)(11), and 26 U.S.C. §48E(a)(3)(B). This includes all manufacturing processes except for certain metallurgical refinement processes.

[22] 26 U.S.C. §45(b)(9), 26 U.S.C. §48(a)(12), 26 U.S.C. §45Y(g)(11), and 26 U.S.C. §48E(a)(3)(B). Various (continued...)

used in manufactured products are subject to the manufactured products requirement rather than the steel and iron requirements.)[23] The *adjusted percentage* is measured as a share of the total costs of a facility's manufactured products, and the exact percentages differ by the year of the facility's construction, the credit being claimed, and the type of energy facility.

The adjusted percentage thresholds are lower for offshore wind facilities than for other energy facilities. For the renewable-energy PTC, the renewable-energy ITC, and the technology-neutral ITC, the adjusted percentage is 20% for offshore wind facilities and 40% for other energy facilities.[24] For the technology-neutral PTC, different adjusted percentages apply based on the year a facility begins construction.

Table 1 shows the adjusted percentages required to meet the manufactured products requirement for the domestic content bonus credit under the technology-neutral PTC. Notably, for facilities that began construction in 2024 or earlier, the adjusted percentage is 20% for offshore wind facilities and 40% for other energy facilities, which is consistent with the adjusted percentages required under the renewable-energy tax credits.

Table 1. Manufactured Product Adjusted Percentage Requirements for the Domestic Content Bonus Credit Under the Technology-Neutral Production Tax Credit

Percentage of manufactured product costs from domestic sources, by type of energy facility

Beginning of Facility Construction (Year)	All Energy Facilities, Excluding Offshore Wind	Offshore Wind Facilities
2024 or earlier	40.0%	20.0%
2025	45.0%	27.5%
2026	50.0%	35.0%
2027	55.0%	45.0%
2028 or later	55.0%	55.0%

Source: 26 U.S.C. §45Y(g)(11)(C).

As discussed in the **Appendix**, the adjusted percentage threshold for the domestic content bonus credit under the technology-neutral ITC is different from the thresholds applied to the technology-neutral PTC. The legislative history does not address why different rules are applied to the ITC domestic content bonus credit, and the anomaly appears to have gone unnoticed in public discussion. The possibility that it was unintended cannot be ruled out.

infrastructure programs enacted as part of the Infrastructure Investment and Jobs Act (P.L. 117-58) also require recipients of federal funding to draw 100% of their steel, 100% of their iron, and 55% of their manufactured products from domestic sources. For more information on the domestic sourcing requirements in P.L. 117-58, see CRS In Focus IF11989, *Congress Expands Buy America Requirements in the Infrastructure Investment and Jobs Act (P.L. 117-58)*, by William J. Mallett.

[23] Brent Sabot et al., "New Treasury Guidance on IRA Domestic Content Rules: Clarity on Qualifications for Increased Energy Credit Rates," RSM US, May 19, 2023, https://rsmus.com/insights/tax-alerts/2023/new-treasury-guidance-on-ira-domestic-content-rules.html. Martha G. Pugh et al., "Domestic Content Guidance Offers Much Needed Answers But Also Raises Uncertainty About Qualification Requirements," K&L Gates LLP, May 17, 2023, https://www.klgates.com/Domestic-Content-Guidance-Offers-Much-Needed-Answers-but-Also-Raises-Uncertainty-about-Qualification-Requirements-5-17-2023. Michael Wagner et al., "Treasury Releases Long-Awaited Guidance for Domestic Content Bonus Credit Under Inflation Reduction Act," Covington, May 15, 2023, https://www.insidegovernmentcontracts.com/2023/05/treasury-releases-long-awaited-guidance-for-domestic-content-bonus-credit-under-inflation-reduction-act/.

[24] 26 U.S.C. §45(b)(9), 26 U.S.C. §48(a)(12), and 26 U.S.C. §48E(a)(3)(B).

Domestic Content Requirements: Phaseout and Elimination of Direct Payments

Domestic content requirements are applied not only to the bonus credits, but also to *direct payments in lieu of tax credits*. This tax mechanism, described in greater detail below, is applied to 12 tax credits enacted or modified by the IRA, including the four tax credits described in this report.[25] With the exception of the technology-neutral ITC, the domestic content requirements for direct payments are the same as for the domestic content bonus credits. Failure to meet the domestic content requirements generally results in either ineligibility for direct payments or reductions in direct payment amounts. These rules may affect a large number of electricity providers and could result in fewer organizations qualifying for direct payments, greater usage of domestically sourced content among electricity providers, or some combination of the two. However, based on waivers provided in recent Treasury regulations, the requirements are unlikely to have much effect through the end of 2026; these waivers are discussed in the section "Waiving Domestic Content Requirements for Direct Payments."

Background: Direct (Cash) Payments in Lieu of Tax Credits

Direct cash payment in lieu of tax credits, commonly referred to as *direct payments*, *direct cash payments*, or *elective payments*, allow untaxed entities to receive cash payments of equivalent value to certain federal tax credits. Because untaxed entities do not pay federal income taxes, they implicitly cannot benefit from traditional tax credits, which are used to reduce income tax liabilities.

In an attempt to increase clean energy investment among untaxed entities, the IRA made untaxed entities eligible for direct payments in lieu of 12 energy tax credits.[26] Entities eligible for direct payments include

- rural electricity cooperatives;
- the Tennessee Valley Authority;
- Alaska Native Corporations;
- state governments and political subdivisions thereof (including city governments, county governments, and school districts);
- Indian tribal governments; and
- any private-sector entity exempt from federal income taxes, including 501(c)(3) organizations such as hospitals, private colleges, and think tanks.[27]

[25] CRS In Focus IF12596, *Tax Credit Transfers and Direct Payments in the Inflation Reduction Act of 2022*, by Nicholas E. Buffie.

[26] The 12 credits are the alternative fuel vehicle refueling property credit in Internal Revenue Code [IRC] §30C, the renewable-energy PTC (IRC §45), the credit for carbon oxide sequestration (IRC §45Q), the zero-emission nuclear power production credit (IRC §45U), the clean hydrogen production credit (IRC §45V), the credit for qualified commercial clean vehicles (IRC §45W), the advanced manufacturing production credit (IRC §45X), the technology-neutral PTC (IRC §45Y), the clean fuel production credit (IRC §45Z), the renewable-energy ITC (IRC §48), the qualifying advanced energy property credit (IRC §48C), and the technology-neutral ITC (IRC §48E). For more information on these credits and rules governing direct payments of these credits, see CRS Report R46865, *Energy Tax Provisions: Overview and Budgetary Cost*, by Nicholas E. Buffie and Donald J. Marples, and CRS In Focus IF12596, *Tax Credit Transfers and Direct Payments in the Inflation Reduction Act of 2022*, by Nicholas E. Buffie.

[27] CRS In Focus IF12596, *Tax Credit Transfers and Direct Payments in the Inflation Reduction Act of 2022*, by (continued...)

Organizations receiving direct payments must file a return with the Internal Revenue Service (IRS) at the tax filing deadline (with ordinarily applicable extensions).[28] Direct payment amounts are increased 6.0445% above the underlying tax credit's normal value;[29] however, because direct payments are a form of spending subject to budget sequestration, the initial credit itself is decreased 5.7%.[30] Except in periods when budget sequestration is removed, this results in direct payments of equal value to ordinary tax credits.[31]

Although data on direct pay recipients are not publicly available, such recipients could make up a significant share of new electricity providers. In 2017, publicly owned electric utilities (POUs) served approximately 24 million customers, and cooperatives served 20 million customers; jointly, POUs and cooperatives supplied electricity to 28% of domestic customers.[32] However, the electricity tax credits in the IRA only apply to new electricity facilities, which may not follow the same distribution of POUs, cooperatives, and investor-owned utilities as existing electricity providers. As of March 2024, over 500 entities had registered for direct payments or credit transfers (another IRA tax mechanism for entities with low tax liabilities), with over 95% of registrants applying for direct payments or transferability of the two renewable-energy tax credits.[33] It is not clear how many renewable-energy tax credit recipients applied for direct payments as opposed to transferability, nor is it clear what share of applicants were ultimately approved.

Phaseout and Elimination of Direct Payments for Electricity Facilities Not Meeting Domestic Content Requirements

To receive full direct payments, entities applying for (1) the renewable-energy ITC, (2) the renewable-energy PTC, or (3) the technology-neutral PTC must comply with the credit's domestic content bonus credit requirements.[34] This is not true of the technology-neutral ITC; rather, the domestic content requirements for technology-neutral ITC direct payments are the same as those shown in **Table 1**. In other words, the 40% manufactured products threshold (20% for offshore wind facilities) applies to

- direct payments of the renewable-energy ITC;

Nicholas E. Buffie. Organizations that are not tax-exempt entities can also claim direct payments in place of the credits for carbon oxide sequestration (IRC §45Q), clean hydrogen production (IRC §45V), and advanced manufacturing production (IRC §45X). However, they may only do so for five years, starting with the year a facility is placed in service. This election cannot be made after December 31, 2032.

[28] CRS In Focus IF12596, *Tax Credit Transfers and Direct Payments in the Inflation Reduction Act of 2022*.

[29] P.L. 117-169.

[30] Internal Revenue Service (IRS), *FY2024 Effect of Sequestration on Inflation Reduction Act of 2022 (IRA) Elective Payment Elections (EPE)*, November 12, 2024, https://www.irs.gov/newsroom/fy-2024-effect-of-sequestration-on-inflation-reduction-act-of-2022-ira-elective-payment-elections-epe.

[31] The amount is first reduced 5.7%, leaving recipients with 94.3 cents of direct payments for every $1 of tax credits. This 94.3-cent amount is then multiplied by 1.060445, bringing the amount back up to 100 cents for every $1 of credits.

[32] Anodyne Lindstrom and Sara Hoff, "Investor-owned Utilities Served 72% of U.S. Electricity Customers in 2017," U.S. Energy Information Administration, August 15, 2019, https://www.eia.gov/todayinenergy/detail.php?id=40913. In 2017, over 94% of electricity providers were POUs or cooperatives, but because such providers are typically smaller than investor-owned utilities (IOUs), they accounted for a far smaller share of total electricity supply than the sheer number of providers would suggest.

[33] Department of the Treasury, "U.S. Department of the Treasury, IRS Announce New Milestone in Implementation of Key Provisions to Expand the Reach of Clean Energy Tax Credits," press release, March 19, 2024, https://home.treasury.gov/news/press-releases/jy2190.

[34] 26 U.S.C. §45, 26 U.S.C. §45Y, and 26 U.S.C. §48.

- direct payments of the renewable-energy PTC;
- the domestic content bonus credit for the renewable-energy ITC;
- the domestic content bonus credit for the renewable-energy PTC; and
- the domestic content bonus credit for the technology-neutral ITC.

By contrast, the requirements in **Table 1** apply to

- direct payments of the technology-neutral PTC;
- direct payments of the technology-neutral ITC; and
- the domestic content bonus credit for the technology-neutral PTC.

The legal statutes establishing the anomalous treatment of the technology-neutral ITC are discussed in greater detail in the **Appendix**.

For facilities that begin construction in 2024 or 2025, failure to meet the domestic content requirements reduces direct payment amounts.[35] Facilities that begin construction after 2025 and that do not meet domestic content requirements are ineligible for direct payments.[36] **Table 2** shows the amount of direct payments as a percentage of normal tax credit values based on the year a facility begins construction.

Table 2. Direct Payment Amounts as a Percentage of Ordinary Tax Credit Values for Energy Facilities Not Meeting Domestic Content Requirements

	Renewable-Energy Tax Credits		**Technology-Neutral Tax Credits**	
	Production Tax Credit (IRC Section 45)	Energy Investment Tax Credit (IRC Section 48)	Clean Electricity Production Tax Credit (IRC Section 45Y)	Clean Electricity Investment Tax Credit (IRC Section 48E)
Facility beginning construction in				
2023 or earlier	100%	100%	100%	100%
2024	90%	90%	90%	90%
2025	Facility is not eligible for a renewable-energy tax credit. (Facility construction must begin before 2025 to qualify.)		85%	85%
2026 or later			0%	0%

Source: 26 U.S.C. §45(b)(10(C), 26 U.S.C. §48(a)(13), 26 U.S.C. §45Y(g)(12)(C), and 26 U.S.C. §48E(d)(5).

Notes: Under budget sequestration, direct payment amounts are decreased 5.7%. The payments are thereafter increased 6.0445%, resulting in direct payments of equal value to ordinary income tax credits. During periods without budget sequestration, the 6.0445% increase may result in larger direct payments than indicated above. For example, without sequestration, a facility that began construction in 2024 that did not meet the domestic content requirements could receive a direct payment equal to 90% of the underlying tax credit value; its credit would then be increased by a factor of 1.060445, resulting in a direct payment equivalent to 95.4% of the underlying tax credit amount.

Direct payment recipients are eligible for the domestic content bonus credit.[37] Unless a facility is exempt from the domestic content requirements for direct payments (as described below), an

[35] 26 U.S.C. §45(b)(10(C), 26 U.S.C. §48(a)(13), 26 U.S.C. §45Y(g)(12)(C), and 26 U.S.C. §48E(d)(5).

[36] 26 U.S.C. §45(b)(10(C), 26 U.S.C. §48(a)(13), 26 U.S.C. §45Y(g)(12)(C), and 26 U.S.C. §48E(d)(5).

[37] IRS, "Elective Pay and Transferability Frequently Asked Questions: Elective Pay," August 20, 2024, https://www.irs.gov/credits-deductions/elective-pay-and-transferability-frequently-asked-questions-elective-pay#applicablecredits.

untaxed entity's compliance with the domestic content requirements for direct pay will also make it eligible for the domestic content bonus credit.

Exceptions to the Domestic Content Requirements for Direct Payments

Three legal exceptions allow energy providers to qualify for full direct payments without meeting the domestic content requirements. First, if a facility's maximum net electrical output (as measured in alternating current) is less than 1 megawatt, the firm may receive direct payments regardless of the domestic content requirements.[38] Second, the Secretary of the Treasury may waive the requirements if "the inclusion of steel, iron, or manufactured products which are produced in the United States increases the overall costs of construction of qualified facilities by more than 25 percent."[39] Third, the Secretary may also waive the requirements if "[the] relevant steel, iron, or manufactured products are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality."[40] As discussed in the section "Waiving Domestic Content Requirements for Direct Payments," the Secretary of the Treasury has waived the domestic content requirements for direct payments through the end of 2026.

Potential Effects of Domestic Content Requirements for Direct Payments

When a waiver or other exemption is not in effect, the domestic content requirements may affect direct payment recipients in one of four ways:

1. If a direct payment recipient would have met the domestic content requirements even if the requirements did not reduce or eliminate direct payments, the requirements will not have any effect on the organization's behavior.
2. If a potential electricity provider would have qualified for direct payments without the requirements but determines that the requirements are prohibitively costly, it may choose to not build an electricity facility under consideration.
3. If a potential electricity provider would have qualified for direct payments without the requirements but determines that the requirements are prohibitively costly, it may decide to build a facility that does not meet the requirements (and therefore will not qualify for direct payments).
4. An electricity provider may decide to purchase more of its steel, iron, and manufactured products from domestic producers, thereby allowing it to qualify for direct payments. This could lead to higher revenues for the domestic steel, iron, and intermediate energy products industries, but it could also lead to higher electricity prices for domestic consumers.

Because the domestic content requirements are currently being waived for direct payment recipients, it is not clear how they will affect domestic electricity supply once they take effect. The total impact will likely include some mix of four effects discussed above, but the significance of each effect is not yet clear.

[38] 26 U.S.C. §45(b)(10)(B), 26 U.S.C. §48(a)(13), 26 U.S.C. §45Y(g)(12)(B), and 26 U.S.C. §48E(d)(5).

[39] 26 U.S.C. §45(b)(10)(D)(i), 26 U.S.C. §48(a)(13), 26 U.S.C. §45Y(g)(12)(D)(i), and 26 U.S.C. §48E(d)(5).

[40] 26 U.S.C. §45(b)(10)(D)(i), 26 U.S.C. §48(a)(13), 26 U.S.C. §45Y(g)(12)(D)(i), and 26 U.S.C. §48E(d)(5).

Preliminary IRS Regulations

As of December 3, 2024, the IRS had issued five regulatory guidance documents establishing rules for the domestic content requirements.[41] These regulations affect tax credit recipients in two important ways. First, regulations issued in 2023 and 2024 set forth rules for measuring the domestic content percentages of the manufactured products used in energy facilities. Second, in November 2024, the IRS issued widespread exemptions to the domestic content direct payment requirements for facilities that begin construction before 2027.

Measuring Domestic Content for Manufactured Products

Although recipients of direct payments and/or bonus credits are required to draw certain percentages of their manufactured products from domestic sources, the IRA does not specify how those percentages are measured.[42] The IRS has addressed this issue in Notice 2023-38 and Notice 2024-41, hereinafter referred to as "the 2023 guidance" and "the 2024 guidance," respectively.[43]

In the 2023 guidance, the IRS indicated that the domestic content percentages would be calculated as shares of the costs attributable to domestically sourced products.[44] For example, an organization that purchased $7 million of domestically manufactured products and $3 million of foreign-manufactured products would have a 70% domestic content share. Although simple in theory, the 2023 guidance required firms to collect detailed information from their suppliers, including data on *direct material costs* and *direct labor costs*.[45] *Direct material costs* include the costs of materials integrated into final goods and materials consumed (i.e., used up) when producing final goods.[46] *Direct labor costs* include the wages, payroll taxes, and supplemental unemployment benefit plan contributions paid on behalf of employees and independent contractors; the costs of tax-deductible fringe benefits such as worker health insurance are not included.[47] The domestic content shares of both manufactured products and manufactured product components were to be calculated using these definitions of direct costs.[48]

In its 2024 guidance, the IRS acknowledged that this system could impose significant compliance costs on tax credit recipients.[49] The 2024 guidance therefore provided an alternative measurement

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[41] IRS, "Domestic Content Bonus Credit," November 25, 2024, https://www.irs.gov/credits-deductions/domestic-content-bonus-credit. The regulatory guidance documents are Notice 2022-51, Notice 2023-38, Notice 2024-9, Notice 2024-41, and Notice 2024-84.

[42] P.L. 117-169.

[43] IRS, *Domestic Content Bonus Credit Guidance under Sections 45, 45Y, 48, and 48E*, Notice 2023-38, May 12, 2023, https://www.irs.gov/pub/irs-drop/n-23-38.pdf, and Internal Revenue Service, *Domestic Content Bonus Credit Amounts under the Inflation Reduction Act of 2022: Expansion of Applicable Projects for Safe Harbor in Notice 2023-38 and New Elective Safe Harbor to Determine Cost Percentages for Adjusted Percentage Rule*, Notice 2024-41, May 16, 2024, https://www.irs.gov/pub/irs-drop/n-24-41.pdf.

[44] IRS, Notice 2023-38.

[45] IRS, Notice 2023-38.

[46] For the full definition, see Cornell Law School, Legal Information Institute, "26 CFR § 1.263A-1—Uniform Capitalization of Costs," https://www.law.cornell.edu/cfr/text/26/1.263A-1#:~:text=(A)%20Direct,material%20cost.

[47] For the full definition, see Cornell Law School, Legal Information Institute, "26 CFR § 1.263A-1—Uniform Capitalization of Costs," https://www.law.cornell.edu/cfr/text/26/1.263A-1#:~:text=(B)%20Direct,benefit%20plan.

[48] Michael Wagner et al., "Treasury and IRS Release New Guidance on Inflation Reduction Act Domestic Content Bonus Credit," Covington, May 21, 2024, https://www.insidegovernmentcontracts.com/2024/05/treasury-and-irs-release-new-guidance-on-inflation-reduction-act-domestic-content-bonus-credit/.

[49] IRS, Notice 2024-41. Page 8 states: "The Treasury Department and the IRS are aware that obtaining a
(continued...)

system for the domestic content thresholds: Solar panel farms, land-based wind farms, and battery electric storage systems may instead use *assigned cost percentages (ACPs)* from three *new elective safe harbor (NESH)* tables published by the IRS.[50] ACPs are assigned percentages of energy system costs as determined by the Department of Energy.[51]

A portion of the NESH table for land-based wind is reproduced below. **Table 3** shows the ACPs for the manufactured products and manufactured product components used to construct a wind facility. A land-based wind farm that used blades and rotor hubs produced in the United States, but that otherwise used foreign manufactured products, would have a 41.1% domestic content share for its manufactured products. (This accounts for 31.2% ACP for blades and the 9.9% ACP for rotor hubs.) Manufactured products and manufactured product components not listed in the table do not affect the domestic content calculations.[52]

Table 3. Assigned Cost Percentages for Manufactured Products Used to Construct Land-Based (Onshore) Wind Facilities

Manufactured Product	Manufactured Product Component	Assigned Cost Percentage
Wind Turbine *98.4% of Manufactured Product Costs*	Blades	31.2%
	Rotor Hub	9.9%
	Nacelle	47.5%
	Power Converter	8.9%
	PRODUCTION	0.9%
Wind Tower Flanges *1.6% of Manufactured Product Costs*	Material[a]	0.8%
	PRODUCTION[a]	0.8%

Source: Internal Revenue Service, *Domestic Content Bonus Credit Amounts under the Inflation Reduction Act of 2022: Expansion of Applicable Projects for Safe Harbor in Notice 2023-38 and New Elective Safe Harbor to Determine Cost Percentages for Adjusted Percentage Rule*, May 16, 2024, pp. 16-17, https://www.irs.gov/pub/irs-drop/n-24-41.pdf.

Notes: This is a replication of the manufactured products portion of table 2 from Notice 2024-41. The columns in table 2 are titled "APC" (for "Applicable Project Component"), "MPC" (for "Manufactured Product Component"), and "Value." The columns have been renamed to avoid confusion among the acronyms APC, MPC, and ACP.

a. A footnote below table 2 in Notice 2024-41 reads: "Flanges are typically made from single pieces of steel bar or pre-formed steel ingot; therefore the only component of a flange would be the steel material."

Table 3 contains two production rows that have ACPs of 0.9% and 0.8%. These rows refer to the final production of the manufactured product; to count the given ACP as domestic, all of the manufactured product components as well as the final manufacturing process must take place in

manufacturer's direct costs of manufacturing may require the taxpayer to gather cost data from multiple suppliers and manufacturers, including foreign manufacturers, and may present challenges for substantiation and verification."

[50] IRS, Notice 2024-41, pp. 15-17.

[51] IRS, Notice 2024-41, pp. 3-10. Page 8 of the 2024 guidance briefly describes how the Department of Energy (DOE) calculated the ACPs, noting: "To generate the cost percentage information, the DOE utilized cost data from a variety of sources, including datasets of system characteristics, price indices, U.S. survey data from the government (for example, the U.S. Bureau of Labor Statistics, Department of Labor) and private sector, public filings from corporations, and comprehensive interviews of manufacturers, installers, developers, and owners of the representative technologies."

[52] Wagner et al., "Treasury and IRS Release New Guidance," and Michael Sykes et al., "Navigating the New Elective Safe Harbor for the Domestic Content Bonus Tax Credit," A&O Shearman, May 30, 2024, https://www.aoshearman.com/en/insights/navigating-the-new-elective-safe-harbor-for-the-domestic-content-bonus-tax-credit.

the United States.[53] For example, if a domestically produced power converter, nacelle, rotor hub, and blades (which have combined ACPs of 97.5%) are all used to produce a wind turbine in the United States, the energy provider may claim an additional 0.9% domestic ACP, bringing its total domestic cost share for manufactured products up to 98.4%. Even if the final production of the wind turbine occurs in the United States, if one or more manufactured product components come from a foreign source, the energy provider cannot claim the 0.9% ACP for production.[54] (A similar rule was included in the 2023 guidance.)[55]

The 2024 guidance also contained rules for mixed source items (MSIs) with both domestic and foreign sourcing. While the rules differ by MSI, the guidance generally establishes that the domestic content share is (1) proportional to the MSI's nameplate capacity, (2) proportional to the nameplate capacity of the project's modules, or (3) deemed to be zero, meaning that the MSI is counted as being foreign sourced.[56]

Solar panels, onshore wind, and battery storage facilities may use either the cost system established in the 2023 guidance or the NESH tables included in the 2024 guidance; facility owners cannot mix and match the two systems.[57] All other credit-eligible energy systems must rely on the 2023 guidance for the time being.[58] However, the Treasury Department indicated in May 2024 that it intends to issue NESH tables for additional energy technologies such as offshore wind.[59]

Waiving Domestic Content Requirements for Direct Payments

As noted in the section "Exceptions to the Domestic Content Requirements for Direct Payments," the Secretary of the Treasury may waive the domestic content requirements for direct payment recipients if "the inclusion of steel, iron, or manufactured products which are produced in the United States increases the overall costs of construction of qualified facilities by more than 25 percent" or if "[the] relevant steel, iron, or manufactured products are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality."[60]

As of January 2024, the IRS had not proposed any rules or regulations describing how this statutory language ought to be interpreted. Instead, IRS Notice 2024-9 (issued in December 2023) provided a safe harbor for organizations hoping to qualify for direct payments through one of the exceptions described above.[61] IRS Notice 2024-9 stated that an organization could qualify for direct payments without meeting the domestic content requirements if the organization submitted a signed attestation as described below:

[53] IRS, Notice 2024-41.

[54] IRS, Notice 2024-41.

[55] Michael Wagner et al., "Treasury Releases Long-Awaited Guidance for Domestic Content Bonus Credit Under Inflation Reduction Act," Covington, May 15, 2023, https://www.insidegovernmentcontracts.com/2023/05/treasury-releases-long-awaited-guidance-for-domestic-content-bonus-credit-under-inflation-reduction-act/.

[56] IRS, Notice 2024-41, pp. 11-13.

[57] Wagner et al., "Treasury and IRS Release New Guidance."

[58] Wagner et al., "Treasury and IRS Release New Guidance."

[59] Department of the Treasury, "U.S. Department of the Treasury, IRS Release Additional Guidance to Boost American Clean Energy Manufacturing," press release, May 16, 2024, https://home.treasury.gov/news/press-releases/jy2344.

[60] 26 U.S.C. §45(b)(10)(D)(i), 26 U.S.C. §48(a)(13), 26 U.S.C. §45Y(g)(12)(D)(i), and 26 U.S.C. §48E(d)(5).

[61] IRS, Statutory Exceptions to Phaseout Reducing Elective Payment Amounts for Applicable Entities if Domestic Content Requirements Are Not Satisfied, Notice 2024-9, Washington, DC, December 28, 2023, https://www.irs.gov/pub/irs-drop/n-24-09.pdf.

> An attestation is ... if an Applicable Entity attests, under penalties of perjury, that it has reviewed the requirements for the Increased Cost Exception and the Non-Availability Exception ... and has made a good faith determination that the qualified facility, energy project, or qualified investment with respect to a qualified facility or energy storage technology, as applicable, qualifies for either the Increased Cost Exception or the Non-Availability Exception, or both.[62]

Notice 2024-9 in essence allowed organizations applying for direct payments to decide whether they should qualify for such payments. Notice 2024-9 also required organizations submitting such attestations to keep records consistent with IRC Section 6001 that would "substantiate [the organization's] attestation."[63] IRC Section 6001 allows the Secretary of the Treasury to require individuals to "make such returns, render such statements, or keep such records, as the Secretary deems sufficient to show whether or not such person is liable for tax," though Notice 2024-9 did not clarify which returns, statements, or records would be "deem[ed] sufficient" by the Secretary.[64]

Notice 2024-9 applied to facilities that began construction before 2025.[65] On November 22, 2024, the IRS issued Notice 2024-84, which extended the safe harbor to all facilities that begin construction before January 1, 2027.[66] Notice 2024-84 indicated that the safe harbor date may be extended if "further guidance" has not been issued by 2027, and it indicated that "the Treasury Department and the IRS intend to propose regulations ... [that] will implement the statutorily-required exceptions to the phaseouts" at some point in the future.[67]

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62 IRS, Notice 2024-9, p. 8.

63 IRS, Notice 2024-9, p. 9.

64 IRS, Notice 2024-9, p.9, and 26 U.S.C. §6001.

65 IRS, Notice 2024-9.

66 IRS, *Extension of Transition Process for Claiming the Statutory Exceptions to the Elective Payment Phaseouts*, Notice 2024-84, November 22, 2024, p. 1, https://www.irs.gov/pub/irs-drop/n-24-84.pdf.

67 IRS, Notice 2024-84.

Appendix. Domestic Content Legal Specifications Under the Renewable-Energy and Technology-Neutral Frameworks

The energy investment tax credit (ITC), the production tax credit (PTC), the clean electricity investment tax credit (CEITC), and the clean electricity production tax credit (CEPTC) are legally authorized in Title 26 of the *U.S. Code* at Sections 48, 45, 48E, 45Y, respectively. Title 26 of the *U.S. Code* is known as the *Internal Revenue Code (IRC)* (or simply "tax code"), and Sections 48, 45, 48E, and 45Y are *IRC sections*.

This report has referred to the credits in IRC Sections 48, 45, 48E, and 45Y as the renewable-energy ITC, the renewable-energy PTC, the technology-neutral ITC, and the technology-neutral PTC, respectively. This language is used in the sections below, with references provided to the applicable IRC sections in various footnotes.

Domestic Content Legal Specifications in the Renewable-Energy Tax Credits and the Technology-Neutral Production Tax Credit

IRC Section 45(b)(9) authorizes the domestic content bonus credit for the renewable-energy PTC.[68] IRC Section 45(b)(9)(B) states that to receive the bonus, all steel and iron in the facility must be produced in the United States; IRC Section 45(b)(9)(C)(i) states that at least 40% of all manufactured products in the facility must be produced domestically, and IRC Section 45(b)(9)(C)(ii) sets the threshold at 20% for offshore wind facilities.[69] IRC Section 45(b)(10)(B)(i) states that the domestic content bonus credit requirements apply to direct payments, and Section 45(b)(10)(C) provides the direct payment amounts for facilities not meeting the requirements.[70] IRC Section 45(b)(10)(D) allows the Secretary of the Treasury to exempt facilities from the domestic content requirements for direct payments if such requirements would increase the facility's construction costs by more than 25% or if high-quality domestic materials are not available in sufficient quantity.[71] Similarly, IRC Section 45(b)(10)(B)(ii) allows full direct payments for facilities with "a maximum net output of less than 1 megawatt (as measured in alternating current)."[72] These exemptions are discussed in greater detail in the section "Phaseout and Elimination of Direct Payments for Electricity Facilities Not Meeting Domestic Content Requirements."

As with the renewable-energy PTC, the renewable-energy ITC uses the same domestic content requirements for the bonus credit and for direct payments. IRC Section 48(a)(12) states that IRC Section 45(b)(9)(B), which determines the PTC bonus credit, also applies to the bonus credit for the renewable-energy ITC.[73] IRC Section 48(a)(13) states that the rules in Section 45(b)(10) apply to the renewable-energy ITC; Section 45(b)(10) states that the domestic content requirements for bonus credits apply to direct pay eligibility, and further states that failure to meet the domestic content requirements reduces direct payment amounts 10% for facilities that began

[68] 26 U.S.C. §45(b)(9).

[69] 26 U.S.C. §45(b)(9)(B), 26 U.S.C. §45(b)(9)(C)(i), and 26 U.S.C. §45(b)(9)(C)(ii).

[70] 26 U.S.C. §45(b)(10).

[71] 26 U.S.C. §45(b)(10)(D).

[72] 26 U.S.C. §45(b)(10)(B)(ii).

[73] 26 U.S.C. §48(a)(12) and 26 U.S.C. §45(b)(9)(B).

construction in 2024.[74] Subsection (D) of IRC Section 45(b)(10) allows the Secretary of the Treasury to exempt certain facilities from the domestic content requirements for direct pay, as discussed above, and subsection (B)(ii) allows full direct payments for certain low-wattage electricity facilities.[75]

The technology-neutral PTC applies different domestic content requirements than those applied to the renewable-energy credits; however, like the renewable-energy credits, its domestic content bonus credit requirement is the same as its domestic content direct pay requirement. IRC Sections 45Y(g)(11)(A) and 45Y(g)(11)(B) authorize a 10% bonus credit for facilities meeting domestic content requirements; IRC Section 45Y(g)(11)(C)(ii) lists the required domestic content thresholds for manufactured products used in offshore wind facilities; and IRC Section 45Y(g)(11)(C)(i) lists the thresholds for manufactured products used in all other clean electricity facilities.[76]

For technologies other than offshore wind, IRC Section 45Y(g)(11)(C)(i) creates thresholds of 40% for facilities that began construction before 2025, 45% for facilities that begin construction in 2025, 50% for facilities that begin construction in 2026, and 55% for facilities that begin construction after 2026.[77] IRC Section 45Y(g)(12)(B) states that facilities meeting the domestic content bonus credit requirements are eligible for full direct payments, and Section 45Y(g)(12)(C) provides the reduced direct payment amounts for firms not meeting the requirements.[78]

For firms not meeting the domestic content requirements, the direct payment amount is 100% of the normal credit for facilities that began construction before 2024, 90% for facilities that began construction in 2024, and 85% for facilities that begin construction in 2025. Facilities that begin construction in 2026 or later are ineligible for direct payments if they do not meet the domestic content requirements.[79] (The renewable-energy credits and the technology-neutral credits provide the same direct payment reductions for facilities that began construction in 2024 and earlier years, but the renewable-energy credits do not include reduced direct payment amounts for later years because facilities that begin construction in 2025 or later are ineligible for the renewable-energy tax credits.)

IRC Section 45Y(g)(12)(D) allows the Secretary of the Treasury to exempt facilities from the domestic content requirements for direct payments if such requirements would increase the facilities' construction costs by more than 25% or if high-quality domestic materials are not available in sufficient quantity.[80] IRC Section 45Y(g)(12)(B)(ii) allows full direct payments for facilities with "a maximum net output of less than 1 megawatt (as measured in alternating current)."[81]

Similarities and Differences Among IRC Sections 45, 48, and 45Y

The technology-neutral PTC, unlike the renewable-energy tax credits, contains domestic content requirements for facilities that began construction after 2024; this adheres to the years when the

[74] 26 U.S.C. §48(a)(13) and 26 U.S.C. §45(b)(10).

[75] 26 U.S.C. §45(b)(10)(D) and 26 U.S.C. §45(b)(10)(B)(ii).

[76] 26 U.S.C. §45Y(g)(11).

[77] 26 U.S.C. §45Y(g)(11)(C)(i).

[78] 26 U.S.C. §45Y(g)(12).

[79] 26 U.S.C. §45Y(g)(12)(C).

[80] 26 U.S.C. §45Y(g)(12)(D).

[81] 26 U.S.C. §45Y(g)(12)(B)(ii).

credits are in effect, as facilities may only claim the renewable-energy tax credits if they began construction in 2024 or earlier. The domestic content thresholds for manufactured products are higher after 2024 than for the pre-2025 period, and the direct payment amounts for facilities not meeting the domestic content requirements become increasingly restrictive as well, with the amounts decreasing to 85% in 2025 and to 0% thereafter. (For all three credits, facilities not meeting the domestic content requirements may receive 100% of normal credit amounts as direct pay if they began construction before 2024 and 90% if they began construction in 2024.)

The rules governing the domestic content requirements are otherwise the same for the three credits. Under the requirements, all iron and steel must be produced in the United States; the required share of domestically produced manufactured products is lower for offshore wind facilities than for other facilities, until the required shares fully converge in 2028; and potential exemptions for direct pay recipients (25% or higher cost increase, insufficient quantity of high-quality domestic materials, and low-wattage facility rules) are identical. The domestic content requirements share another important similarity: In all three credits, the domestic content requirements for the bonus credit and for direct payments are the same. This is not true for the technology-neutral ITC.

Domestic Content Requirements for the Technology-Neutral ITC

In the technology-neutral ITC, different domestic content requirements apply to the bonus credit as opposed to the direct payments.

IRC Section 48E(a)(3)(B), which establishes the domestic content bonus credit, states: "Rules similar to the rules of section 48(a)(12) shall apply."[82] Section 48(a)(12) establishes the domestic content bonus credit for the renewable-energy ITC.[83] The renewable-energy ITC in turn draws its bonus credit requirements from the renewable-energy PTC, stating: "Rules similar to the rules of section 45(b)(9)(B) shall apply."[84] Section 45(b)(9)(B) states that, to meet the domestic content requirements for the renewable-energy PTC bonus credit, all of a facility's steel and iron must be domestically produced, as must 40% or more of a facility's manufactured products (20% in the case of offshore wind facilities).[85] This series of cross-referencing provisions therefore establishes a permanent 40% manufactured products threshold for the bonus credit in the technology-neutral ITC.[86] This differs from the manufactured products threshold in the technology-neutral PTC bonus credit. The technology-neutral PTC sets a 40% threshold only for facilities that began construction before 2025; the threshold rises in annual increments of 5 percentage-points until settling at 55% for facilities that begin construction in 2027 and later years.[87]

The IRS has issued guidance consistent with this analysis. In Notice 2023-38, the agency stated

> As provided in section 2.01 of this notice, § 48(a)(12)(B) provides that rules similar to the rules of § 45(b)(9)(B) apply for purposes of determining the domestic content bonus credit amount under § 48. Similarly, § 48E(a)(3)(B) provides that rules similar to the rules of §

[82] 26 U.S.C. §48E(a)(3)(B).

[83] 26 U.S.C. §48(a)(12).

[84] 26 U.S.C. §48(a)(12)(B).

[85] 26 U.S.C. §45(b)(9)(B) and 26 U.S.C. §45(b)(9)(C) (as cross-referenced in 26 U.S.C. §45(b)(9)(B)).

[86] Although the renewable-energy PTC authorized by IRC Section 45 is only available for facilities that began construction before 2025, the domestic content bonus credit requirements established in Section 45(b)(9) do not contain a legally codified timeframe. Application of Section 45(b)(9) to facilities receiving the technology-neutral ITC therefore does not require such facilities to begin construction before 2025 to receive a bonus credit; rather, the 40% threshold applies all years that the technology-neutral ITC is in effect.

[87] 26 U.S.C. §45Y(g)(11)(C). These threshold percentages were discussed on the previous page.

48(a)(12) apply for purposes of determining the domestic content bonus credit amount under § 48E.[88]

IRC Section 48E takes a different approach to the phaseout and elimination of direct payments. IRC Section 48E(d)(5) states that for direct payments in place of the technology-neutral ITC, "rules similar to the rules of section 45Y(g)(12) shall apply."[89] IRC Section 45Y(g)(12) sets the eligibility rules for direct payments of the technology-neutral PTC, stating the following in various subsections:

- The domestic content requirements for direct payments are the same as those in Section 45Y(g)(11).[90] Section 45Y(g)(11) establishes the bonus credit for the technology-neutral PTC.[91] The section states that, to receive a bonus credit, all of the steel and iron used in a facility must be produced domestically; the section also states that at least 40% of all manufactured products used in facilities that began construction before 2025 must be produced domestically, with the applicable percentage rising to 45% for facilities that begin construction in 2025, 50% for facilities that begin construction in 2026, and 55% for facilities that begin construction in 2027 or later years.[92] (The percentage thresholds are different for offshore wind facilities.)[93]
- For facilities not meeting the domestic content requirements, direct payment amounts will be equivalent to 100% of normal tax credit amounts if the facility began construction before 2024, 90% if the facility began construction in 2024, 85% if the facility begins construction in 2025, and 0% if the facility begins construction in 2026 or a later year.[94] Direct payment amounts are not reduced if instead one of the conditions listed below is met.
- Facilities "with a maximum net output of less than 1 megawatt (as measured in alternating current)" are eligible for direct payment amounts equivalent to the full tax credit value.[95]
- The Secretary of the Treasury may waive the domestic content requirements for direct payment recipients if such requirements would increase construction costs by more than 25% or if high-quality domestic materials are not available in sufficient quantity.[96]

Therefore, for the technology-neutral ITC, the domestic content bonus credit rules are drawn from the renewable-energy tax credits, whereas the domestic content requirements for direct payments are drawn from the technology-neutral PTC.

Table A-1 shows how these legal provisions create different manufactured product domestic content thresholds in the four tax credits, with the technology-neutral PTC bonus credit setting

[88] IRS, Notice 2023-38.

[89] 26 U.S.C. §48E(d)(5).

[90] 26 U.S.C. §45Y(g)(12)(B)(i).

[91] 26 U.S.C. §45Y(g)(11).

[92] 26 U.S.C. §45Y(g)(11).

[93] 26 U.S.C. §45Y(g)(11)(C)(ii).

[94] 26 U.S.C. §45Y(g)(12)(C).

[95] 26 U.S.C. §45Y(g)(12)(B)(ii).

[96] 26 U.S.C. §45Y(g)(12)(D).

lower thresholds those applied to other aspects of the technology-neutral credits. (**Table A-1** does not apply to offshore wind facilities.)

Table A-1. Manufactured Product Domestic Content Thresholds for Facilities Qualifying for ITC/PTC Bonus Credits or Direct Payments

Threshold Percentages by Year Facility Begins Construction

	Renewable-Energy Tax Credits				Technology-Neutral Tax Credits			
	Production Tax Credit (IRC Section 45)		Energy Investment Tax Credit (IRC Section 48)		Clean Electricity Production Tax Credit (IRC Section 45Y)		Clean Electricity Investment Tax Credit (IRC Section 48E)	
	Bonus Credits	Direct Payments	Bonus Credits	Direct Payments	Bonus Credits	Direct Payments	Bonus Credits	Direct Payments
Threshold if facility begins construction...								
Before 2024	40%	40%[a]	40%	40%[a]	40%	40%[a]	40%	40%[a]
In 2024	40%	40%	40%	40%	40%	40%	40%	40%
In 2025	N.A.	N.A.	N.A.	N.A.	45%	45%	40%	45%
In 2026	N.A.	N.A.	N.A.	N.A.	50%	50%	40%	50%
After 2026	N.A.	N.A.	N.A.	N.A.	55%	55%	40%	55%

Source: CRS analysis of Internal Revenue Code (IRC) Sections 45, 45Y, 48, and 48E.

Notes: These thresholds do not apply to offshore wind facilities. See **Table A-2**.

a. Facilities drawing less than 40% of their manufactured products from domestic sources violate the domestic content requirements, but violation of the domestic content requirements does not reduce direct payment amounts for facilities that began construction before 2024.

Table A-2 shows the manufactured product domestic content thresholds for offshore wind facilities, which differ from the thresholds for other types of qualifying energy facilities.

Table A-2. Manufactured Product Domestic Content Thresholds for Offshore Wind Facilities Qualifying for ITC/PTC Bonus Credits or Direct Payments

Threshold Percentages by Year Facility Begins Construction

	Renewable-Energy Tax Credits				Technology-Neutral Tax Credits			
	Production Tax Credit (IRC Section 45)		Energy Investment Tax Credit (IRC Section 48)		Clean Electricity Production Tax Credit (IRC Section 45Y)		Clean Electricity Investment Tax Credit (IRC Section 48E)	
	Bonus Credits	Direct Payments	Bonus Credits	Direct Payments	Bonus Credits	Direct Payments	Bonus Credits	Direct Payments
Threshold if facility begins construction...								
Before 2024	20%	20%[a]	20%	20%[a]	20%	20%[a]	20%	20%[a]
In 2024	20%	20%	20%	20%	20%	20%	20%	20%
In 2025	N.A.	N.A.	N.A.	N.A.	27.5%	27.5%	20%	27.5%
In 2026	N.A.	N.A.	N.A.	N.A.	35%	35%	20%	35%
In 2027	N.A.	N.A.	N.A.	N.A.	45%	45%	20%	45%
After 2027	N.A.	N.A.	N.A.	N.A.	55%	55%	20%	55%

Source: CRS analysis of Internal Revenue Code (IRC) sections 45, 45Y, 48, and 48E.

Notes:

a. Facilities drawing less than 20% of their manufactured products from domestic sources violate the domestic content requirements, but violation of the domestic content requirements does not reduce direct payment amounts for facilities that began construction before 2024.

The Technology-Neutral ITC's Break in Citation Structure

Table A-3 shows that the technology-neutral tax credits generally use the same citation structure as the renewable-energy tax credits for their domestic content requirements. Only the ITC bonus credits break the parallels between the domestic content requirements in the renewable-energy and technology-neutral tax credits.

Table A-3. Establishment of Domestic Content Requirements in the Renewable-Energy and Technology-Neutral Tax Credits

Renewable-Energy Tax Credits	Technology-Neutral Tax Credits
Domestic content requirements for the *renewable-energy PTC* bonus credit are described in 26 U.S.C. §45(b)(9).	Domestic content requirements for the *technology-neutral PTC* bonus credit are described in 26 U.S.C. §45Y(g)(11).
Domestic content requirements for the *renewable-energy PTC* bonus credit are applied to direct payments in lieu of the *renewable-energy PTC*.	Domestic content requirements for the *technology-neutral PTC* bonus credit are applied to direct payments in lieu of the *technology-neutral PTC*.
Domestic content requirements for the *renewable-energy PTC* bonus credit are applied to the *renewable-energy ITC* bonus credit.	Domestic content requirements for the *renewable-energy PTC* bonus credit are applied to the *renewable-energy ITC* bonus credit, which in turn are applied to *the technology-neutral ITC* bonus credit.
Domestic content requirements from the *renewable-energy PTC* bonus credit are applied to direct payments in lieu of the *renewable-energy PTC*, which in turn are applied to direct payments in lieu of the *renewable-energy ITC*.	Domestic content requirements from the *technology-neutral PTC* bonus credit are applied to direct payments in lieu of the *technology-neutral PTC*, which in turn are applied to direct payments in lieu of the *technology-neutral ITC*.

Source: CRS analysis of IRC Sections 45, 45Y, 48, and 48E. Emphasis added.

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