



Making Clean Energy Tax Credits Deliver for the Public: A User Guide for Governments, Schools, and Nonprofits

The Inflation Reduction Act extended and strengthened tax credits for investment in and production of a range of clean energy technologies—including solar, geothermal, wind, heat pumps, clean hydrogen, electric vehicles (EVs) and charging infrastructure—and energy storage technology. Critically, tax-exempt entities, such as public schools, non-profit hospitals, and Tribal, local, and state governments can now claim the tax credits in the form of “direct pay.”¹ In simple terms, direct pay will allow these entities to recoup a significant portion of a clean energy project’s cost as a tax-free cash payment from the U.S. Internal Revenue Service (IRS) for the taxable year the project is placed in service.

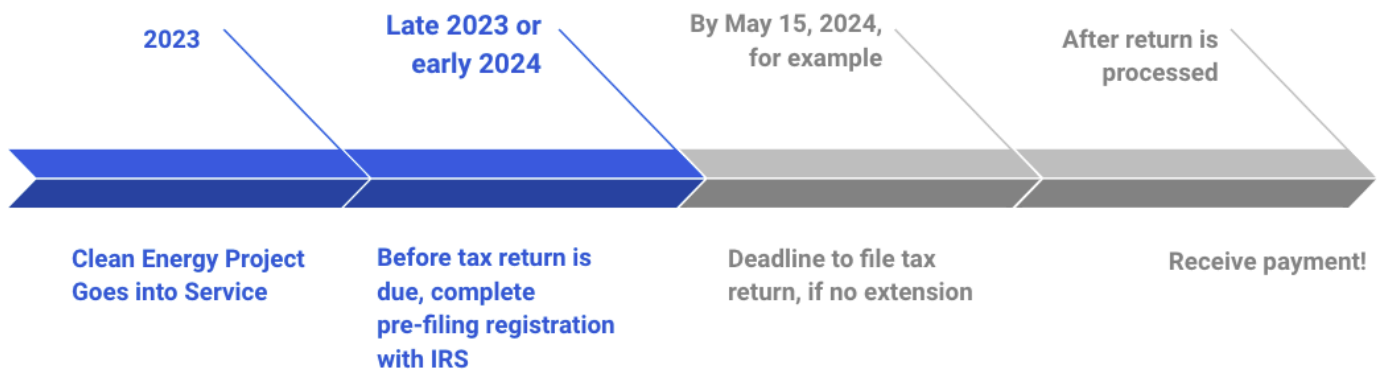
How Direct Pay Works

The Inflation Reduction Act established a significant new opportunity for public and nonprofit entities—including state, local, and Tribal governments; schools; public and nonprofit hospitals; and not-for-profit institutions—by providing an option for direct pay (also referred to as “elective pay”). Direct pay allows these entities to benefit from the extension and establishment of tax credits for a range of clean energy technologies and infrastructure. This includes production tax credits (PTC) and investment tax credits (ITC). The PTC is a tax credit claimed on each unit of output from a range of clean energy activities. The ITC is a tax credit that

is a percentage of the cost of a clean energy investment. Entities that plan to apply for direct pay must pre-register and be assigned a unique registration number for each project by the IRS before they can elect a direct cash payment. More guidance on how to receive this registration number is expected in the future.

Historically, because these tax credits were used to reduce entities’ tax liability, tax-exempt entities like schools and local governments have not been able to take advantage of them. Now, thanks to the Inflation Reduction Act’s establishment of direct pay, these entities can receive the full value of the tax credit as cash payment. Instead of a typical tax credit, direct pay operates more like a grant that an entity receives for the taxable year the project is placed in service. So, if a school completes a clean energy project in 2023, it will receive a direct payment in lieu of the tax credit after pre-registering the project, receive a registration number for the project, and then elect on a 2023 tax return filed in 2024 to receive a cash payment (Figure 1). Essentially, the IRS will treat the amount of the credit as an overpayment of tax for which the entity is entitled to a refund.^{2,3}

Figure 1: Example Timeline – School Clean Energy Project Placed into Service in 2023



This new opportunity unlocks significant funding sources for schools, public hospitals, government buildings, and nonprofits to make clean energy investments that were unaffordable prior to the passage of the Inflation Reduction Act. Historically, tax-exempt entities planning clean energy projects would weigh whether to own such projects themselves, in which case they may be able to finance them using tax-exempt bonds. They could also have private developers own the projects and claim federal tax credits and accelerated depreciation that—before the Inflation Reduction Act—amounted to roughly 44 cents per dollar of capital cost. The developer could then sell the electricity or other services from the projects to the tax-exempt entities at reduced prices that reflect a sharing of the tax subsidies. With direct pay, tax-exempt entities can own clean energy projects and retain the full value of the tax credits, instead of losing some, or all of that value to a private investor.

Who is eligible to take advantage of direct pay?

The following entities can utilize direct pay for qualifying clean energy tax credits:

- 1. State and Political Subdivisions and Tribal Governments:** States and their political subdivisions—such as counties, cities, and municipal utilities, Tribal governments, and governments of U.S. territories. This generally extends to Puerto Rico, Guam, the U.S. Virgin Islands, American Samoa, and the Northern Mariana Islands.
- 2. Instrumentalities of the State:** Public institutions, governed or authorized by a political body, such as public schools, public hospitals, and universities.
- 3. Non-Profit Entities:** Entities that are considered 501(c)(3) organizations or other entities that are not required to pay federal income tax, such as not-for-profit hospitals.
- 4. Other Eligible Entities:** The Tennessee Valley Authority, rural electric cooperatives, and Alaska Claims Corporations.

What types of projects can direct pay be used to fund?

Direct pay can be utilized by the eligible entities listed above with the following tax credits:

- 45: Production Tax Credit (PTC)
- 48: Investment Tax Credit (ITC)
- 48E: Technology-Neutral ITC
- 45Y: Technology-Neutral PTC
- 45Q: Carbon Sequestration Credit
- 45V: Clean Hydrogen Production Credit
- 45U: Zero-Emission Nuclear Power Production Credit
- 45X: Advanced Manufacturing Production Credit
- 45Z: Clean Transportation Fuels Credit
- 30C Alternative Fuel Vehicle Refueling Property Credit
- 45W: Credit for Qualified Commercial Clean Vehicles
- 48C: Advanced Energy Project Credit⁴

Direct pay can be utilized regardless of tax status (including by for-profit entities for up to five years) with the following tax credits:

- 45V: Clean Hydrogen Production Credit
- 45Q: Carbon Sequestration Credit
- 45X: Advanced Manufacturing Production Credit⁵

These tax credits can be used to fund a range of clean energy and infrastructure projects. Solar; EV charging; clean school bus, transit bus and other clean fleet purchasing; geothermal or heat pumps; battery storage; and numerous other projects are of particular relevance to tax-exempt entities like schools, local governments, and hospitals.



Maximizing Cash Payments Through Bonus Credits

Eligible entities can maximize the value of direct pay by taking advantage of various “bonus credits” that are available for certain projects. Specifically, entities can max out the value of the credit by meeting labor standards, utilizing domestic content, and locating projects in low-income and/or energy transition communities. These credits are uncapped and start to phase out two years after greenhouse gas emissions from the U.S. power sector are reduced by 75% below 2022 levels.

Labor Standards

For all of the tax credits that are available as direct pay (except for the 45X Advanced Manufacturing Production Tax Credit), entities must comply with wage and apprentice requirements to claim tax credits at the full amount. Failure to comply leads to tax credits worth only 20% of the full amount. For example, the base ITC is 30% if claimed at the full rate. It is only 6% if a project does not comply with the wage and apprentice requirements and is not exempted from compliance. Projects with a maximum output of less than 1 megawatt (MW) alternating current (ac) or that were under construction for tax purposes by January 28, 2023, are exempted.

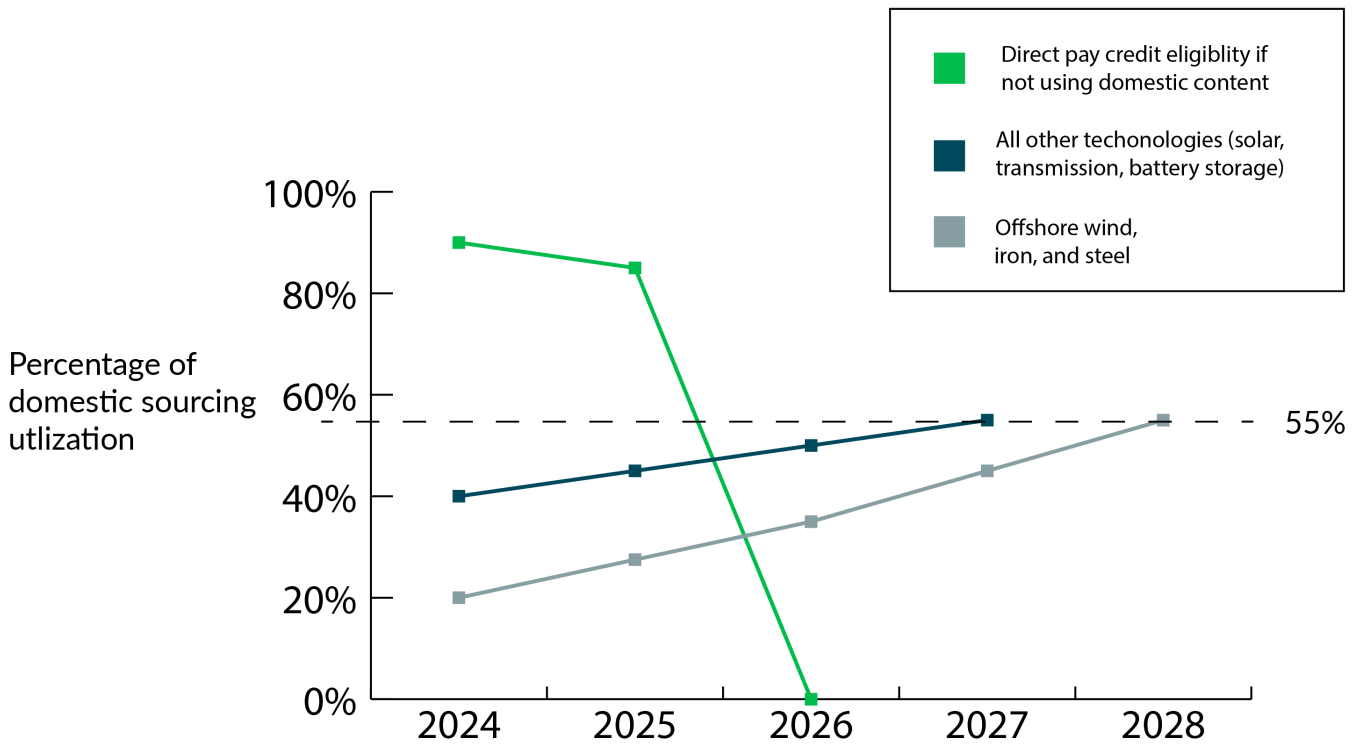
Domestic Content

The investment and production credits (45, 48, 45Y, 48E) have domestic content requirements. In order to qualify for the full value of direct pay for projects on which construction starts for tax purposes in 2024 or later, the steel, iron, and a certain share of “manufactured products” used in the construction of a qualifying facility must be produced in the United States. Entities that meet this standard can qualify for an additional bonus ITC equal to 10% of the amount of the project cost or bonus PTC equal to 1.1 times the base PTC rate.

To meet the domestic content preference, an energy facility must ensure:

1. 100% of the iron and steel products used in the project are produced in the United States. This requirement applies to items directly incorporated into the project that are “made primarily of steel or iron and are structural in function.” In a solar project, for example, this could include steel photovoltaic module racking or foundation rebar.
2. A percentage of the total cost of all “manufactured products” are produced in the United States. For most technologies, the percentage starts at 40% and ramps up to 55% over the next several years. This requirement applies to all manufactured items directly incorporated into the project, excluding those that fall under the iron and steel requirement.

Figure 2: Timing of Direct Pay and Domestic Sourcing Utilization



If an entity does not meet these domestic content standards, then the total amount of the tax credits eligible for direct pay decreases. Put simply, if an entity does not meet the domestic content preference, they not only lose out on the 10% bonus credit, but starting with projects that begin construction in 2024, they also will be eligible for a decreasing portion of direct pay: the percentage of the credit eligible for direct pay decreases starting in 2024 to 90%, 85% in 2025, and 0% starting in 2026. (Figure 2)

The BlueGreen Alliance has produced a [User Guide](#) for developers and entities eager to meet the domestic content standards.⁶

Targeting Disadvantaged Communities

Additional bonus credits are available for projects that target disadvantaged communities. Specifically, projects can receive a 10% bonus ITC if they are located in a low-income community or on Tribal lands and a 10% bonus ITC or commensurate bonus PTC if they are located in an energy transition community.⁷

All of these bonus credits can be stacked together to increase the total amount of the tax credit for a given project. This total amount (including the bonus credits) is eligible for direct pay. See **Table 1** for more details and additional hypothetical examples in **Appendix A** below.

Table 1: Stacking Clean Energy Tax Credits to Maximize Direct Pay

Stackable	Qualifying Project	Description
30%	For smaller projects (under 1 MWac) -and- For larger projects with labor standards	Qualifying projects with a maximum net output of 1 MWac or less qualify for the 30% bonus credit. Larger projects of at least 1 MWac must pay prevailing wages and utilize registered apprentices for a percentage of total labor hours to receive the full 30% credit. Larger projects that do not meet these standards qualify for an ITC or PTC at only 20% of the full amount. Percentage apprentice hours required: labor hours spent on facility construction, alteration, or repair work; at least 10% (rising to 12.5% for facilities where construction begins in 2023 and 15% in 2024 and later years).
+10%	Energy community ⁸	“Energy communities” are defined as communities that have seen significant job loss in the fossil fuel economy due to the closure of a coal mine or coal-fired power plant, or are host to a brownfield site.
+10% to 20%	Low-income community ⁹ or Tribal land (ITC solar or wind projects only)	10% for low-income communities or communities located on federally recognized Tribal land. 20% for affordable housing or a residential clean energy project in a low-income community. Note: Only available utilizing the ITC for solar and wind projects, with maximum net outputs of 5 MW; application required. Note: Federally recognized Tribal land and low-income communities can be identified using the White House Council on Environmental Quality Climate and Economic Justice Screening Tool. ¹⁰
+10%	Domestic content	When a percentage of the “total component cost” of manufactured products are made in the United States, qualifying projects receive this bonus credit.
Total Value of Tax Credit: 60-70%¹¹		

Next Steps

Direct pay is a transformative opportunity for tax-exempt entities to build and produce clean energy and infrastructure. Starting in the fall, entities who wish to access direct pay will need to pre-file with the IRS for each clean energy project. To prepare for this, entities will need to identify which tax credits they will claim as well as which tax year they are filing for. This will generally be the year the project is placed in service. The pre-filing process will also ask for information about the project that demonstrates eligibility for any bonus credits an entity is pursuing—like the domestic content bonus, energy communities bonus, and low-income communities bonus. Once the pre-filing process is completed, the IRS will issue a registration number that will be included

when an entity files its taxes at the end of that taxable year. project that demonstrates eligibility for any bonus credits an entity is pursuing—like the domestic content bonus, energy communities bonus, and low-income communities bonus. Once the pre-filing process is completed, the IRS will issue a registration number that will be included when an entity files its taxes at the end of that taxable year.



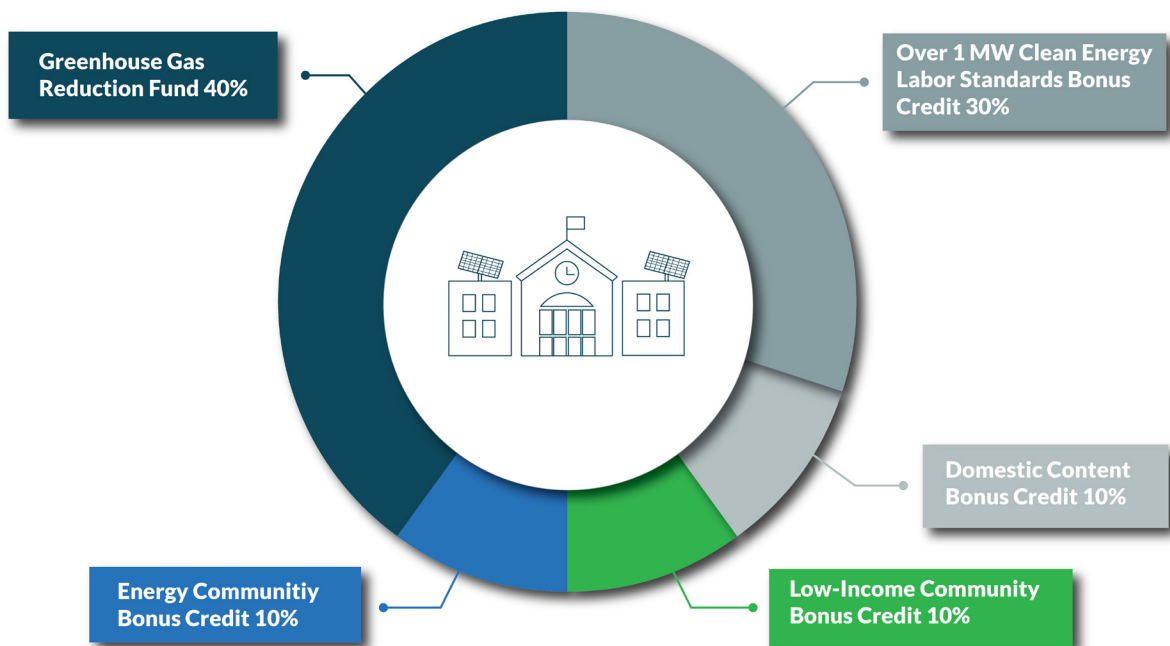
Appendix A: Hypothetical Direct Pay Examples

Below are examples of projects that are eligible for direct pay, and how these projects can stack bonus credits to maximize the value.

2023 School Solar Project in Colorado

A large K-12 public school in the city of San Luis, Colorado wants to install solar panels. It identifies the ITC as the tax credit that can fund this type of project and is a better fit for the school than the PTC. The solar project has an expected net output of more than 1 MW, which means it will qualify for the full 30% credit if the project pays prevailing wages and utilizes registered apprentices. Because San Luis is considered an energy community (10% bonus credit) as well as a low-income community (10% bonus credit), it will qualify for an additional 20% in bonus credits. This brings the total credit value up to 50%.¹² The San Luis retrofit project contractor also ensures that the iron and steel as well as 40% of the cost of the manufactured products used in the project are produced in the United States. The project therefore also qualifies for the 10% domestic content bonus credit, bringing the total credit value up to 60% of project costs.

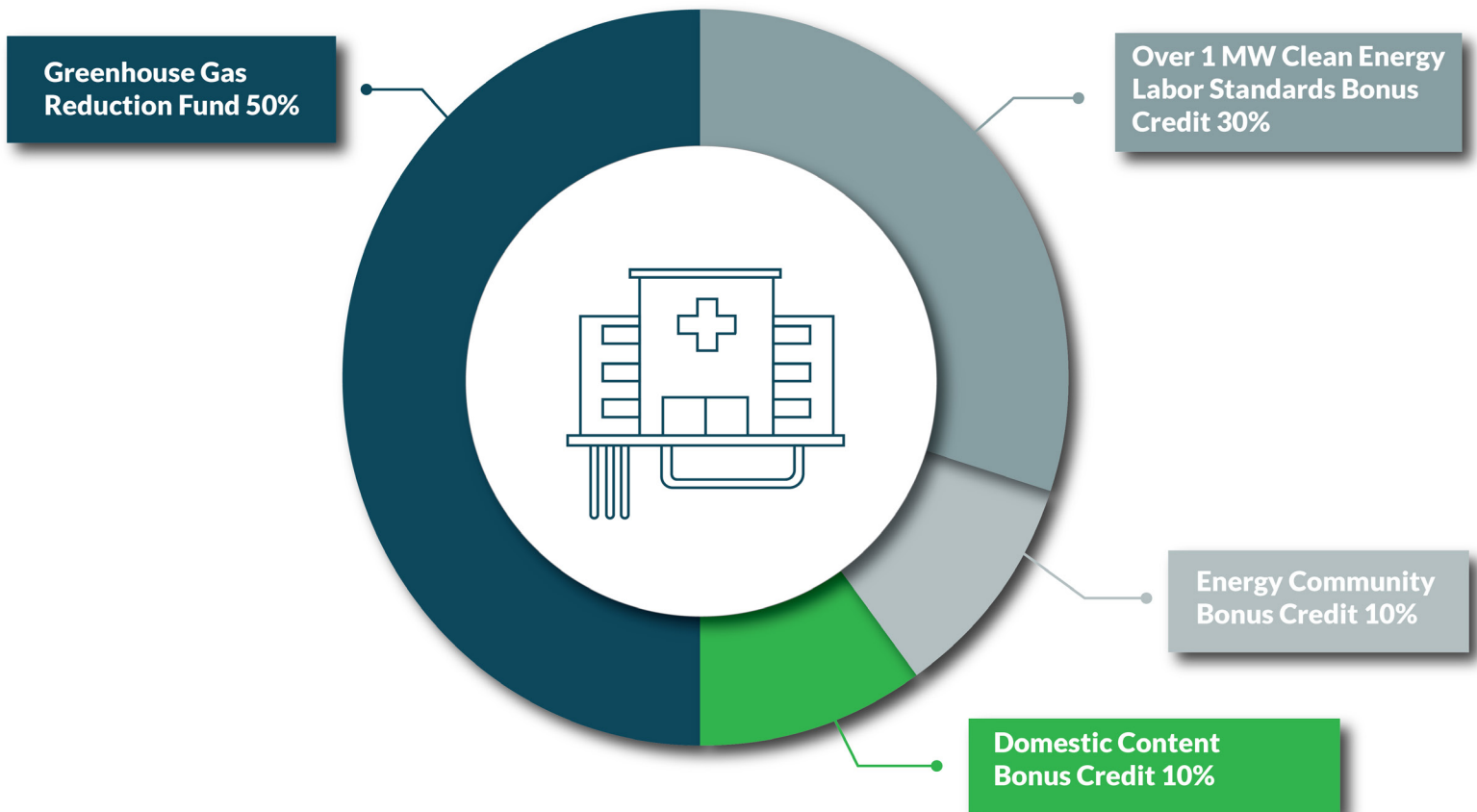
The school is a tax-exempt institution and therefore does not have any tax liability. The school would normally not be able to benefit from a tax credit—which essentially lowers any taxpayer’s tax liability. However, with the new direct pay option and eligibility for tax-exempt institutions, the school can now get 60% of the cost of the project refunded by the IRS essentially in the form of a grant. To pay for the remaining 40% cost of the project, the school can stack the tax credits with financing available through other state or federal programs, such as the Greenhouse Gas Reduction Fund.



2024 Non-Profit Hospital Geothermal Project in Ohio

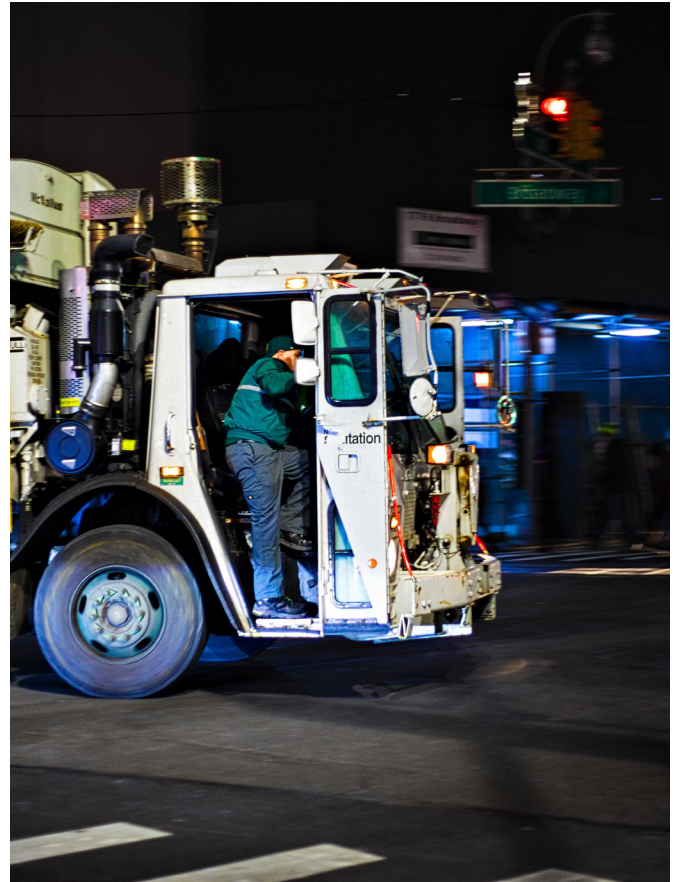
A non-profit hospital in Cleveland, Ohio wants to take advantage of the ITC to install geothermal heat pumps. As a renewable energy project that has a maximum net output of more than 1MW, it would qualify for a 30% bonus credit if the project pays prevailing wage and utilizes registered apprentices. The hospital is located in a census tract in Cleveland that is considered an energy community and qualifies for an additional 10% bonus credit. Because the project is not a solar or wind project it will not qualify for the low-income community bonus credit. The project contractor procures a heat pump that qualifies for an additional 10% bonus credit by ensuring that

any iron and steel and at least 40% of the cost of the heat pump are produced in the United States. Because the non-profit hospital is a tax-exempt entity that has utilized domestic content, the hospital qualifies for direct pay and therefore can expect to receive 50% of total project costs from the IRS through their clean energy bonus tax credits outlined above. The remaining 50% of the project costs could be supplemented through additional federal infrastructure funding, such as the Greenhouse Gas Reduction Fund.



The City of New York's Zero Emission Refuse Truck Project

The New York City Department of Sanitation, which owns its refuse truck fleet for residential garbage collection, wants to take advantage of the 45W Commercial Vehicle Tax Credit to purchase zero emission garbage trucks. The Department of Sanitation is considered a political subdivision, which means that it is eligible for direct pay. The garbage trucks intended for purchase are fully electric, class 7, refuse trucks with a gross weight vehicle rating (GWVR) of 30,000 lbs and a 220 kWh battery. These specifications mean that the Department of Sanitation may receive 30% of the cost of each truck as a direct pay credit from the IRS. While guidance is still being finalized for the Clean Heavy-Duty Vehicle Program at the U.S. Environmental Protection Agency, the remaining 70% of the cost may be supplemented by grants from that program, or other federal infrastructure funding. There are no content requirements attached to the 45W tax credit.



Resources

- [IRS.gov/CleanEnergy](https://www.irs.gov/CleanEnergy)
- [CleanEnergy.gov/DirectPay](https://www.cleaneconomy.gov/DirectPay)
- IRS Proposed Rule on Direct Pay: <https://public-inspection.federalregister.gov/2023-12798.pdf>
- IRS Frequently Asked Questions on Direct Pay: <https://www.irs.gov/credits-deductions/elective-pay-and-transferability-frequently-asked-questions-elective-pay>
- IRS Fact Sheets on Direct Pay: <https://www.irs.gov/credits-deductions/elective-pay-and-transferability>
- [BGA User Guide on Domestic Content for Clean Energy Tax Credits](#)

Endnotes

- 1 BlueGreen Alliance, *Inflation Reduction Act User Guide*, 2022. Available online: <https://www.bluegreenalliance.org/site/summary-of-key-policy-provisions/>
- 2 IRS, Section 6417 Elective Payment of Applicable Credits, 2023. Available online: <https://public-inspection.federalregister.gov/2023-12798.pdf>
- 3 IRS, Elective Pay and Transferability Frequently Asked Questions, 2023. Available online: <https://www.irs.gov/credits-deductions/elective-pay-and-transferability-frequently-asked-questions>
- 4 The IRS has \$10 billion in Section 48C credits to allocate. An application is required. All of the credits are expected to be allocated in two rounds. Concept papers must be filed in a U.S. Department of Energy electronic portal for the first round of \$4 billion in tax credits by noon eastern time on July 31, 2023.
- 5 The Advanced Manufacturing Production Credit (45X) allows for manufacturers to access direct pay for five years once the credit has been elected, meaning they cannot access the credit outside of those five years once accessed.
- 6 BlueGreen Alliance, *Domestic Content Bonus for Clean Energy Tax Credits: A User Guide for Project Developers*, July 2023. Available online: <https://www.bluegreenalliance.org/resources/bluegreen-alliance-domestic-content-user-guide/>
- 7 Department of Treasury, *Fact Sheet: Four Ways the Inflation Reduction Act's Tax Incentives Will Support Building an Equitable Clean Energy Economy*, 2022. Available online: <https://home.treasury.gov/system/files/136/Fact-Sheet-IRA-Equitable-Clean-Energy-Economy.pdf>
- 8 IRS, *Energy Community Bonus Credit Amounts under the Inflation Reduction Act of 2022*, 2023. Available online: <https://www.irs.gov/pub/irs-drop/n-23-29.pdf>
- 9 IRS, *Initial Guidance Establishing Program to Allocate Environmental Justice Solar and Wind Capacity Limitation Under Section 48(e)*, 2023. Available online: <https://www.irs.gov/pub/irs-drop/n-23-17.pdf?source=email>
- 10 White House Council on Environmental Quality, Climate and Economic Justice Screening Tool. Available online: <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>
- 11 IRS, Internal Revenue Bulletin: 2023-10. Available online: https://www.irs.gov/irb/2023-10_IRB#NOT-2023-17
- 12 IRS, Searchable Mapping Tool for Energy Communities. Available online: <https://energycommunities.gov/energy-community-tax-credit-bonus/>



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