

January 2024

Inflation Reduction Act Guide

For Local Governments and Other Tax-Exempt Entities

Solar and Storage Projects



NEW
YORK
STATE

NYSERDA

Table of Contents

1	Introduction	1
2	Funding Opportunities	3
3	Tax Credits Offering Elective Pay	5
	Bonus Tax Credit Requirements	8
	Investment Tax Credit	14
	Clean Electricity Investment Tax Credit	17
	Production Tax Credit	25
	Clean Electricity Production Tax Credit	27
	Advanced Energy Project Credit	31
4	Grants	32
	Solar for All Discretionary Grant	32
5	Loan Forgiveness/Guarantees	47
	Department of Energy's Loan Program Office (LPO)?	48
	Powering Affordable Clean Energy (PACE) Program?	51
6	In Summary	54
	Appendix A: Program Deadlines	56
	Appendix B: Detailed Prevailing Wage & Apprenticeship Requirements	57
	Appendix C: Detailed Low-Income Community Tax Credit Guidance	59
	End Notes	54

1. Introduction

The Inflation Reduction Act (IRA) has expanded funding opportunities for investments in the manufacturing, installation, and production of clean energy technologies and decarbonization projects. It has introduced new tax provisions and expanded existing grant and loan programs to benefit local governments and other tax-exempt entities (also known as **applicable entities**).

Prior to the IRA, the majority of funding opportunities, such as tax credits to offset owed federal taxes, have been targeted toward private developers. Since most local governments and tax-exempt entities do not owe federal taxes, there was no way for them to receive benefits from tax credits without a partnership with a tax-paying organization. For the first time, local governments and other tax-exempt entities can access tax credits directly to reduce the cost of their eligible clean energy projects, such as solar and battery storage projects. The IRA introduced **elective pay**, also known as **direct pay**, which offers a way for local governments and other tax-exempt entities to claim and receive payments from select tax credits, similar to a tax refund.

Table 1. Before the IRA and with the IRA

Before the IRA	With the IRA
Local governments required partnership with tax-paying organizations to access tax credits for clean energy projects.	Local governments can receive payments directly from tax credits offering elective pay for clean energy projects.

Once an applicable entity has pre-registered an eligible clean energy project with the IRS and the project is placed in service, it can claim tax credits offering elective pay through the Investment Tax Credit (ITC)/Clean Electricity Investment Tax Credit (CEITC), the Production Tax Credit (PTC)/Clean Electricity Production Tax Credit (CEPTC), or Advanced Energy Project Credit (AEPC).

The IRA also includes bonus tax credits for eligible clean energy projects that are in low-income communities or energy communities (Figure 6), pay prevailing wages and use registered apprentices, or meet certain domestic content requirements. An applicable entity's clean energy projects can potentially recover up to 70% of the up-front capital costs or generate tax credits from each kilowatt-hour (kWh) of electricity produced during the first 10 years of operations.

Many of these IRA tax credits are temporary. Some tax credits may begin to phase out by 2033 or when U.S. electricity emissions do not exceed 25% of 2022 levels. Local governments and other tax-exempt entities will need to act fast to plan and develop new clean energy projects. The relevant deadlines for each of these tax credits as well as applicable grant and loan programs can be found in Appendix A. This guide will focus on clean energy generation technologies. It is not intended to be a comprehensive overview of the IRA.

Figure 1 | Key Advantages of Elective Pay



The IRA also expands existing grant and loan opportunities for local governments and tax-exempt entities to help fill funding gaps for eligible clean energy projects. These programs include non-refundable grants and more favorable debt financing structures through loans and loan guarantees. These programs can be used in conjunction with tax credits offering elective pay to further reduce the cost of eligible clean energy projects.

This guide highlights the overarching changes introduced by the IRA. It provides a section-by-section overview of different types of funding opportunities, which include credits that offer elective pay, grants, and loan forgiveness/guarantees. Each section contains:

- The specific details of each program
- The requirements and benefits of each program
- A summary of key takeaways

This guide is for informational purposes only. The content does not, and is not intended to, constitute legal or tax advice. Readers should consult with their attorney or tax advisor prior to taking, or refraining from taking, any particular action on the basis of information contained herein.

2. Funding Opportunities

The IRA's expanded funding opportunities for local governments and other tax-exempt entities to reduce the cost of eligible clean energy projects, such as solar and battery storage projects, include:

- Tax credits offering elective pay (projects can claim only one of the following tax credits):
 - ▶ **Investment Tax Credit (ITC) / Clean Electricity Investment Tax Credit (CEITC)**
ITC currently provides a tax credit for investment in clean energy projects. Starting in 2025, CEITC will replace ITC for energy facilities placed in service, and provide a technology-neutral tax credit for investment in facilities that generate clean electricity. Both the ITC and the CEITC can assist in recovery of capital costs by typically 33% and a maximum of 70%.
 - ▶ **Production Tax Credit (PTC) / Clean Electricity Production Tax Credit (CEPTC)**
PTC provides a tax credit for production of electricity from renewable sources. Starting in 2025, CEPTC will replace PTC for renewable source electricity for facilities placed in service. Both the PTC and CEPTC provides a technology-neutral tax credit for production of clean electricity. PTC/CEPTC can assist in recovery of capital costs for each of the first 10 years of clean electricity project operation.
 - ▶ **Advanced Energy Project Credit (AEPC)**
AEPC provides a tax credit for investment in advanced energy projects as defined in the United States Code (26 USC § 48C(c)(1)). AEPC can assist in recovery of capital costs by up to 30%.
- Grants
 - ▶ Competitive grant programs to reduce direct capital costs.
- Loans
 - ▶ Loans with greater eligibility and lower interest rates to reduce debt service costs.
 - ▶ Loan Forgiveness/Guarantee programs to help secure loans and reduce capital costs.

Figure 2. IRA Funding Opportunities

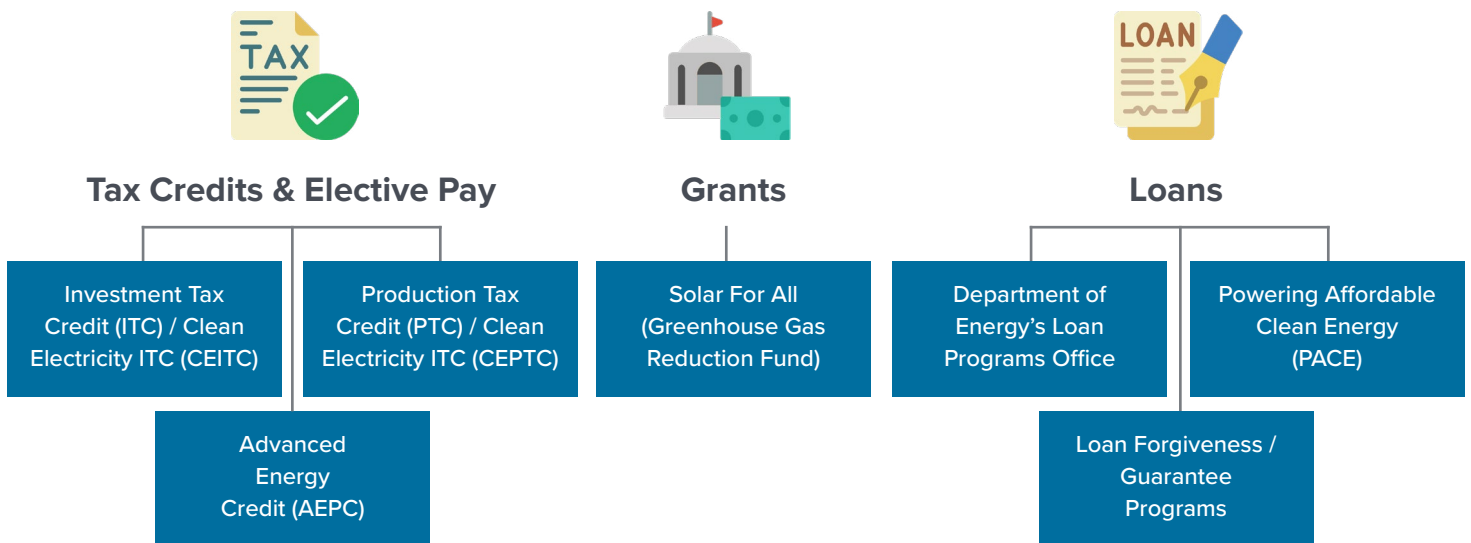
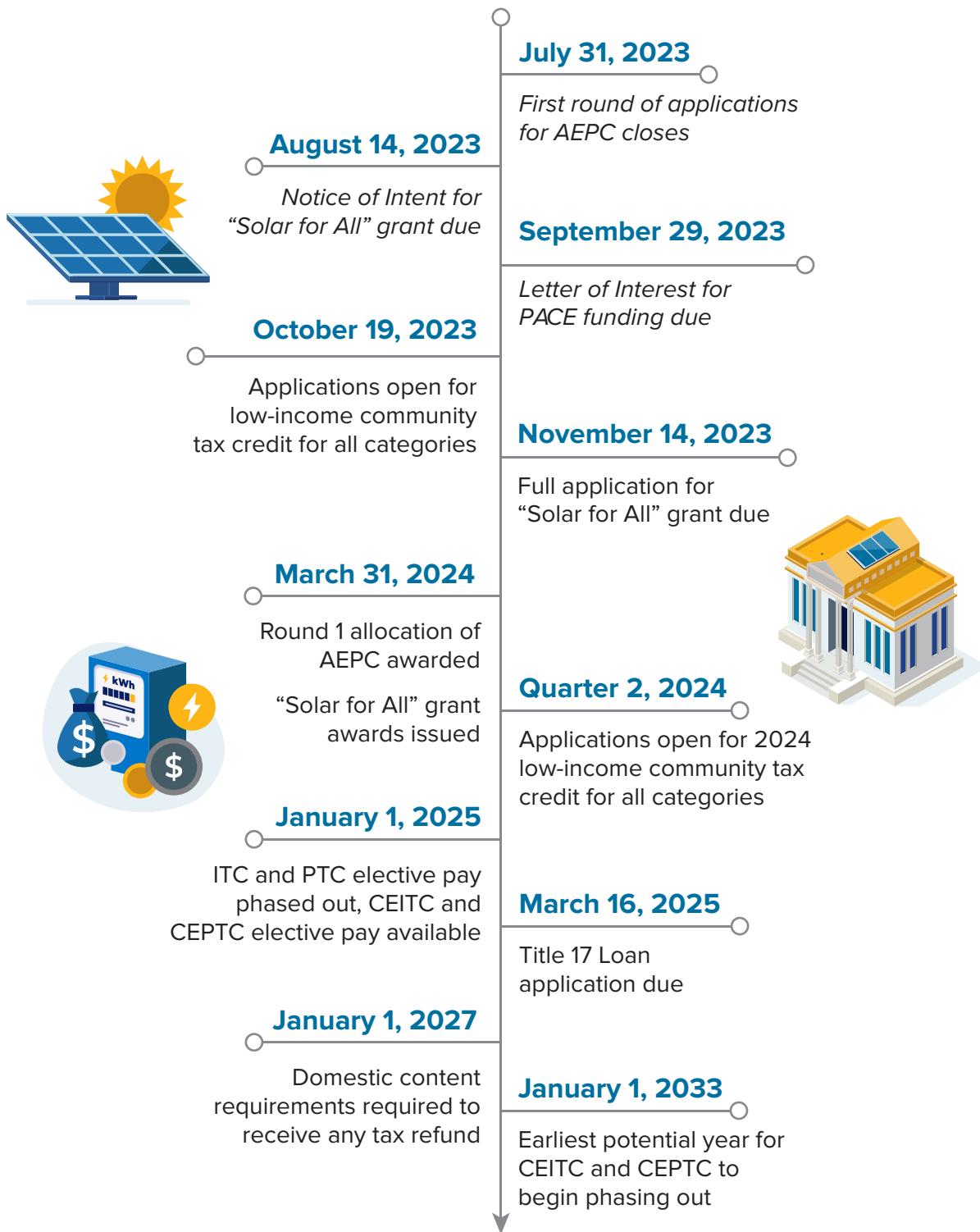


Figure 3 outlines key dates for IRA programs.

Figure 3 | Key Dates for Inflation Reduction Act Programs



These dates are based on federal guidance as of October 2023 and are subject to change. It is recommended to review the latest federal guidance to be informed of any changes. Links to federal guidance for each program is contained within the body of this document.

3. Tax Credits Offering Elective Pay

The IRA provides numerous tax provisions to obtain tax credits related to clean energy investments and production that can help significantly offset eligible projects’ costs. The IRA also expanded eligibility for these tax credits to include local governments and other tax-exempt entities, collectively referred to as “applicable entities” in the legislation. The subsections below cover What is elective pay, and how can it benefit our municipality? and How can our municipality receive elective pay? and provide guidance on applicable entities’ ability to monetize tax credits from solar or battery storage projects.

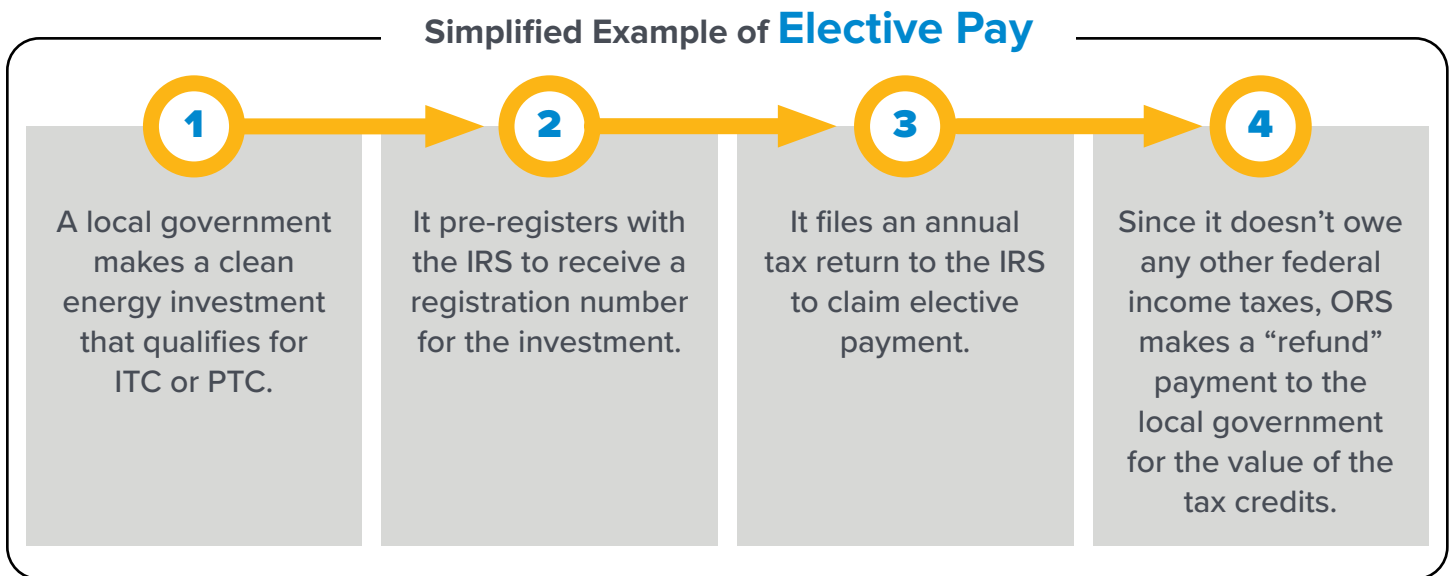
What Is Elective Pay, and How Can It Benefit Our Municipality?

Generally, only entities that owe federal taxes may claim tax credits to reduce their federal tax burden. Elective pay is a way for applicable entities to claim and receive payments from tax credits that would otherwise not be due to them as a result of these entities not owing federal taxes.¹ The IRA includes tax provisions allowing applicable entities to claim tax credits, through elective pay, for eligible clean energy projects. Applicable entities can receive payments equal to the full value of the tax credits, similar to a tax refund, directly to them.² Eligible clean energy projects must meet the requirements for base tax credits offering elective pay identified in Table 2.

Table 2 | Requirements for Base Tax Credits Offering Elective Pay

Solar	Battery Storage
<ul style="list-style-type: none"> • Own a solar facility that generates electricity • Place the solar facility in service • Greenhouse gas (GHG) emissions from electricity generation must be 0 grams of carbon dioxide equivalents per kWh or less³ 	<ul style="list-style-type: none"> • Own a battery storage facility that has a nameplate capacity exceeding 5 kWh • Place the battery storage facility in service • Have an anticipated GHG emission rate of 0 grams of carbon dioxide equivalents (CO₂e) per kWh or less³ • Maintain a GHG emission rate of less than 10 grams of CO₂e per kWh for the first five years after it is placed in service³

Figure 4 | A Simplified Example of Elective Pay



Which Parties Are Eligible for Elective Pay?

Entities eligible for elective pay include tax-exempt organizations, states, and political subdivisions, such as local governments, Indian tribal governments, rural electric co-operatives, U.S. territories and their political subdivisions, and agencies and instrumentalities of state, local, tribal, and a U.S. territorial governments.⁴ Cities, counties, towns, villages, water districts, school districts, economic development agencies, public universities, and hospitals that are agencies of states or political subdivisions are also eligible.

Which Tax Credits Offer Elective Pay?

Over a dozen tax credits offer elective pay.⁵ These include tax credits to target energy generation, manufacturing and carbon capture technologies, and clean vehicles and alternative fuel supplies. Applicable entities can pair decarbonization and fleet electrification opportunities with clean electricity generation technologies to maximize tax credits available to meet future emission targets and net-zero goals. Some of these tax credits are identified in Table 3. ITC/CEITC, PTC/CEPTC, and AEPC tax credits are described in further detail in subsections below. Information on all clean energy tax provisions in the IRA can be found on the White House website.⁶

Table 3 | Tax Credits Offering Elective Pay

Energy Generation	Manufacturing & Carbon Capture	Vehicles & Fuel
ITC/CEITC	AEPC	Commercial Clean Vehicles Credit
Low-Income Communities Bonus Credit	Advanced Manufacturing Production Credit	Alternative Fuel Vehicle Refueling Property Credit
PTC/CEPTC	Carbon Oxide Sequestration Credit	Clean Hydrogen PTC
Zero-Emission Nuclear Power Production Credit		Clean Fuel Production Credit

The IRA also includes bonus tax credits that can be used to increase the total amount of elective pay for projects that are in low-income communities or energy communities, pay prevailing wages and use registered apprentices, or meet certain domestic content requirements. These bonus tax credits and their requirements are described in further detail in the following subsections.

How Can Our Municipality Receive Elective Pay?

The high-level steps required to obtain tax credit following IRS guidance on elective pay published on June 14, 2023, are described below.⁷ Further details are available through provided links to IRS guidance and Department of the Treasury publications. It is critical for municipalities to note their tax year, ensure the project was placed in service during the tax year, and allow for sufficient time to pre-register and complete the following steps to obtain their tax credit refund. The entity should:

- Identify the qualifying solar or battery project to be certain that the desired tax credit claim is applicable to the intended project.
- Complete pre-filing registration with IRS.⁸ This step is required to obtain a registration number for each applicable credit property. This step must be completed in time to file a tax return. Registration numbers must be renewed each year, if the elective pay option selected will provide payouts over numerous years (e.g. production tax credit).
- Satisfy eligibility requirements for the tax return bonus credits per the IRA's requirements.
- File the following forms electronically no later than the tax filing deadline:
 - ▶ Form 990-T;⁹
 - ▶ Form 3800;¹⁰
 - ▶ Applicable source credit form:
 - For the ITC, Form 3468 is required;¹¹
 - For the PTC, Form 8835 is required.¹²

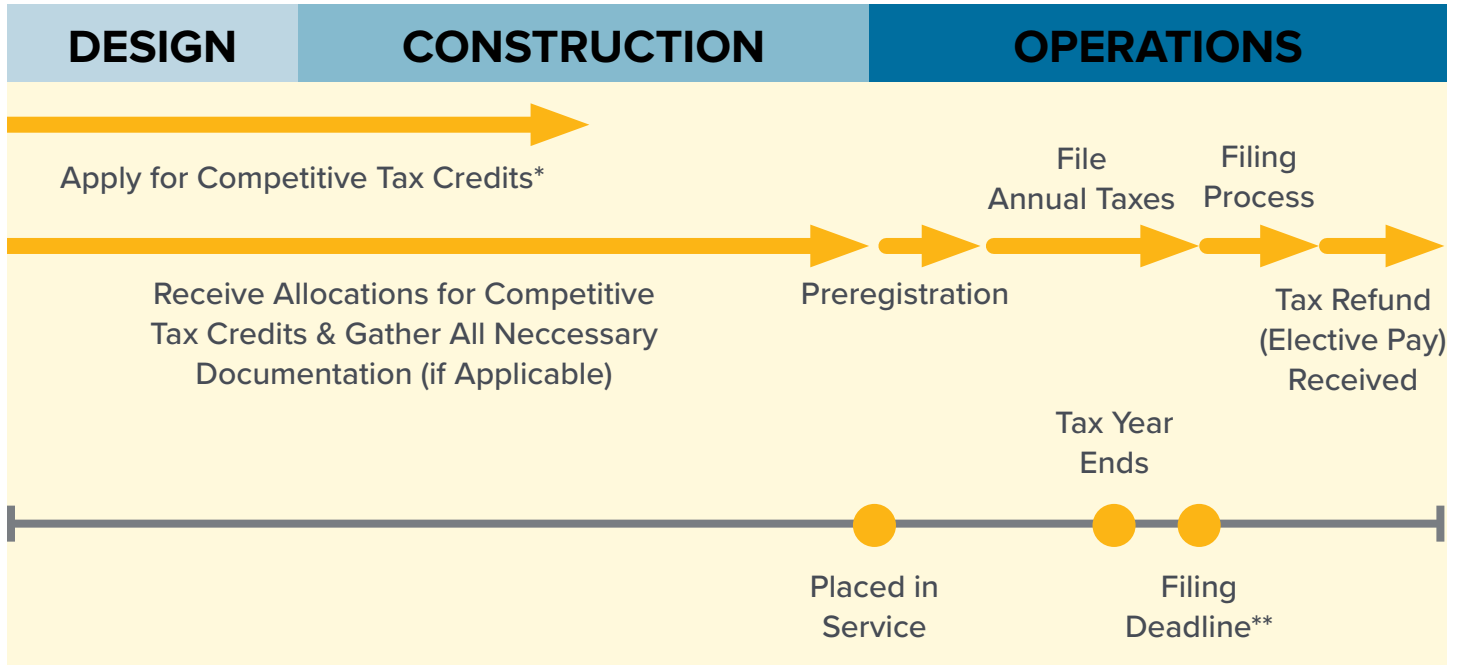
Are There Any Limitations on What Elective Pay Proceeds Can Be Spent on?

Elective pay tax credits must first be applied against any owed federal income taxes. The remainder of the tax credits will be refunded. There is currently no guidance from the IRS indicating how elective pay will be refunded to applicable entities or any limitations on the utilization of the refund.

When Can Our Municipality Expect to Receive Money from Elective Pay?

Once the project is placed in service, the applicable entity must file its tax return. The applicable entity will receive its tax refund once the tax return is processed, after the date the tax return is due. Even if a tax return is filed prior to its due date (or extension), no payments are issued prior to the due date. Figure 5 illustrates the timeline for being awarded tax credits, where applicable, and receiving payment as refund.

Figure 5 | Timeline for Applicable Entities (Including Municipalities) to Receive Funds through Elective Pay



* Competitive tax credits are tax credits that must be applied for due to limitations on how much can be awarded for these programs. Current tax credits that need to be applied for include low-income community tax credit and the advanced energy credit.

** Tax Returns are due 4.5 months after an entity's tax year ends. With an extension, tax returns are due 10.5 months after an entity's tax year ends.

Bonus Tax Credit Requirements

The IRA also restructured tax credits to include stackable bonuses that can be used to maximize the total amount of elective pay an applicable entity can claim for an eligible project. The four bonus tax credits include:

- Prevailing wage and apprenticeship requirements
- Domestic content requirements¹³
- Energy community requirements¹⁴
- Low-income community requirements¹⁵

Each bonus tax credit is described further below, outlining application and reporting requirements.

Prevailing Wage and Apprenticeship Requirements

Projects that are under 1 megawatt (MW) alternating current (AC) of electrical energy are not required to meet the prevailing wage and apprenticeship.

Prevailing Wage Requirements

To qualify for certain increased credits under the IRA, applicable entities generally need to ensure that laborers and mechanics employed to work on clean energy projects, including those employed by contractors and subcontractors, are paid no less than applicable prevailing wage rates.

The prevailing wage is the average wage for comparable employees in a specific occupation for a given geography. The U.S. Department of Labor (U.S. DOL) establishes prevailing wage data for a wide range of occupations and areas that may be used to determine if a given project complies with the prevailing wage requirement.¹⁶ Wage rates are typically designed by county, for a particular type of construction.¹⁷ If an applicable general wage determination is not available, a supplemental wage determination can be requested from the U.S. DOL. Notice 2022-61¹⁸ provides additional instructions on how to obtain a prevailing wage estimate when one is not readily available from the U.S. DOL. The project must also adhere to New York State Department of Labor's (DOL) published prevailing wage by region. Compliance with the IRA and DOL regulations are separate legal requirements.¹⁹

For project construction that takes place at multiple major work sites, different prevailing wages may be in effect for the same type of labor taking place in different geographic areas.

Beyond the construction of the project, prevailing wage requirements remain in place for laborers, mechanics, contractors, or subcontractors to perform any alteration or repairs to the project. However, if the construction of a facility has begun and a new general wage determination is published by the U.S. DOL, the project owner is only required to use the general wage determination in effect when the construction of the facility began. If a contract is changed to include additional, substantial construction, alteration, or repair work that was not within the initial scope of work, then the new prevailing wage published would need to be used. Likewise, for alterations or repairs required after the facility has been placed in service, the wage determination that is in effect when the work begins is the prevailing wage that must be met for the work to satisfy the prevailing wage conditions.

Apprenticeship Requirements

In addition to the prevailing wage requirement, the IRA guidance details a portion of total labor hours that must be carried out by qualified apprentices, depending on when the project begins construction as per Table 4:

Table 4 | Apprenticeship Minimum Labor Share Requirement

Construction Year	Minimum Labor Hour Share
Before 2023	10%
Before 2024	12.5%
2024 or Later	15%

The total labor hours include all hours devoted to the performance of construction, alternation, or repair work by any individual employed, including employees of contractors and subcontractors, but excluding any hours worked by foremen, superintendents, owners, and executive or administrative staff.

In the event that a municipality has requested qualified apprentices from a registered apprenticeship program, and the request has been denied for a reason other than the project failing to meet the standards and requirements of the registered apprenticeship program, the apprenticeship requirement is satisfied. Similarly, should the apprenticeship program not respond to a request within five business days, the apprenticeship requirement is satisfied through the recognition of an effort made in good faith to satisfy these requirements.²⁰

Prevailing wage and apprenticeship requirements do not extend to ordinary maintenance activities designed to maintain and preserve the existing functions of a facility after it is placed in service. Basic maintenance activities, such as mowing under solar panels or reseeding, would not be subject to prevailing wage and apprenticeship requirements. However, if any maintenance activities are taking place prior to the facility being placed in service, they may be subject to the prevailing wage and apprenticeship requirements. Basic maintenance activities exclude any work to improve a facility, restore functionality as a result of inoperability, or adapt the facility for a different use.

What is the benefit of meeting the prevailing wage and apprenticeship requirements?

If the prevailing wage and apprenticeship requirements are met, the base values of each credit increase by a factor of five. Check Figure 7 and Figure 12 for further details on how credits may be increased.

Projects that are under 1 MW AC may be eligible for these credit enhancements without meeting the IRA's prevailing wage and apprenticeship requirements.

How are prevailing wage and apprenticeship requirements tracked?

The IRS has issued proposed guidance outlining IRA credit requirements; the IRS generally recommends following the recordkeeping outlined in the Davis-Bacon Act as proof that the prevailing wage and apprenticeship requirements are satisfied. Required documentation includes payroll records to show hours worked in each classification and wages paid to each laborer and mechanic working on the facility. The project owner is responsible for maintaining all records that encompass direct employees and employees of contractors and subcontractors. Maintaining these records will also help demonstrate that any errors with respect to prevailing wages requirements were not due to intentional disregard, which would help to avoid triggering heftier penalties under the Good Faith Effort Exception. Additional conditions for enhanced credits under the prevailing wage and apprenticeship requirements are included in Appendix B.

The proposed guidance has not been finalized and is subject to change. Public comments on the proposed guidance were due by late October 2023, and a public hearing was scheduled for November 21, 2023. Future guidance may include more specific documentation processes for demonstrating compliance with this bonus tax credit requirements.

How long are the prevailing wage and apprenticeship requirements in effect?

Under the ITC/CEITC, prevailing wage requirements are in place for a five-year period beginning when the project is placed in service; under the PTC/CEPTC, the prevailing wage requirements are in effect for a 10-year period beginning when the project was placed in service.

What happens if our municipality no longer meets the prevailing wage and apprenticeship requirements?

The prevailing wage and apprenticeship requirements are only considered binding if the bonus tax credit is claimed on a tax return. If the credit is claimed, and it is determined that the prevailing wage requirements are not met, the penalties may be incurred. Paying the appropriate penalties will satisfy the prevailing wage and apprenticeship requirements and allow for the bonus credit to still be claimed. Depending on the level of the infraction, the penalties applied may be substantial. Municipalities should consult the IRS guidance on prevailing wages and apprenticeship to understand these penalties and seek guidance of counsel as necessary. The latest guidance is available [here](#).²¹

To remain eligible for increased credits, any penalties must be paid within 180 days of the final determination made by the IRS that the taxpayer has failed to satisfy the prevailing wage requirements. Final determination would come in the form of a notice sent by the IRS.

Penalties may be waived under certain limited circumstances:

- If failures to pay prevailing wages to laborers and mechanics were either small in amount or occurred in a limited number of pay periods
- If, due to payroll errors, the project owner makes the required correction payment (back wages plus interest) by the earlier of 30 days after becoming aware of the error or the date when the tax return claiming the prevailing wage bonus credit is filed and either:
 - The laborer or mechanic is paid below prevailing wage rate for less than 10% of all pay periods of the calendar year which they worked on the project; or
 - The difference between what the laborer or mechanic was paid during the calendar year and the amount required under prevailing wages is less than or equal to 2.5% of the amount required under prevailing wages.

After the application of penalties, if a project still is unable to meet the prevailing wage and apprenticeship requirements, prevailing wage and apprenticeship bonuses earned will be clawed back by the federal government, based on a five-year vesting schedule.

Domestic Content Requirements

What are the domestic content requirements?

An additional bonus credit introduced under the IRA is the domestic content bonus. The bonus credit requires the use of domestically produced steel, iron, and manufactured products in the construction of energy facilities.

What materials does the domestic content requirement apply to?

The domestic content requirement applies to two main categories of materials: steel or iron, and manufactured products.

Steel or Iron

The steel or iron requirement is satisfied if all construction materials used in manufactured project components are mined and manufactured within the United States. This requirement does not apply to steel or iron used in components or subcomponents of other manufactured products. For example, nuts, bolts, screws, or other small, non-structural pieces of equipment are not subject to the steel or iron requirement. Applicable project components for solar and battery storage projects under the steel or iron requirement include but are not limited to steel photovoltaic module racking, pile or ground screws, and steel or iron rebar in foundation.

Manufactured Products

The manufactured products requirement is met if the project components are produced, or are deemed to be produced, in the United States. Unlike the steel or iron requirements, only a percentage of manufactured products need to originate within the United States, as shown in Table 5. Applicable project components for solar and battery storage projects under the manufactured products requirement include but are not limited to photovoltaic trackers, photovoltaic modules, inverters, battery packs, battery containers, and battery housing.

Table 5 | Domestic Content Requirements for Manufactured Components

Year Construction Begins	Domestic Content Required for Manufactured Components	Domestic Content Required for Off-shore Wind Projects
2024	40%	20%
2025	45%	27.5%
2026	50%	35%
2027	55%	45%
2028+	55%	55%

For projects that begin construction before 2025, the required percentage of domestically produced manufactured components is 40%. For projects that begin construction after December 31, 2026, the percentage will grow to 55%. An exemption can be granted by the Secretary of Labor if either:

- The inclusion of domestic content will increase the overall construction cost by more than 25%; or
- Relevant materials are not produced in sufficient and reasonably available quantities or quality in the United States.²²

How are materials determined to be of domestic origin?

Materials can be determined to be of domestic origin either as a Manufactured Product or as a Manufactured Product Component.²³ A Manufactured Product is considered a final good, whereas a Manufactured Product Component is directly incorporated into a Manufactured Product.

A Manufactured Product is considered of domestic origin if all the manufacturing processes take place in the U.S. and all of the Manufactured Product Components are considered of domestic origin.²⁴

Example | *Manufactured Product*

For example, a photovoltaic module is a manufactured product, which can include the following manufactured product components: photovoltaic cells, mounting frame or backrail, glass, encapsulant, backsheet, junction box.

However, a Manufactured Product Component is considered of domestic origin if it is mined, produced, or manufactured in the U.S. Manufactured Product Components mined in the U.S. but manufactured outside of the U.S. are still recognized as being of domestic origin. Manufactured Product Components that are produced or manufactured in the U.S. even if subcomponents do not originate from within the U.S. are still recognized as being of domestic origin.²⁴

Example | *Manufactured Product Component*

Using the previous example, in order for a photovoltaic module to be considered of U.S. origin, all of its product components must be manufactured within the U.S. If at least one of the components are not manufactured within the U.S., then the entire photovoltaic module cannot be considered as originating domestically.

The following are examples of manufactured product components that are considered of domestic origin:

- Photovoltaic cells manufactured in the U.S.
- Mounting frames manufactured outside the U.S. using aluminum mined within the U.S.

How is the domestic content percentage calculated?

The adjusted percentage rule is used to evaluate whether the calculated domestic cost percentage meets or exceeds the percentage of domestic content required. The domestic cost percentage is calculated by dividing the domestic costs of manufactured products by the total cost of manufactured products.

The domestic cost includes the direct materials and/or direct labor costs to manufacture or produce U.S. manufactured products and to produce or acquire U.S. manufactured components that are part of a non-U.S. manufactured product.

The total manufactured products cost includes the direct materials and/or labor costs to produce each applicable project component that is a manufactured product.

What is the benefit of meeting the domestic content requirements?

This additional tax credit is stackable with the ITC/ CEITC or PTC/ CEPTC. For eligible solar and battery storage projects, the available credit may be increased by 10 percentage points. If conditions around prevailing wage and apprenticeship are not met and the project exceeds 1 MW AC of electrical energy, then the domestic content bonus for the ITC is reduced to two percentage points.

Municipalities opting for elective pay will see their overall credit reduced if the domestic content requirements are not met. Projects that have a maximum net output of more than 1 MW AC and do not have an exemption will be subject to reduced tax credits if the project does not meet the domestic content requirements.²⁵

Table 6 | Elective Pay Reductions for Not Meeting Domestic Content

Year Construction Begins	Elective Pay Reduction
Before 2024	-0%
2024	-10%
2025	-15%
2026	-100%

Projects that either have a maximum net output of less than 1 MW AC, meet the domestic content requirements, or have an exemption will receive the full tax credit under either the ITC /CEITC or PTC/ CEPTC.

How are the domestic content requirements tracked?

Per Notice 2023-38, the taxpayer must attach a Domestic Content Certification Statement to Form 8835, the Renewable Electricity Product Credit, or Form 3468 Investment Credit, whichever is being applied for.²⁶ The Domestic Content Certification Statement must detail project information, including the type of project, geographic coordinates, and the date it was placed in service. The IRS Notice further states that the taxpayer must maintain books and records to satisfy recordkeeping requirements to substantiate the domestic content requirements.

Energy Community Bonus Credits

What are the energy bonus credits?

The energy community bonus is a new bonus credit introduced under the IRA. Its provisions include a stackable 10% bonus credit for projects or facilities located in energy communities. The IRS issued Notice 2023-29²⁷ detailing the stipulations and value surrounding the energy siting bonus.

The IRA sets three definitions for energy communities:

- Brownfield sites; or
- A metropolitan statistical area (MSA) or non-metropolitan statistical area (non-MSA) that has:
 - ▶ More than 0.17% of direct employment or greater than 25% of local tax revenues related to the extraction, processing, transport, or storage of coal; and
 - ▶ An unemployment rate at or above the national average for the previous year; or
- A census tract (or directly adjoining census tract) in which:
 - ▶ A coal mine has closed after 1999; or
 - ▶ A coal-fired electric generating unit has been retired after 2009.

A detailed listing of MSAs and non-MSAs for the energy siting requirement is available in Appendix A of Notice 2023-29. MSAs and non-MSAs that meet the fossil fuel employment threshold are detailed in Appendix B of the same notice. MSAs and non-MSAs that meet the coal mine or plant criteria are detailed in Appendix C of the same notice. Based on the 2023 IRS guidance, currently mapped energy communities in New York State are shown in Figure 6. **However, projects in energy communities not identified in the map but that meet energy siting requirements mentioned above and provide project location documentation can still be eligible for the bonus credit.**

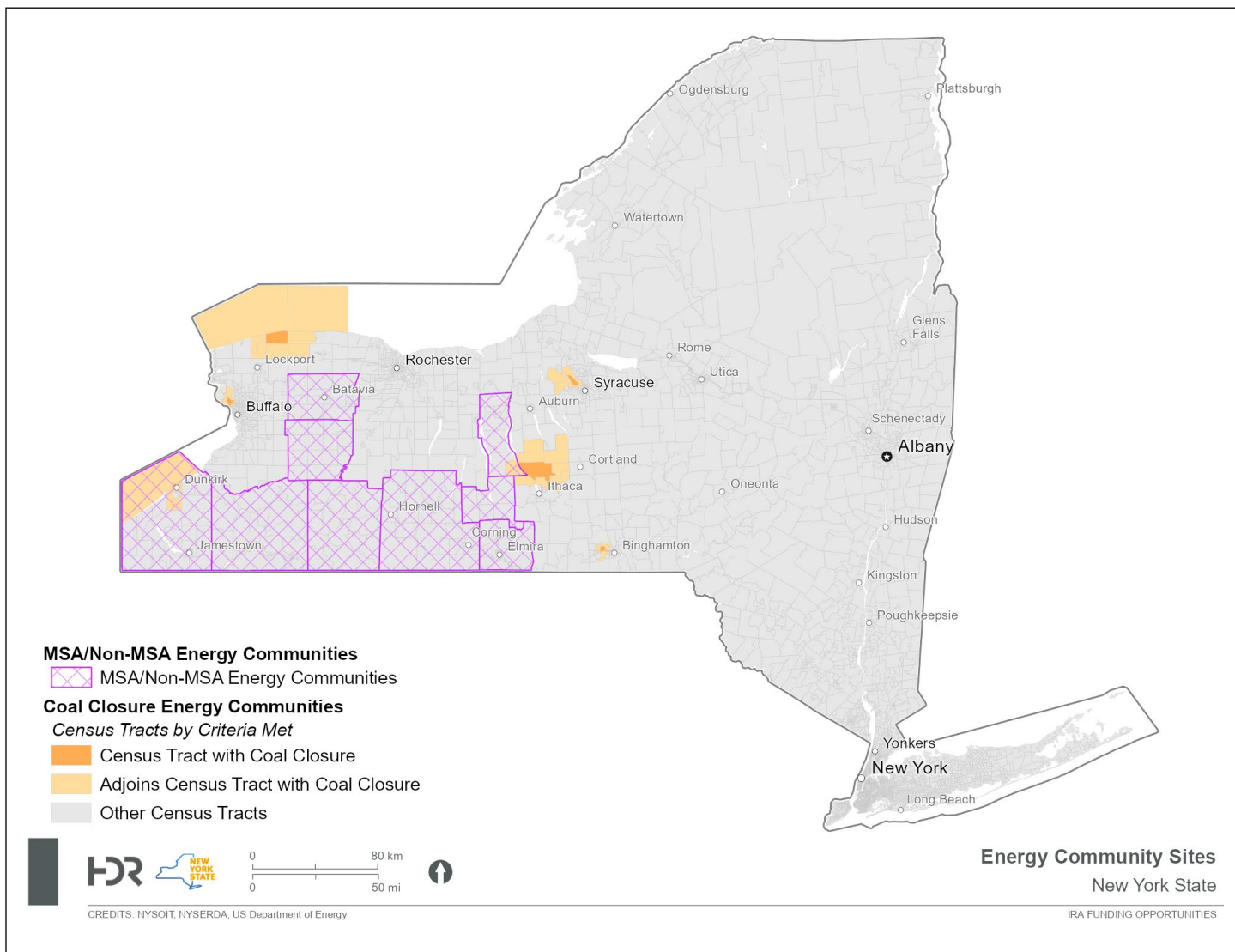
How is a project’s energy community eligibility confirmed?

The qualified facility or project must be located in, or placed in service within, an energy community to qualify for the bonus credit. For the PTC, a project’s eligibility is determined separately for each taxable year of the qualified facility’s 10-year credit period. For the ITC, the determination is made based on the year the facility is placed in service. There are two tests to determine the project’s location status, one of which must be satisfied:

- The nameplate capacity test, under which a project is considered to be within an energy community if 50% or more of the project’s nameplate capacity is within that energy community; or
- The footprint test (for projects that do not have a nameplate capacity, e.g., battery storage), which considers a project to be within an energy community if the project’s square footage is within that energy community.

The taxpayer is required to document the eligibility of the applicable project or facility location using the methods listed above.

Figure 6 | Energy Community Sites in New York



Investment Tax Credit

The Investment Tax Credit (ITC) provides a percentage of a project's eligible capital costs as a federal tax credit. Under the IRA, several key changes were made to the ITC. These changes included expanding the list of eligible technologies, changing the structure of the tax credit, and allowing tax-exempt entities to receive benefits of the tax credits through direct pay eligibility. These new additions to the ITC make it possible for a wider range of entities to receive these incentives, reducing the effective up-front capital cost.

Which Projects Are Eligible?

Eligible solar and battery storage technology includes:

- Equipment using solar energy to generate electricity; to heat, cool or provide hot water for use in a structure; or to provide solar process heat
- Equipment using solar energy to illuminate the inside of a structure using fiber-optic distributed sunlight or electrochromic glass that uses electricity to change its light transmittance properties to heat or cool a structure
- Equipment receiving, storing, and delivering energy for conversion to electricity with a nameplate capacity exceeding 5 kWh
- Equipment that is part of a qualified microgrid (generates between 4 kW to 20 MW of electricity, can operate in connection with the electrical grid as a single controllable entity with respect to the grid, and can operate independently from the grid) and is designed and used to monitor and control energy resources and loads on the microgrid
- Interconnection property for systems with a maximum net output of less than 5 MW AC of electrical energy for the purpose of transmitting or distributing electricity.²⁸

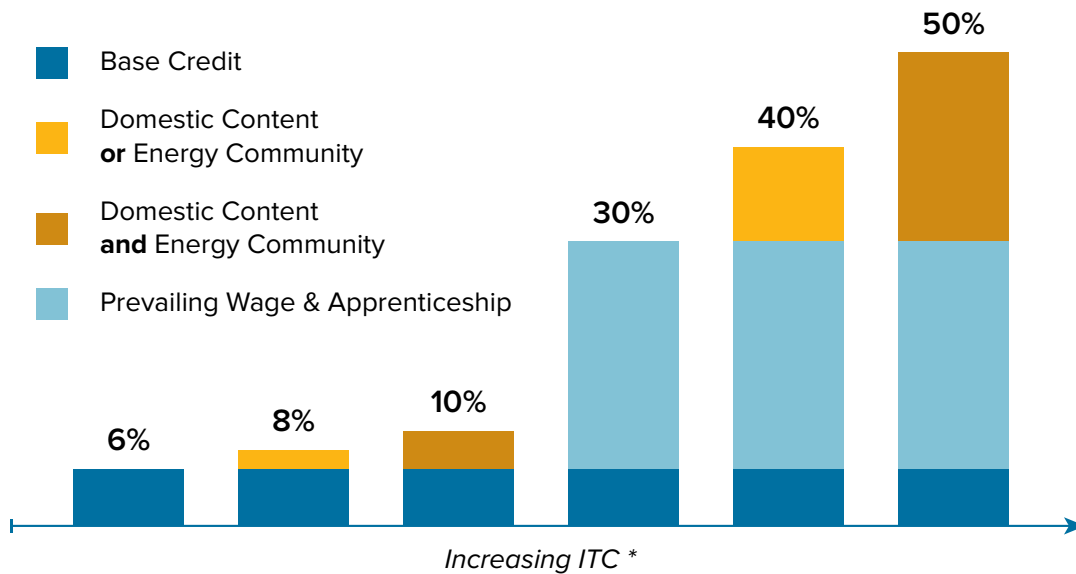
Beginning Jan. 1, 2025, the energy ITC will be replaced with the CEITC.

What Are Benefits of the ITC?

The ITC benefits can range from 6% of eligible project costs to 50% for projects that can maximize their eligibility. Starting at the base credit of 6%, if the project either has a maximum net output of less than 1 MW AC of electrical energy, or the project satisfies the prevailing wage and apprenticeship requirements, the ITC is increased to 30%. The ITC can be increased by another 10 percentage points if it meets the domestic content requirements, as outlined in the Domestic Content Requirements section above. For projects sited within an energy community, as described in the Energy Siting Requirements section, the ITC can also be increased by an additional 10 percentage points. If a project can successfully meet all these requirements, the ITC can provide a credit of up to 50% of eligible project costs. Additional benefits for projects in low-income communities are described under the low-income communities bonus credit program.

Eligible project costs are those associated with physical property integral to the renewable energy system and are eligible for depreciation.

Figure 7 | Stackable ITC



* Percents are of project capital costs. Projects receiving the low-income bonus can receive an additional 10% to 20% credit above the values shown.

How Does the Source of Funding Impact the ITC?

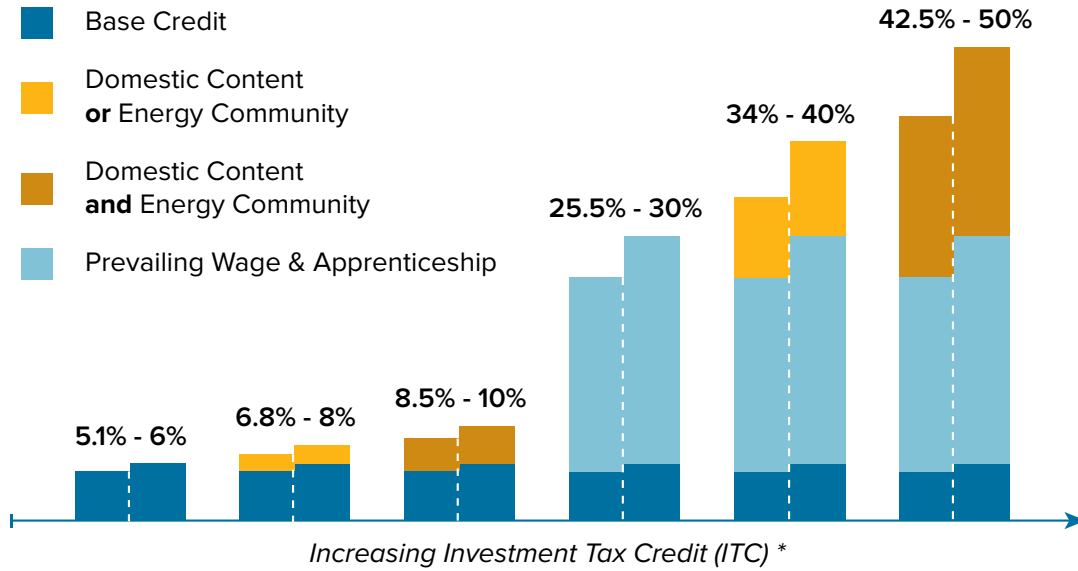
The amount of funding that a project may receive from the ITC is dependent on all sources of project funding. Projects that are funded by any tax-exempt income, such as tax-exempt grants and forgivable loans, may result in a reduction of the ITC credit earned. For projects that began construction after August 16, 2022, and are financed by tax-exempt bonds, such as municipal bonds or other bonds that are not subject to federal income taxes, the ITC credit value will be reduced by the lesser of either:

- 15% of the credit, or
- The portion of the qualifying project that has been financed with tax-exempt debt.²⁹

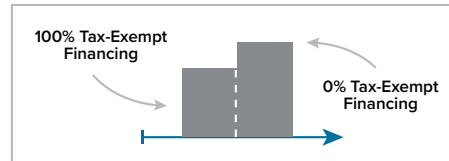
Projects that claim the ITC are ineligible to claim the PTC.

Additionally, the ITC plus the value of any tax-exempt income specifically received for the purpose of acquiring or constructing a qualifying property cannot exceed the total capital cost of the project. If it does, the ITC will be reduced to be the difference between the total capital cost of the project and the tax-exempt income specifically received for the purpose of acquiring or constructing a qualifying property.³⁰

Figure 8 | ITC with Tax-Exempt Financing



* Projects receiving the low-income bonus can receive an additional 10% to 20% credit above the values shown.



What Impact Does the ITC Have on an Eligible Project?

The ITC can reduce the project's effective capital cost to the municipality by up to 50%. The ITC also represents an opportunity to receive payment back early in the project lifecycle, which can improve the net cash flow of the municipality.

How Can Our Municipality Receive the ITC?

Projects must begin construction prior to January 1, 2025, to be eligible for the ITC, after which the project would instead be eligible for the CEITC. Identifying the year that a project begins construction is defined by one of the following criteria:

- Starting physical work of a significant nature, or
- Incurring 5% or more of the total cost of the facility³¹

Clean Electricity Investment Tax Credit

The CEITC will replace the ITC for infrastructure placed in service after December 31, 2024, offering the same financial incentives for projects that the ITC currently does.

Unlike the ITC, this program does not specify particular eligible technologies; instead, projects must be anticipated to generate zero or fewer emissions from electricity generation and can still include battery storage technologies. Facilities claiming the CEITC are ineligible to claim the PTC, CEPTC, or AEPC offered through the IRA.³²

Table 7 | Differences between the ITC and the CEITC

ITC	CEITC
Construction starts before Jan. 1, 2025	Construction starts after Dec. 31, 2024
Must be solar, fuel cell, combined heat & power, small wind, waste energy recovery, biogas, battery storage, or microgrid controllers	Can be any technology
No GHG emission targets	Must be anticipated to have 0 GHG emissions; once in operation, must have less than 10 g carbon dioxide equivalents per kWh
Receive tax credits up to 50% of eligible capital costs	Receive tax credits up to 50% of eligible capital costs

If a facility receiving the CEITC is determined to have an emissions rate exceeding 10 grams of CO₂e per kWh, the facility will no longer be eligible for the ITC and may be subject to having a portion of the credit recaptured based on a five-year vesting period.

The CEITC will begin phasing out at the latter of either 2032 or the year which U.S. GHG emissions from electricity are 25% or lower of the 2022 emissions levels. Once the phase-out begins, any eligible projects must begin construction within three years to claim any credit. Projects that begin construction during the first calendar year of the phase-out schedule are still eligible to receive the full tax credit. Projects that begin construction during the second calendar year of the phase-out schedule are eligible to receive 75% of the credit. Projects that begin construction during the third calendar year of the phase-out schedule are eligible to receive 50% of the credit. Under the current guidance, after the third calendar year of the phase-out schedule, any new projects beginning construction will no longer receive any tax credits under this program.

Further guidance on the implementation of the CEITC is anticipated to be issued prior to January 1, 2025.

Bonus Credit for Facilities in Low-Income Communities

The ITC and CEITC offer bonus credits of 10% to 20% for eligible projects serving disadvantaged populations and communities with environmental justice concerns. The stated program goals³³ include:

- Increase the adoption of and access to renewable energy facilities in low-income communities and communities with environmental justice concerns.
- Encourage new market participants.
- Provide social and economic benefits to individuals and communities that have been historically overburdened with pollution, adverse health or environmental effects, and marginalized from economic opportunities.

What Projects Are Eligible for the Low-Income Community Bonus Credit?

Qualified solar and wind facilities for low-income communities include any facility that generates electricity, the construction of which begins before January 1, 2025,³⁴ which has a maximum net output of less than 5 MW AC³⁵ and meets one of the four facility categories described on the following page.

Battery storage, installed in connection with solar or wind that is eligible for the low-income community bonus credit, is also eligible for the bonus credit. If the battery storage technology power rating (kW) is less than twice the capacity rating (kW) of the solar facility, it must be charged at least 50% by the solar or wind project in order to be eligible. After Jan. 1, 2025, eligible facilities are expected to include any facility that does not generate electricity from combustion or gasification.³⁶ Projects placed in service prior to being awarded an allocation are ineligible to receive the credit, as described in further detail on the following page.

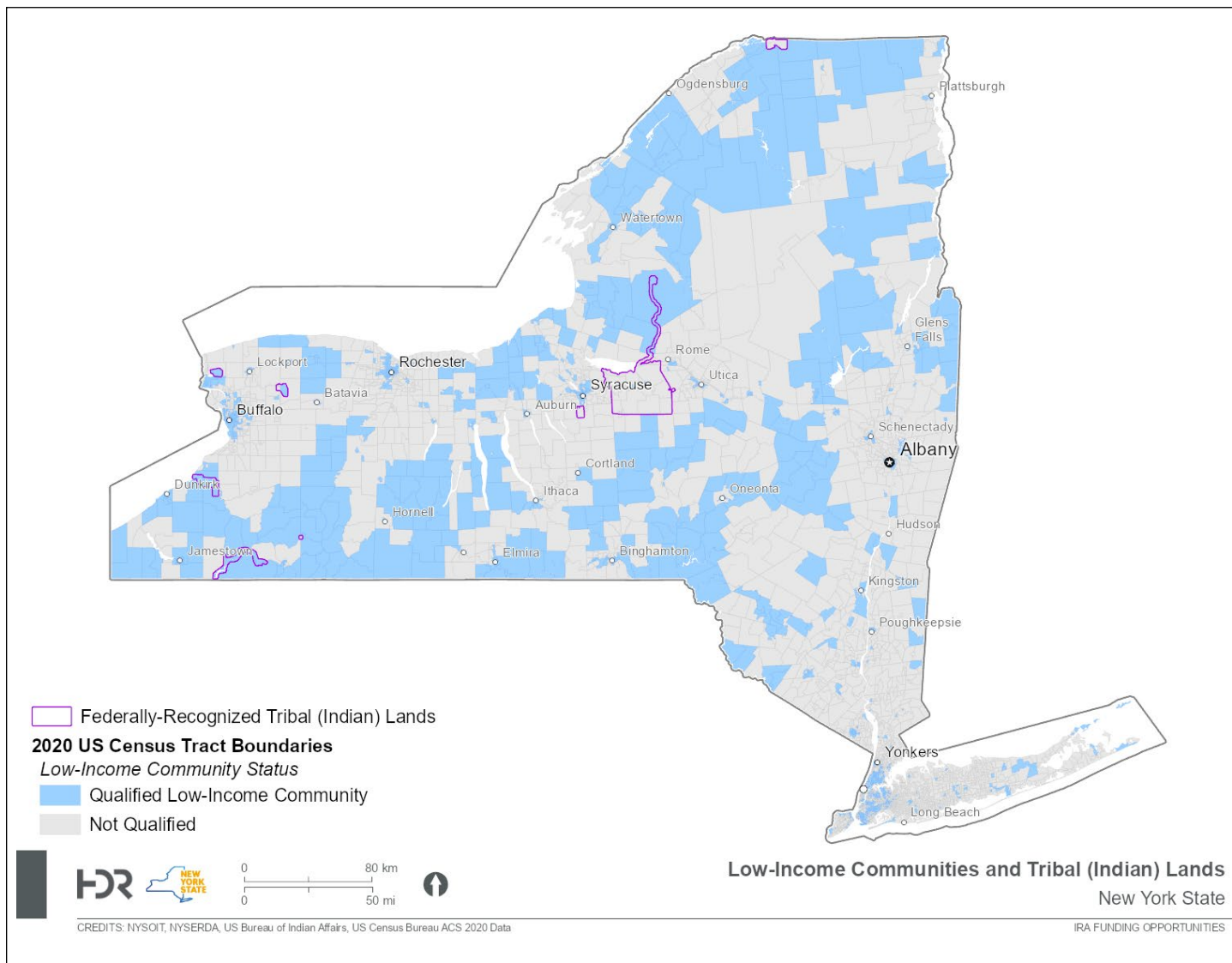
The four categories of eligibility for low-income communities are the following:

- **Category 1:** Located in lower-income communities | low-income projects must be sited in a census area where the poverty rate is at least 20%, or where the median family income does not exceed 80% of the statewide median family income.
- **Category 2:** Located on tribal (Indian) land | any Indian tribe, band, nation, or other organized group or community that is recognized as eligible for the special programs and services provided by the United States to tribes (Indians) because of their status.³⁷
- **Category 3:** Qualified low-income residential building project | a facility installed on the same parcel or on an adjacent parcel of land that has a residential rental building that participates in an affordable housing program, and the financial benefits of the electricity produced by such facility are allocated equitably among the occupants of the dwelling units of the building.³⁸
- **Category 4:** Qualified low-income economic benefit project | at least 50% of the financial benefits of the electricity produced by such facility are provided to households with income of less than 200% of the poverty line or 80% of the area’s median gross income.³⁹

Like the energy community requirements, the project’s eligibility for Categories 1 and 2 is determined by whether the facility has at least 50% of its nameplate capacity (excluding battery storage technology) in qualifying areas.

Figure 9 shows the census parcels that would be considered either low-income communities or tribal lands.

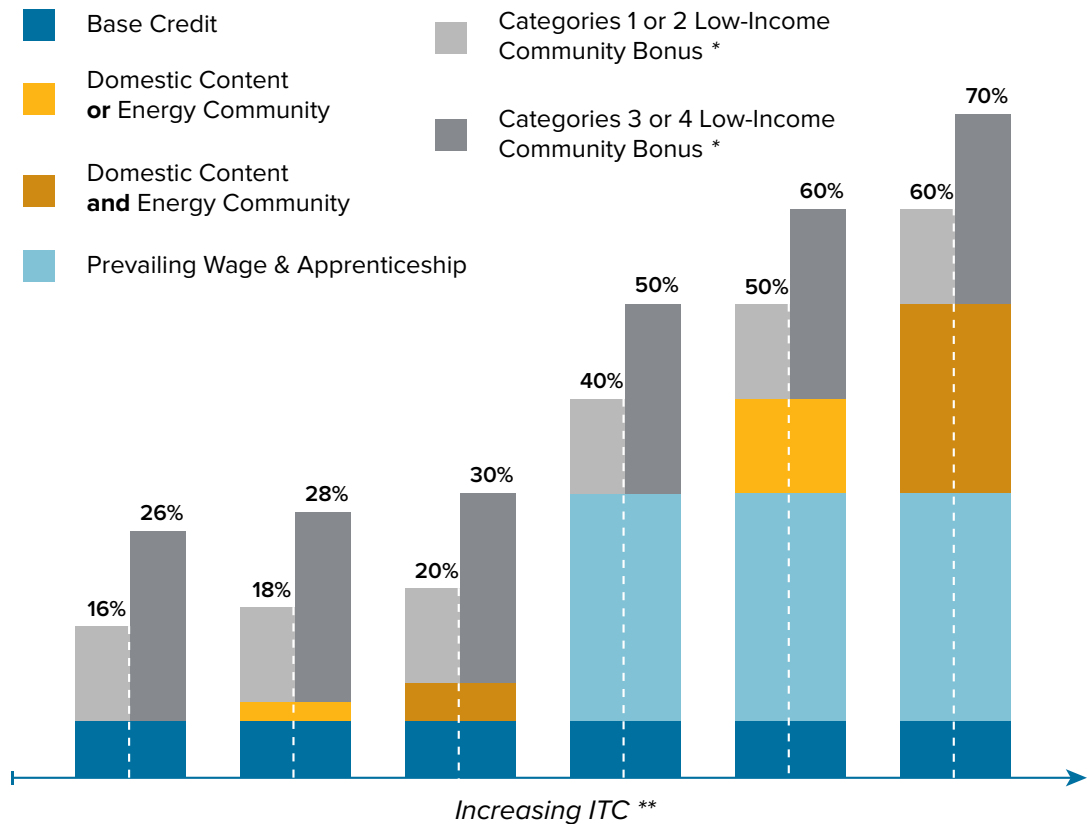
Figure 9 | Low-Income Community and Tribal Land Sites in New York⁴⁰



What Is the Benefit of the Low-Income Communities Bonus Credit?

Projects that are awarded the low-income communities bonus credit will receive a bonus 10% or 20% tax credit. If the project meets the other requirements for prevailing wages and apprenticeships, domestic content, and energy community, this can effectively reduce the up-front project costs by up to 70%, as shown in Figure 10. The bonus directly attributable to the low-income community tax credit will be based on the category awarded and the project funding source.

Figure 10 | Low-Income Communities Bonus Credit



* Projects must go through an application process and be selected to be awarded a low-income community bonus.
 ** Percents are of project capital costs.

What Is the Process for Applying for the Low-Income Communities Bonus Credit?

There is a limit of 1.8 gigawatts (GW) of direct current (DC) capacity for each calendar year, divided across the four categories as shown in Table 8, as set forth by the U.S. Department of Energy (DOE).⁴¹

For 2023 allocations, applications for all four categories opened October 19, 2023, and remain open through early 2024. Applications for 2024 are anticipated to open in the second quarter of 2024. Applicants may submit only one application per facility for the allocation year through the DOE portal. Any applications submitted within the 30-day period will be treated as submitted on the same date and at the same time.

After the initial 30-day window, applications are considered in the order received based on capacity limitation available. Applications received in the rolling window will be reviewed only once all applications submitted within the first 30 days have been reviewed. Basic information required for all projects includes:

- Applicant’s name
- Federal taxpayer identification number
- Applicant’s address
- Name and telephone number of the person submitting the application on behalf of the applicant
- For solar facilities, the expected maximum net output in AC and nameplate capacity in direct current
- For wind facilities, the expected net output of the facility in AC
- Facility location, including street address and coordinates

Detailed program guidance and resources can be found on the DOE website.⁴²

The total capacity available is set at 1.8 GW of DC and, therefore, the capacity allocations for successful projects will be awarded in DC. Solar projects are awarded their nameplate capacity, measured in DC. Though the nameplate capacity of wind projects is measured in AC, wind projects will receive their capacity awards in DC that is equal to their AC nameplate capacity. Projects that fall under Categories 1 or 2 will be considered for a 10% credit increase. Projects that fall under Categories 3 or 4 will be considered for a 20% credit increase.

Table 8 | Capacity Limitation Allocation by Low-Income Community Type

Category (Tax Credit Bonus Increase)	2023 Capacity Allocation
Category 1: Located in Lower-Income Communities (10%)	700 MW
Category 2: Located on Indian Land (10%)	200 MW
Category 3: Qualified Low-Income Residential Building Project (20%)	200 MW
Category 4: Qualified Low-Income Economic Benefit Project (20%)	700 MW

In addition, there are specific sub-allocations identified for Category 1 applications. The table below shows sub-allocations for each of the categories for the 2023 process. These are subject to change in future years.

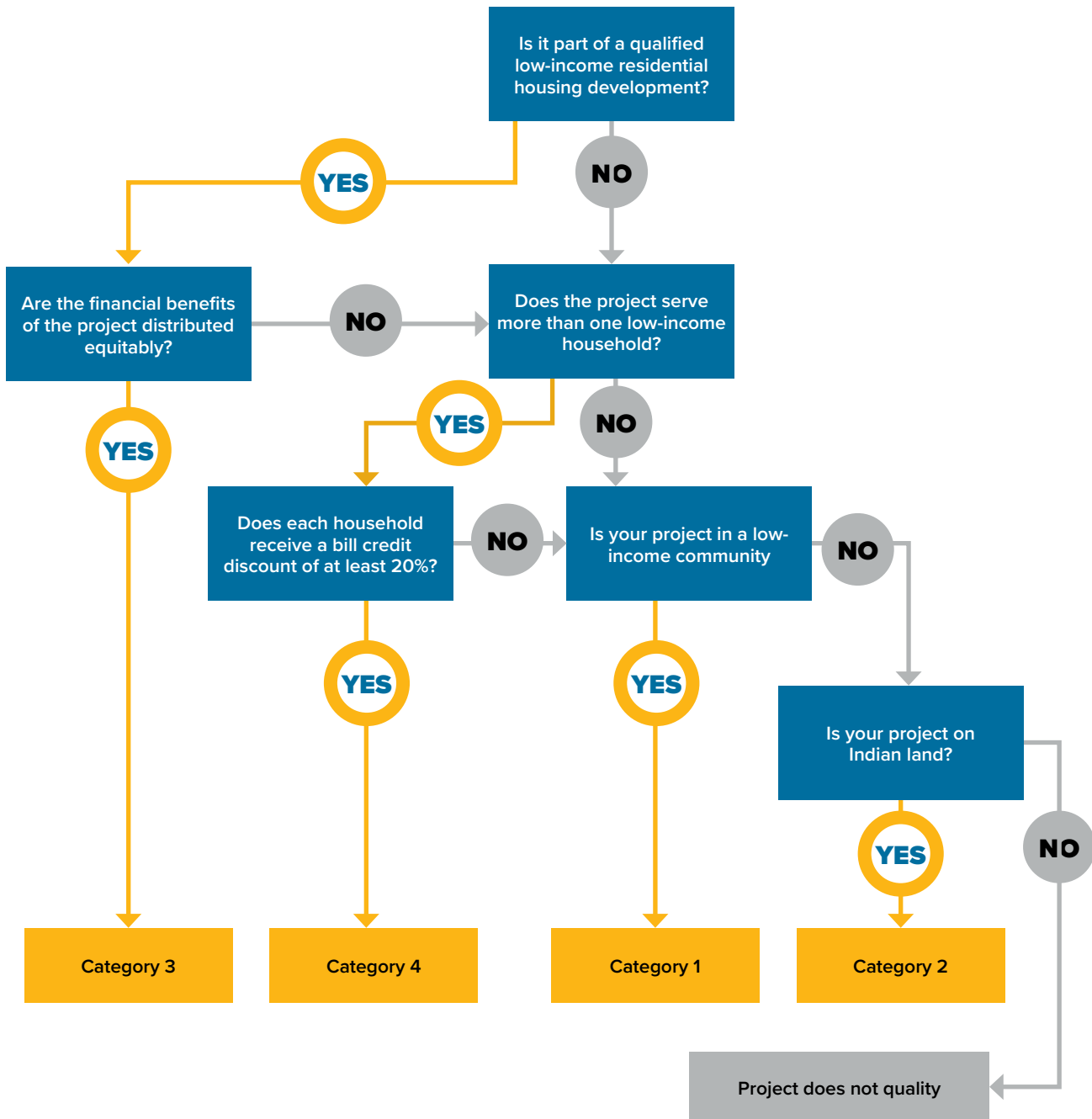
Table 9 | Category 1 Capacity Limitation Sub-Allocations

Sub-Allocation	2023 Capacity Allocation
Residential Behind the Meter Facilities	490 MW
Front of the Meter Facilities & Non-Residential Behind the Meter Facilities	210 MW
Total Category 1 Allocations	700 MW

Which Category Should I Apply For?

The following chart outlines how to identify which category a project is eligible for. Requirements for each category are explained in greater detail below.

Figure 11 | Low-Income Communities Bonus Credit Category Eligibility Flowchart



What are the eligibility requirements for Category 1?

Category 1 requires projects to be located in low-income communities. Low-income communities are defined as census tracts with a poverty rate of at least 20% or where the median family income does not exceed 80% of the area's median family income. For tracts located within metropolitan areas, the median family income must not exceed the greater of 80% of the statewide median family income or 80% of the metropolitan area median family income. For tracts outside of metropolitan areas, the median family income must not exceed 80% of the statewide median family income.

The poverty rate for a census tract is typically defined based on the 2011-2015 American Community Survey (ACS) low-income community data, as per the New Markets Tax Credit program. If updated data is released for the New Markets Tax Credit program, the poverty rate can either be based on the 2011-2015 ACS low-income community data or the updated ACS low-income community data if the newly released data is less than a year old. After the data has been out for more than a year, the updated ACS low-income community data must be used.

What are the eligibility requirements for Category 2?

To qualify under Category 2 of the low-income community bonus credit, the project must be located on tribal (Indian) land. Tribal (Indian) land is defined as any land located within the boundaries of an Indian reservation, pueblo, or rancharia, or any land located in a census tract in which the majority of residents are Indigenous people or are enrolled members of a federally recognized tribe or village.

What are the eligibility requirements for Category 3?

Category 3 requires a project to be part of a qualified low-income residential building and for at least 50% of the financial benefits of the energy produced to be distributed equitably among the low-income building occupants.

Low-income residential building projects include rental buildings that participate in a covered housing program, a housing assistance program administered by the Department of Agriculture, a housing program administered by a tribally designated housing entity, or other affordable housing programs. A full list of housing programs can be found on the DOE's website.⁴³

The financial benefits of energy produced by the facility is the greater of either 25% of the gross financial value or the total net financial value of the project.⁴⁴ The gross financial value is the sum of self-consumed kWh produced by the solar or wind facility multiplied by the building's metered volumetric price of electricity, the total exported kWh multiplied by the compensate rate for exported electricity, and the sale of any additional attributes from the facility's production, such as renewable energy credits, if not included in the metered price of electricity or the export compensation rate.

Gross Financial Value

*Solar Generation kWh * Volumetric Price*

*+ Exported kWh * Exported Electricity Price*

+ Renewable Energy Credits

The net financial value is the gross financial value less either the levelized cost over the useful life of the facility for the system, if directly owned, or less payments made as part of a power purchase agreement, if owned by a third party.

Determining the equitable allocation of financial benefits depends on how the benefits are distributed to the occupants. If benefits are delivered through utility bill savings, the utility bill savings must be distributed in one of two ways: either the benefits should be distributed as equal shares to each dwelling unit with designated participating low-income occupants; or, benefits should be distributed as proportional shares based on either the square footage of each participating low-income dwelling unit or the number of occupants in each participating low-income dwelling unit. Occupants can choose to opt out of utility bill savings, but at least 50% of the low-income occupants in the building must participate and receive utility bill savings to be eligible under this method. If the benefits are delivered through some other means, the benefits must be distributed based on one of the methods outlined in the Department of Housing and Urban Development's guidance on the Treatment of Solar Benefits in Master-Metered Building⁴⁵ or other relevant guidance from agencies overseeing the specific housing program for the property.

What are the eligibility requirements for Category 4?

Category 4 facilities are qualified low-income economic benefit projects where multiple low-income households are served by the project, with at least 50% of the facility's output in kilowatts assigned to qualifying low-income households.

Qualified low-income households are defined as households with income of less than 200% of the poverty line or 80% of the area's median gross income. Household income limits can be found through the Department of Housing and Urban Development.⁴⁶ Each qualified household must be provided with a bill credit discount rate of at least 20%.

The bill credit discount rate each household is provided is a measure that evaluates the net financial benefit, less any payments for participating in the community program. The bill credit discount rate is calculated by taking all financial benefits provided to the household annually, subtracting all payments made throughout the year by the household to the facility owner or related third parties as a condition of receiving the financial benefit. The net value is then divided by the annual financial benefit received by the household.⁴⁷

If there is minimal or no cost to participate in a community program, the annual financial benefit should instead be divided by the total value of the annual electricity produced by the facility that is assigned to the qualifying household, as measured by the utility, independent system operator, or other electricity off-taker.

Applicants must submit documentation when placing the qualified solar or wind facility in service that identifies each household, the output from the facility allocated to each household, and the method of income verification used for each household. The low-income status of a household is determined when the household enrolls in the subscription program and does not need to be re-verified. Acceptable methods of income verification include the following:

- Obtain an award letter or other written documentation within the last 12 months that an individual in the household is currently approved for assistance from or participation in a needs-based federal, State, tribal, or utility program with income limits at or below the qualifying income level required. State agencies can also provide verification if the household participates in a State program with income limits at or below the qualifying income level required.
- Paystubs, federal or State tax returns, or income verification through crediting agencies and commercial data sources can be used to establish if a household qualifies under the Category 4 criteria.

Documentation requirements for Low-Income Community Bonus Tax Credit applications for Categories 1-4 are provided in Appendix C.

How Will Projects be Evaluated for the Low-Income Communities Bonus Credit?

Projects are evaluated based on when applications are submitted, whether they qualify under the category applied for, and whether projects meet the Additional Selection Criteria.⁴⁸ These criteria are designed to focus on facilities that are owned or developed by community-based organizations and mission-driven entities, have an impact on encouraging new market participants, provide substantial benefits to low-income communities and individuals marginalized from economic opportunities, and have a higher degree of commercial readiness.

The specific Additional Selection Criteria are the ownership criteria and the geographic criteria. The ownership criteria are met if a facility is owned by a:

- Tribal enterprise
- Qualified tax-exempt entity⁴⁹
- State, local, or Indian tribal government
- Renewable energy cooperative
- Qualified renewable energy company⁴²

The geographic criteria, which only applies to Categories 1, 3, and 4, is met if a facility is in a county that is considered in "persistent poverty," meaning 20% or more of residents have experienced high rates of poverty over the last 30 years. This measure is consistent with the U.S. Department of Agriculture and, for the 2023 program year, incorporates poverty estimates from the 1980, 1990, and 2000 censuses and the 2007-2011 ACS five-year average. As long as the persistent poverty definition is met at the time of the application and the location of the facility does not change, the community has met these criteria for the duration of the five-year recapture (vesting) period.

Alternatively, if the facility is in a census tract that is designated in the Climate and Economic Justice Screening Tool (CEJST)⁵⁰ as disadvantaged and meets either of the following requirements, the geographic criteria will be met:

- Census tract is in the 90th or higher percentile for energy cost and is in the 65th or higher percentile for low income
- Census tract is in the 90th or higher percentile for the level of particulate matter (PM2.5) exposure and is in the 65th or higher percentile for low income

Projects that meet the Additional Selection Criteria will be prioritized. In addition, 50% of the capacity limitation in each category is reserved for wind or solar facilities that meet the ownership and geographic criteria. If any category is oversubscribed, a lottery will be used to determine the order of review of applications claiming to meet the Additional Selection Criteria.

Multiple solar or wind properties or facilities that are operated as part of a single project may be aggregated and treated as a single facility for the purposes of the low-income community bonus credit program. Factors that can influence this decision include whether the facilities:

- Are owned by a single legal entity
- Are constructed on adjacent lands
- Are described under a single common power purchase agreement
- Have a common interconnection
- Share a common substation
- Are described in one common environmental or other regulatory permits
- Were constructed as part of a single master construction contract
- Were financed under the same loan agreement

What Happens If the Census Tract Is No Longer a Low-Income Community after Applying for the Low-Income Communities Bonus Credit?

Applicants that satisfy the definition of low-income community at the time of application have met the definition of low-income community as long as the project location does not move.⁵¹

What Are Other Key Definitions to Understand for the Low-Income Communities Bonus Credit?

Behind-the-meter facility

To qualify as a behind-the-meter (BTM) solar facility, the primary purpose of the project must be to provide electricity used on site. The project must be connected on the customer side of a utility service meter before connecting to the electric grid, and there must be an electrical connection between the facility and the panelboard or sub-panelboard on the site of the facility. In addition, projects that are not connected to the grid, and are built with the primary purpose of serving the electricity needs of the owner, also qualify as behind-the-meter facilities.

Residential behind-the-meter facility

Residential BTM facilities generate electricity for use in a single family or multi-family dwelling unit that is used as a residence. To qualify as a residential behind-the-meter-facility for Category 1, the location must not qualify as a low-income residential housing described in Category 3.

Front-of-the-meter facility

A project is considered an eligible front-of-the-meter (FTM) facility if it is connected directly to the grid, and it primarily generates electricity to be used off-site or if it is a facility that is not defined as a the BTM facility. For Category 4 facilities, a facility is considered FTM if it exports 50% or more of its annual electricity generation to the broader grid.

Qualified renewable energy company

A qualified renewable energy company is an entity that serves low-income communities and provides pathways for the adoption of clean energy by low-income households. In addition, all of the following criteria must be met:

- At least 51% of the company's equity interests must be owned and controlled by either one or more individuals, a Community Development Corporation, an agricultural or horticultural cooperative, a tribal (Indian) government, an Alaska Native corporation, or a Native Hawaiian organization and has less than 10 full-time equivalent employees.
- The company earns less than \$20 million in annual gross receipts in the previous calendar year.
- The company first installed or operated a qualified solar or wind facility two or more years prior to the date of the application or has provided solar services as a contractor or subcontractor to qualified solar or wind facilities with at least 100 kW of cumulative nameplate capacity located in one or more low-income communities.

Qualified tax-exempt entity

Qualified tax-exempt entities include organizations that are exempt from federal taxes. Specifically, these include religious, charitable, educational, scientific, or literary organizations, any State or Tribal (Indian) government, political subdivisions, agencies or instrumentalities of any State or Tribal (Indian) government, or any cooperative electric corporation that is providing electric energy to people in rural areas.

Production Tax Credit

The Production Tax Credit (PTC) is a tax credit per kWh for electricity generated by solar and other qualifying technologies for the first 10 years of a system's operation. It reduces the federal income tax liability and is adjusted annually for inflation. Projects that elect to receive the PTC are not eligible for the ITC. For systems placed in service on or after January 1, 2025, the Clean Electricity PTC (CEPTC) will replace the PTC.

Which Projects Are Eligible?

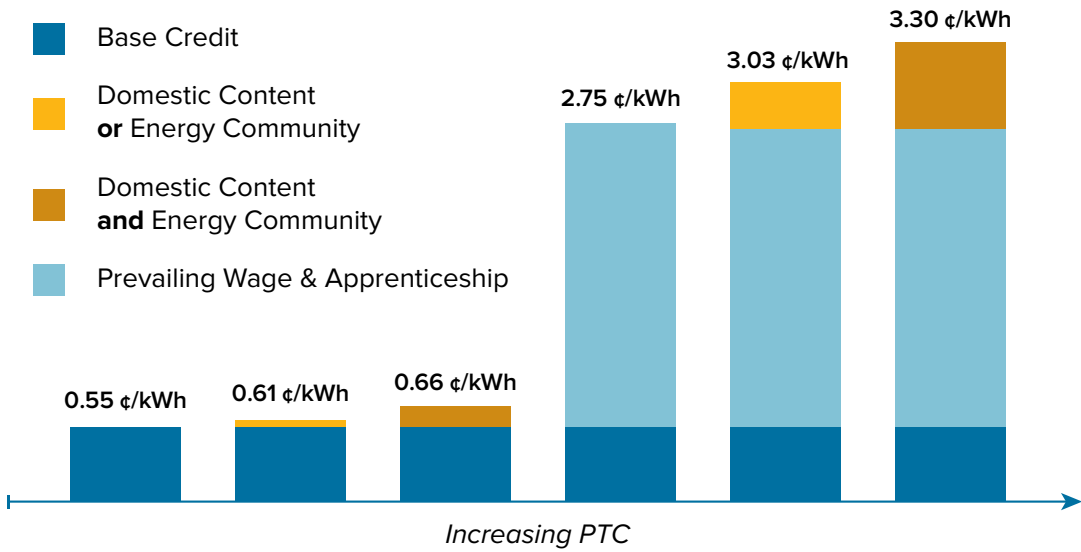
Eligible solar and battery storage technologies available under the PTC include equipment using solar components, inverters, many battery components, and the critical minerals needed to produce these components.

What Is the Benefit of the PTC?

The PTC offers an inflation-adjusted base credit of 0.55 cents/kWh, up to a maximum of 3.30 cents/kWh for 2023. The value is applicable to all electricity produced within the United States and sold to unrelated parties. If the project either has a maximum net output of less than 1 MW AC of electrical energy, or the project satisfies the prevailing wage and apprenticeship requirements, the PTC credit is increased fivefold. The base PTC credit, adjusted for inflation, can be increased by 10% if it meets the domestic content requirements, as outlined in the Domestic Content Requirements section. For projects sited within an energy community, as described in the Energy Siting Requirements section, the base PTC credit, adjusted for inflation, can also be increased by an additional 10%. If a project is able to successfully meet all these requirements, the PTC can provide a credit of up to 3.30 cents/kWh for 2023.

Projects that claim the PTC are ineligible to claim the ITC.

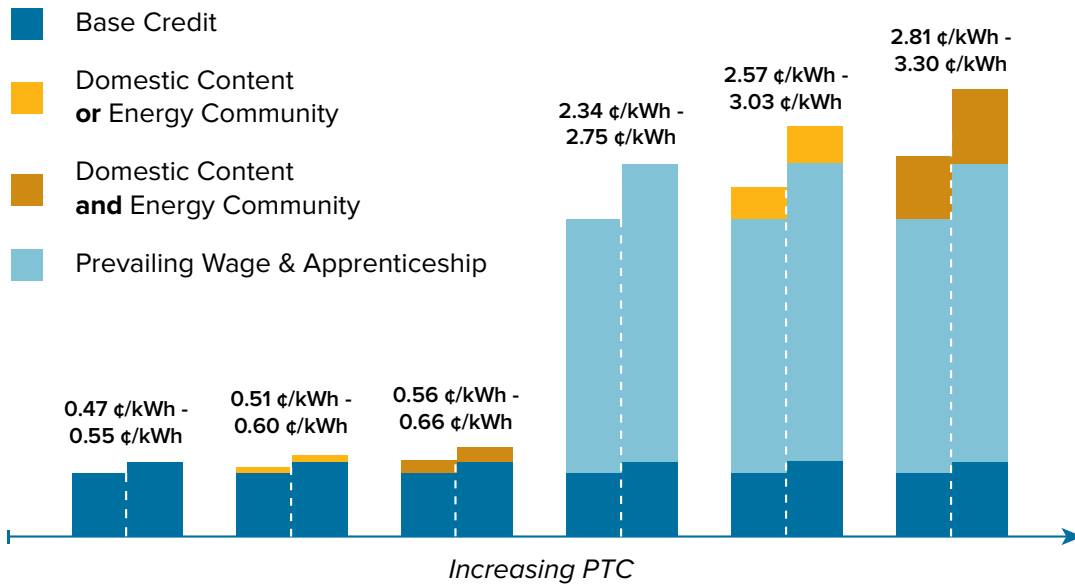
Figure 12 | Stackable PTC



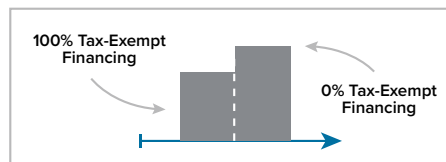
For projects that began construction after August 16, 2022, and are financed by tax-exempt bonds, such as municipal bonds or other bonds that are not subject to federal income taxes, the PTC will be reduced by the lesser of either:

- 15% of the credit, or
- The portion of the qualifying project that has been financed with tax-exempt debt⁵²

Figure 13 | PTC with Tax-Exempt Financing



* As tax-exempt financing increases, PTC decreases by up to 15% of its value



What Impact Does the PTC Have on an Eligible Project?

The PTC can increase the project's effective cents/kWh to the municipality by up to 2.75 cents/kWh above the base credit, if it meets domestic content, prevailing wage, and energy community requirements. Similar to the ITC and CEITC opportunities, the value of the credit may be reduced by the portion of the project funded through tax-exempt debt.

Assuming projects meet prevailing wage, domestic content, and energy community requirements, municipalities can expect to receive between 0.47 cents to 3.3 cents of tax credits per kWh of electricity produced in 2023.

How Can Our Municipality Receive the PTC?

Unrelated Taxpayer

An unrelated taxpayer is one that is not under same control as the project operator and cannot be considered to be part of the same corporate structure.

Projects must be placed in service prior to January 1, 2025, to be eligible for the PTC, after which the project would instead be eligible for the CEPTC. The credit is based off kWh produced in the U.S. and sold to an unrelated taxpayer during the year.⁵³

Requirements such as the domestic content bonus and apprenticeship requirements are based on the year construction began. Identifying the year a project begins construction is defined by one of the following criteria:

- Starting physical work of a significant nature; or
- Incurring 5% or more of the total cost of the facility.⁵⁴

In addition to following the steps outlined above to receive elective pay, the energy credit on Form 8835⁵⁵ can be claimed for eligible facilities for up to 10 years after it is placed in service. More detailed steps on claiming and receiving tax credits are outlined in the Tax Credits Offering Elective Pay section.

Clean Electricity Production Tax Credit?

The Clean Electricity Production Tax Credit (CEPTC) provides a per-kWh federal tax credit that will replace the PTC for infrastructure placed in service after December 31, 2024. Unlike the PTC, this program does not specify specific eligible technologies; instead, projects must be anticipated to generate zero or fewer emissions from electricity generation and can include battery storage technologies.

Table 10 | Differences between the PTC and CEPTC

Construction starts before Jan. 1, 2025	Construction starts after Dec. 31, 2024
Must be solar, biomass, geothermal, wind, waste energy recovery, hydropower, hydrokinetic	Can be any technology
No GHG emission targets	Must be anticipated to have 0 GHG emissions; once in operation, must have less than 10 g carbon dioxide equivalents per kWh
Up to 3.30 cents per kWh of energy produced (2023)	Up to 3.40 cents per kWh of energy produced (equivalent 2023)

Eligibility Requirements

While the CEPTC no longer stipulates a specific technology, facilities must:

- Be placed into service after December 31, 2024
- Have an anticipated emission rate of zero or less grams of carbon dioxide equivalents (CO₂e) per kWh
- Maintain an emission rate of less than 10 grams of CO₂e per kWh
- Not claim either the ITC, CEITC, or AEPC offered through the Inflation Reduction Act⁵⁶

If a facility receiving the CEPTC is determined to have an emissions rate exceeding 10 grams of CO₂e per kWh, the facility will no longer be eligible for the CEPTC.

The CEPTC will begin phasing out at the latter of either 2032 or the year which U.S. GHG emissions from electricity are 25% or lower than the 2022 emissions levels. Once the phase-out begins, any eligible projects must begin construction within three years to claim any credit. Projects that begin construction during the first calendar year of the phase-out schedule are still eligible to receive the full tax credit. Projects that begin construction during the second calendar year of the phase-out schedule are eligible to receive 75% of the credit. Projects that begin construction during the third calendar year of the phase-out schedule are eligible to receive 50% of the credit. Under the current guidance, after the third calendar year of the phase-out schedule, any new projects beginning construction will no longer receive any tax credits under this program.

Further guidance on the CEPTC is anticipated to be issued prior to January 1, 2025, to further outline the implementation of the CEPTC.

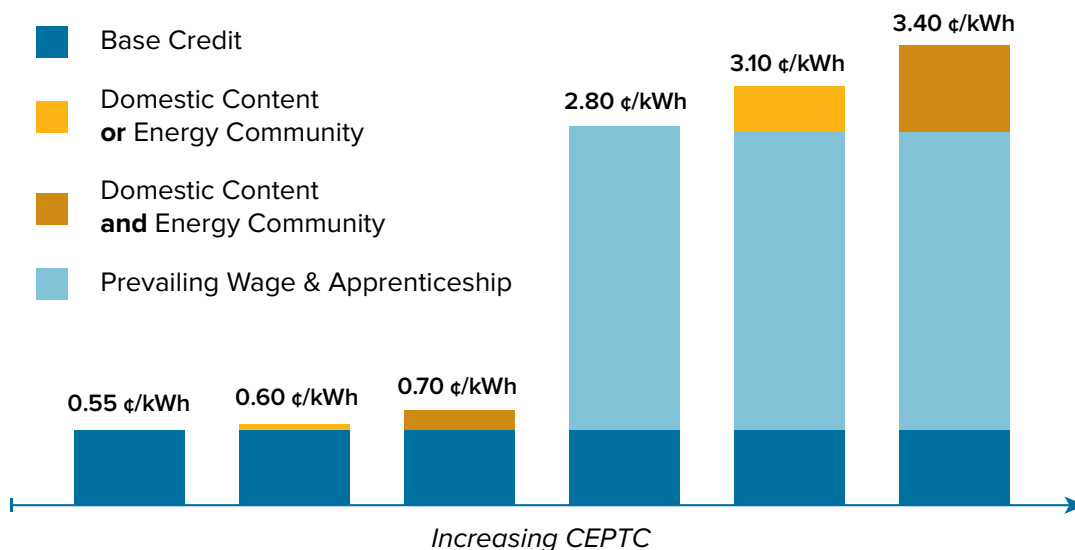
Financial Incentives

The financial benefits of the CEPTC are similar to the PTC because credits are earned based on electricity produced within the U.S. and sold to unrelated parties. However, the financial structure is slightly different, which results in the CEPTC providing different value than the PTC.

Under the CEPTC structure, the base credit is increased by 10% if it meets the domestic content requirements and 10% if it meets the energy siting requirements, as outlined in the Domestic Content Requirements and the Energy Siting Requirements section. These adjustments happen prior to the inflation adjustment.

For comparison, under the PTC structure, the domestic content and energy siting bonuses are applied after the inflation adjustment. After the inflation adjustment, if the project has a maximum net output of less than 1 MW AC of electrical energy, or the project satisfies the prevailing wage and apprenticeship requirements, the CEPTC is increased fivefold. If a project is able to successfully meet all these requirements, the CEPTC can provide a credit of up to 3.40 cents/kWh for 2023, compared to the 3.30 cents/kWh under the PTC.

Figure 14 | Stackable CEPTC



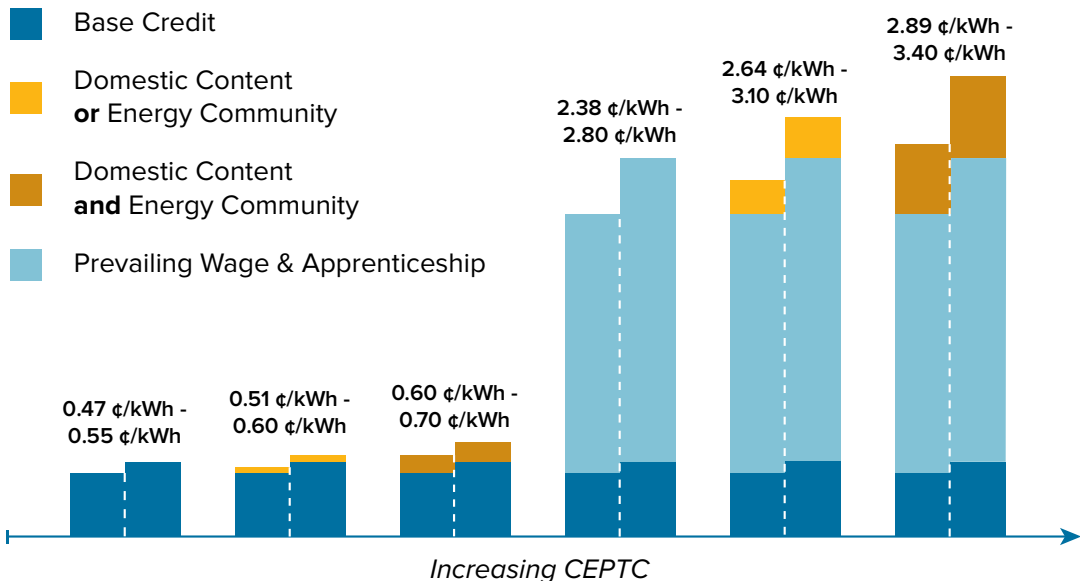
For projects that began construction after August 16, 2022, and are financed by tax-exempt bonds, such as municipal bonds or other bonds which are not subject to federal income taxes, the CEPTC will be reduced by the lesser of either:

- 15% of the credit; or
- The portion of the qualifying project that has been financed with tax-exempt debt.⁵⁷

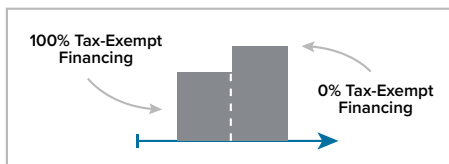
The PTC can increase the project's effective credit to the municipality to a maximum of 3.40 cents/kWh (an increase of 2.85 cents/kWh above the inflation adjusted base credit for 2023), if it meets requirements for domestic content, prevailing wage, and energy community credits. Similar to the ITC and CEITC opportunities, the value of the credit may be reduced by the portion of the project funded through tax-exempt debt.

Projects that claim the CEPTC are ineligible to claim the CEITC

Figure 15 | CEPTC with Tax-Exempt Financing



* As tax-exempt financing increases, CEPTC decreases by up to 15% of its value



Assuming projects meet prevailing wage, domestic content, and energy community requirements, municipalities can expect to receive between 0.47 cents to 3.4 cents of tax credits per kWh of electricity produced in 2023.

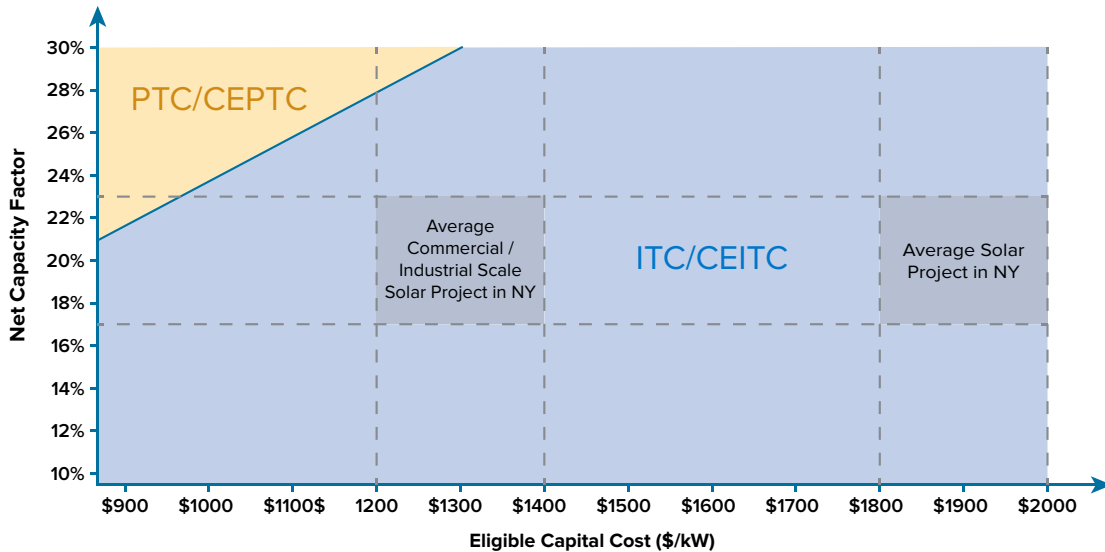
Choosing the PTC/CEPTC or the ITC/CEITC

Since a project is unable to claim both the ITC/CEITC and the PTC/CEPTC, it is important to understand which will offer greater benefit. The ITC/CEITC will change based on project costs, and the PTC/CEPTC will change based on energy generated. Whether a project is comparing the ITC against the PTC or comparing the CEITC against the CEPTC will depend on the timing of project development, outlined in the sections above. While there is a slight difference between the monetization of the PTC and the CEPTC, the comparison against the ITC/CEITC remains largely unchanged. For comparison, Figure 16 shows the two credits on a per kW basis through an eligible capital cost and a net capacity factor metric.

The net capacity factor is a percentage measuring the efficiency of producing power continuously, year-round. Larger net capacity factors indicate greater electricity production. For example, a 1 MW generation facility, if operating 24 hours a day, year-round (100% net capacity factor) could generate 8,760 megawatt-hours (MWh) of electricity. A solar array will generally not be producing electricity 24 hours per day. In New York State, solar arrays have net capacity factors ranging between 17%-23%, which would produce between 1,700-2,300 MWh per MW installed. Based on data from Open NY, the average cost of commercial or industrial solar fell between \$1,200 to \$1,400 per kW.

With the typical net capacity factors in New York State, in most applications, the ITC/CEITC will provide more value than the PTC/CEPTC for solar projects. Figure 16 shows that, in general, projects with a higher net capacity factor and lower capital costs will obtain more value with the PTC/CEPTC.

Figure 16 | Selecting the ITC/CEITC or the PTC/CEPTC



Assumptions:

- Project assumed to satisfy prevailing wage, domestic content, and energy community requirements.
- Project assumed to be placed in service and generating electricity by Jan. 1, 2024.
- Tax credits assumed to be earned by the end of the calendar year.
- Project not financed through tax-exempt income.
- Solar output assumed to degrade by 0.5% annually.
- Future inflation factor for PTC assumed to be 2% annually.
- 8% discount rate assumed.
- Typical net capacity factors for solar projects in NY were sourced from the Solar and Wind Appraisal Model as of Jan. 6, 2022.
- Average capital costs are based on projects constructed between 2021-2023 in New York.

Advanced Energy Project Credit

The Advanced Energy Project Credit (AEPC) allocates a total of \$10 billion under the IRA, with \$4 billion set aside for projects in energy communities over the duration of the program. Updates in the IRA have produced additional guidelines for the Qualifying Advanced Energy Project Credit Allocation Program under Section 48C of the Internal Revenue Code.⁵⁸

Out of the two allocation rounds, the first round began on May 31, 2023, and closed August 3, 2023. The Treasury Department and the IRS anticipate \$4 billion of qualifying advanced energy project credits with approximately \$1.6 billion in credits to be allocated to projects located in energy community census tracts during the first round. The amount of AEPC earned depends on the fulfillment of prevailing wage and apprenticeship requirements. No exact date is confirmed for the start of the second round, though the Treasury and IRS will allocate the remaining credits of roughly \$6 billion in future allocation rounds.

Which Projects Are Eligible?

Eligible solar and battery storage “qualifying advanced energy projects” include projects that:⁵⁹

- Re-equip, expand, or establish an industrial or manufacturing facility for the production or recycling of renewable resources, battery storage components, electric grid modernization equipment, or other advanced energy property; or
- Re-equip, expand, or establish an industrial facility for the processing, refining, or recycling of critical materials.

What Is the Benefit of AEPC?

The value of the AEPC is a tax credit with a base value of 6% of eligible costs. For projects that meet prevailing wage and apprenticeship requirements, the tax credit increases to 30% of eligible costs.⁶⁰ Projects that receive this benefit are ineligible for either the CEPTC or the CEITC.

What Is the Process for Applying for the AEPC?⁶¹

The qualifying AEPC program consists of establishment, certification, selection criteria, review and redistribution, and disclosure of allocations. A process for application approval must occur before allocating tax credits for advanced energy projects. Applicants must submit concept papers to the IRS, which for the first round of eligible credits closed August 3, 2023. Future resources and rounds of applications can be found from the [DOE's website](#). After submission of a concept paper, the DOE will provide a letter to encourage or discourage a submission of an application for the AEPC. Once this letter has been provided, the applicant has a window of 52 days from the date of the letter of encouragement or discouragement to submit their application.

If successful, the applicant will receive an allocation letter. Within two years of receiving the allocation letter, applicants must submit information to meet the certification requirements to the DOE. This includes providing evidence of all necessary permits to commence construction and to demonstrate any commitments or claims made in the application have been met. These can include but are not limited to Community Benefit Agreements, contracts, and offtake agreements.

Following the submission of certification, the IRS will send a certification letter, and once sent, the facility must be placed in service within two years to receive the credit. If the facility is not placed in service within this two-year window, the credit will be forfeited.

For the first round of the AEPC, all allocation decisions will be made by March 31, 2024.⁶²

How Will Projects Be Evaluated for the AEPC?

The submitted programs will be evaluated against four key criteria as part of the evaluation process. These include:

- Commercial viability
- GHG emissions impacts
- Strengthening U.S. supply chains and domestic manufacturing for a net-zero economy
- Workforce and community engagement

Projects must demonstrate a reasonable expectation of commercial viability. Projects will be viewed more favorable if they can:

- Demonstrate the greatest domestic job creation during the credit period
- Provide the greatest net impact in avoiding or reducing air pollutants or emissions of GHG emissions
- Provide the greatest potential for technical innovation and commercial deployment
- Have the lowest levelized cost of generated or stored energy
- Have the shortest project time from certification to completion

4. Grants

The IRA introduces new competitive and formulaic programs. Competitive grant funding opportunities are issued from a variety of U.S. department and agencies, including the Environmental Protection Agency (EPA). The typical process for applying to competitive grant funding programs is generally consistent across grant opportunities. Applications consist of a grant narrative and sometimes include a benefit-cost analysis (BCA). The narrative and BCA must demonstrate that a project's intended benefits match the program's merit criteria described in the notice of funding opportunity (NOFO) and that the project generates more benefits than costs over its lifecycle. Applicants must demonstrate project readiness by describing how much funding is needed, how it will be spent, and include a detailed project schedule. A typical U.S. competitive discretionary grant program could be characterized as follows:

- Agency announces intent to release NOFO along with limited program information.
- Agency releases NOFO (typically within one to two months of initial announcement). Most programs have 60-90 day application windows.
- Applicants prepare and submit application package in accordance with the NOFO prior to the stipulated deadline.⁶³
- Following the application period, agencies will review submitted applications for completeness and satisfying all merit criteria detailed in the NOFO. Agencies may request follow-ups or more information for projects that pass initial rounds of review.
- Projects awarded funding are typically obligated funds six to nine months following submission of the grant application.

Formulaic grant funding has been introduced in the IRA. However, formulaic funding is allocated from federal agencies to State-level bodies and further distributed to local entities through discrete competitive processes or again on a formulaic basis. As such, there is limited opportunity for local governments or agencies to seek funding from additional programs without greater knowledge of the statewide programs to be implemented. At the time of this writing, there is not sufficient detail to provide guidance on seeking funding from formulaic programs.

Solar for All Discretionary Grant

The IRA introduced the Solar for All competitive grant program under the Greenhouse Gas Reduction Fund, administered by the EPA. It is a \$7 billion competition that will provide up to 60 grants to states, tribal governments, municipalities, and nonprofits. The grants are targeted at expanding the number of disadvantaged communities with access to solar programs, design and deploy new Solar for All programs, such as residential rooftop and community solar photovoltaic projects, battery storage, or enabling upgrades.

Which Applicants Are Eligible?

Eligible applicants include states, municipalities, tribal governments, and eligible nonprofit recipients.

Which Projects Are Eligible?

The NOFO references Section 134I(4) of the Clean Air Act zero-emission technologies to include:

- Residential rooftop solar
- Residential-serving community solar
- Associated energy storage
- Enabling upgrades

Projects must be implemented in low-income and disadvantaged communities as defined in the Clean Air Act. These may be characterized by the CEJST mapping tool, the environmental justice (EJScreen) mapping tool, geographically dispersed low-income households, or properties providing affordable housing.

What Is the Application Process?

Applicants had to submit a Notice of Intent (NOI) to initiate the application process before July 31, 2023. The NOI should include the applicant's name, eligibility, number and type of applications, and estimated funding requested. Future updates on this program will be published on the [EPA's website](#).⁶⁵

The deadline to submit the full application online was Sept. 26, 2023. Details on the requirements for the full application can be found in the Notice of Funding Opportunity (NOFO), Section (IV)(B).⁶⁶ The basic package will include several forms, program summary, location, scope of work, funding requested, and the impact targets for the proposed project. Once the full application is submitted prior to the published deadline, the EPA anticipates issuing award notifications by March 2024. There are currently no plans for future rounds of funding under the Solar for All program.

5. Loan Forgiveness/Guarantees

The IRA has introduced and expanded on several loan, loan forgiveness, and loan guarantee programs for solar and battery storage projects. These may be available to borrowers depending on the program and type of project being pursued, which can vary considerably between programs. Opportunities for municipalities and agencies under the IRA include, but are not limited to:

- DOE's Loan Program Office (LPO):
 - Title 17 Clean Energy Financing Program;⁶⁷
 - Innovative Energy Projects;
 - Energy Infrastructure Reinvestment;
 - Tribal Energy Loan Guarantee Program;⁶⁸
- United States Department of Agriculture Programs:
 - Powering Affordable Clean Energy Program (PACE).⁶⁹

What Is the Benefit of Obtaining Loans or Loan Guarantees through These Programs?

Seeking funding under the various federal loan programs provides numerous benefits over seeking traditional financing for renewable energy projects. Typically, arrangements are flexible depending on the scale of the project and amount of funding being sought. Loans received from the Federal Financing Bank (FFB) are eligible for advantageous interest rates relative to the cost of issuing municipal debt. Finally, under certain programs, up to 90% of loans may be guaranteed which can assist municipalities with securing loans from eligible private sector lenders. Lender eligibility varies by program and is discussed further below.

How Can Our Municipality Apply to Receive Loans or Loan Guarantees?

Typical steps in securing loans or loan guarantees including the following:

- **Pre-application:** Prior to initiating an application, prospective applicants generally meet with the issuing department/office to understand if the financing opportunities match the project and provide further guidance on the application process.
- **Application and review:** The precise steps here vary by program and may include technical project eligibility, project details, and projected reduction in GHG emissions.
- **Due diligence:** Third-party advisors are engaged to conduct tasks such as risk and credit reviews, schedule review, and National Environmental Policy Act (NEPA) review. Additional steps may be required to secure a conditional commitment of funding.
- **Financial close:** The local government (i.e., the borrower) and the lender execute financing documents.
- **Monitoring:** Once issued, the lender (or the agency administering the loan) will actively monitor the project's progress, including regular mandatory reporting requirements.

Department of Energy's Loan Program Office

The DOE's Loan Program Office (LPO) provides several types of debt-related financing opportunities to numerous applicants each year under Title 17 and other programs.⁷⁰ The Title 17 Program and Tribal Energy Loan Guarantee Program are highlighted below. It has been reauthorized and expanded under the IRA to include new eligible activities that can be supported with its flexible financing opportunities. The Tribal Energy Program's loan guarantee authority has been expanded from \$2 billion to \$20 billion. The Title 17 Program's loan guarantee authority has been expanded by over \$250 billion under the IRA.

Which Applicants Are Eligible?

Title 17 program

LPO programs are open to several different types of applicants. LPO has worked with project developers, regulated utilities, municipalities, public power entities, and clean technologies manufacturers.

Tribal energy loan guarantee program

The Tribal Energy Loan Guarantee Program is available only to eligible Indian tribes or entities, including Alaska Native village or regional or village corporations or other financial institutions. Other entities or financial institutions meeting certain criteria established by DOE may also be eligible if they can demonstrate their eligibility under other programs offered by the U.S. government for Indians.

Which Projects Are Eligible?

Title 17 program

A number of projects are eligible under the Title 17 Program, including but not limited to:

- Replacing, retooling, repowering, or replacing retired power plants with renewable energy and storage;
- Developing utility-scale solar projects; or
- Distributed solar projects.

The Innovative Energy Projects and Energy Infrastructure Reinvestment (EIR) streams are two opportunities within the Title 17 Program for governments or developers to unlock competitive federal funding. Innovative Energy Projects require (as the name suggests) innovative clean energy technologies at commercial scale.⁷¹ The EIR stream is aimed at improving, rehabilitation, or otherwise improving existing energy infrastructure.⁷²

Tribal energy loan guarantee program

A significant range of projects are eligible under the program. Some projects could include, but are not limited to:

- Electricity generation, transmission, or distribution facilities, utilizing renewable energy sources; or,
- Battery storage.

Which Lenders Are Eligible?

Title 17 program

Under the Title 17 Program, private lenders must satisfy several criteria to meet the eligibility requirements for the loan guarantee. The Program Guidance document states that financial institutions, State Energy Financing Institutions, and trusts or other entities designated as trustees or agents acting on behalf of institutional investors, bondholders, or others may be eligible. They must meet the following five criteria:

- Not debarred or suspended in a federal government contract;
- Not delinquent on any federal debt or loan;
- Legally authorized and empowered to enter into loan;
- Able to demonstrate experience in originating and servicing loans for commercial projects similar in size and scope to the project; and
- Able to demonstrate experience as the lead lender or underwriter by presenting evidence of its participation in large commercial projects or energy-related projects.

Tribal energy loan guarantee program

Federally regulated commercial banks or other financial institutions that are able to demonstrate experience related to energy development loans are eligible for partial loan guarantees. In addition, they must satisfy the requirements for eligible lenders under the Title 17 Program detailed above.

Since May 2022, loan guarantees under the Tribal Energy Loan Guarantee Program are not required to pay application, facility, or maintenance fees. These are still required under the Title 17 Program.

What Is the Application Process?

Title 17 program

The Title 17 Program follows a four-step process:

- **Pre-application consultation:** Applicants will discuss project details, discuss the process phases, and assess whether the project is ready to proceed.
- **Part I:** The first part is intended to determine, based on detailed review, whether the project fully satisfies the eligibility requirements. If it meets the requirements, they will be invited to submit the second phase.
- **Part II:** The second part consists of more detailed project information, contracts and agreements, technical details, permits and approvals, and a developed business plan.
- **Due diligence & financial close:** Following the approval of the Part II application, the applicant will engage a third-party advisor to conduct due diligence on the proposed term sheet and the project's technical details. Following the due diligence process, the DOE and applicant will execute the financial agreements.

The entire application process, from initiating a pre-application consultation to financial close, can take anywhere from six months to over one year. The application timeline is highly dependent on the applicant's preparedness. As such, it is recommended to consult the program guidance⁷³ in detail prior to initiating pre-application consultation. Taking steps early on to prepare documentation and clearly articulate a project's scope and schedule will expedite the later stages of the application process.

Tribal energy loan guarantee program

The Tribal Energy Loan Guarantee Program operates similarly to the Title 17 application process. A full description of the application can be found in the full Solicitation Announcement on the Tribal Energy Program's website.⁷⁴

What Are the Loan Terms?

Title 17 program

The terms for a Title 17 loan will vary significantly depending on a project's needs. Some key conditions include the following:

- The loan term may not exceed 30 years.
- The loan term may not exceed 90% of the expected life of the asset financed by the loan.

Funds loaned through the FFB and guaranteed by LPO may be disbursed in tranches based on milestones of completion at DOE's discretion. The interest rates are set based on the U.S. Treasury curve the day funds are drawn, plus a liquidity spread of 0.375%, and a Risk-Based Charge. The value of the Risk-Based Charge will depend on the creditworthiness of the borrower.

While there is no maximum loan size that may be guaranteed under the Title 17 Program, the program overall is subject to limits on LPO's loan authority. The maximum amount of funding offered will be determined during the due diligence phase of the application process based on the project's forecasted cash flows.

Tribal energy loan guarantee program

The Tribal Energy Loan Guarantee Program is authorized to forgive up to 90% of unpaid principal and interest due on any loan made. The guarantee or direct loan cannot exceed 80% of the project costs at the time the loan is issued. Because the program is exclusively geared towards loan forgiveness and guarantees, the terms will vary widely across individual agreements. As such, detailed loan terms are not described here. The terms of Tribal Energy Loan Guarantee Program are available under the solicitation document.⁷⁵

Applicants are responsible for certain third-party fees incurred by the DOE in processing and assessing applications. This may include independent advisors to conduct financial due diligence, legal counsel, or transaction structuring services.

How Can This Benefit My Community?

The LPO offers competitive and flexible financing for a number of different projects. Offered financing programs include loans and loan guarantees. The amount of the loan can cover up to 80% of the eligible project costs, although typically loans fall in the 40-60% range. The interest rates charged are based on the U.S. Treasury curve plus an additional spread.

Powering Affordable Clean Energy Program

The Powering Affordable Clean Energy (PACE) program allocates \$1 billion in funding under the IRA to make clean, affordable, and reliable energy accessible to the people of rural America. The U.S. Department of Agriculture (USDA) Rural Development's Rural Utilities Service (RUS) uses federal programs to support the development of energy infrastructure in rural areas. The program will forgive up to 60% of loans for renewable energy projects that use wind, solar, hydropower, geothermal, or biomass, as well as for renewable energy storage projects.⁷⁶

Which Applicants Are Eligible?

The PACE program is available to eligible applicants that generate electricity for resale to residents in both rural and nonrural areas. However, at least 50% of the population served by the proposed renewable energy project must live in communities with populations of 20,000 or fewer. Eligible applicants include:

- For-profit organizations
- State or local governments
- Indian tribes defined by the Federally Recognized Indian Tribe List Act of 1994;
- Nonprofits
- Institutions of higher education
- Community-based organizations, distribution electric cooperatives, and generation and transmission electric organizations

Which Projects Are Eligible?

RUS will offer both Project Loans and System Loans to finance a project. Project Loans are provided to applicants that are not eligible for, or have decided not to pursue, a System Loan. Any PACE applicant that is not a current operating utility would be required to apply for a Project Loan if it is secured through a senior security interest and the revenues generated on the project's assets. The applicant would own and operate the Renewable Energy Resource (RER) and/or Battery Energy Storage System (BESS) that are financed with the PACE loan funds and ensure that the electrical output of these facilities is delivered to an Off-Taker(s) who has/have agreed to receive and purchase the power under an executed power purchase agreement (PPA).⁷⁸

A project loan will be used to finance a project in the amount that does not exceed 75% of the total capitalized cost of the project, or the total capitalized cost of the project less the project's equity contribution and other sources of capital financing.

Senior Security Interest

A senior security interest means that a lender such as USDA's RUS is first in line to recoup their losses in the event of a default. They may use the project assets and any revenue generated by the project facility to cover losses on the guaranteed loan.

System loans are provided where the funding is secured through a senior security interest in all assets of the applicant. This type of loan is only available to currently operating electric utilities. The applicant will provide the RUS with collateral for the loan on all its existing assets, with priority to be paid back first in the event of defaulting on the loan. The system loan may be used to finance 100% of the project costs included in an application. PACE includes three categories (I, II and III) that determine the level of loan forgiveness an applicant may receive:

- **Category I:** Provides up to 20% total loan forgiveness for applicants if they meet the minimum set of standards set forth in the PACE program NOFO.^{79, 80}
- **Category II:** Provides up to 40% total loan forgiveness if the project is in or serves 50% or more of the population of a designated energy community, disadvantaged community, or distressed community.
- **Category III:** Provides up to 60% total loan forgiveness if the project is located in U.S. territories or in Compact Free Association areas,⁸¹ or serves areas with tribal populations of 60% or greater, are owned by a tribal government, or are in a Substantially Underserved Trust Area.⁸²

For either loan type, the project must prove to be financially feasible. If there is not reasonable assurance that the loan, in addition to any existing debt will be repaid in full on schedule, a loan will not be issued by the RUS. To prove financial feasibility, the RUS evaluates projects on the following criteria:

- Projections of the borrower must show projected revenues from rates must meet the debt service coverage ratio and a times interest earned ratio⁸³ of 1.25.
- Projected rates must cover all expenses and be competitive with other utilities and energy suppliers.
- Risk from loss of large consumers or loss of portions of service territory will not substantially impact the project's feasibility.
- Adequate financial and management controls are in place and any necessary approval from regulatory bodies is anticipated to be forthcoming.⁸⁴

What Are the Loan Terms?

After an application gets approved, the terms of the loan for the applicant vary. The maximum available loan is \$100 million, including the forgivable portion; the minimum loan is \$1 million. Provided the project is financially feasible, loan terms are the shorter of:

- 35 years
- Useful life of the equipment financed
- Term of the PPA
- Term of any leased property.

Interest rates are also set to the USDA's municipal rates, which are advantageous compared to interest rates from commercial lenders.⁸⁵

What Is the Application Process?

To be considered for funding, an applicant must first submit a letter of interest (LOI), which will be evaluated by RUS to determine if the applicant can proceed with an application for a PACE loan. Applications will be accepted on a rolling basis in the order they are received and evaluated. The USDA currently expects only one round of LOIs. If funds remain available, the USDA expects to make the remaining funds available in a subsequent round. LOIs can be submitted using grants.gov. For program timeline and application deadlines please visit [usda.gov](https://www.usda.gov).⁸⁶ A requirement of this program is that all funds must be disbursed by September 30, 2031. Prospective applicants should monitor the PACE program website for future announcements of funding rounds.

How Can This Benefit My Community?

PACE funding offers lower financing costs for projects through advantageous interest rates and can also offer loan forgiveness. A portion of the awarded loan can be forgiven at the time of the award if the project adheres to what was represented in the application. Should a portion of the loan be forgiven, it does not need to be paid back, and can further reduce financing costs of a project. Lower financing costs can translate into lower electricity rates for consumers.

6. In Summary

The Inflation Reduction Act has expanded the opportunities for municipalities to receive funding incentives for clean energy projects. The increased eligibility of tax credits and elective pay allows municipalities to reduce effective capital project costs by up to 70% or provide lower cost electricity through production tax credits up to 3.4 cents/kWh allowing for more financially beneficial projects. Municipalities and local agencies can capitalize on new financial incentives available under the IRA. In addition to direct monetary value to municipalities, communities will benefit from lower electricity costs and reduced emissions as a result of these programs.

Projects that can meet prevailing wage and apprenticeship requirements, domestic content requirements, and are sited in energy communities or low-income communities stand to benefit the most from currently available incentives. The specifics for meeting the requirements of each credit can be nuanced and vary in the level of detail required. It is recommended to engage the services of legal counsel and tax professionals to fully understand the relative potential benefits of each program. Some key takeaways for municipalities include:

- The prevailing wage and apprenticeship benefit provides the highest value under the ITC and PTC and, in the case of the ITC, escalates the value of other credits. As such, take care that these requirements are satisfied.
- Satisfying the domestic content criterion is required to receive any elective pay credits after 2026, though failing to satisfy the domestic content requirements will reduce the elective pay credit amount between 2024 and 2026, making it a critical component of maximizing the value of credits received.
- Carefully document the steps taken to meet prevailing wage and apprenticeship requirements in accordance with the IRA and New York Department of Labor regulations.
- Take care to record all project components and manufactured products for place of origin to satisfy domestic content requirements.
- Note the date of initial construction when performing financial planning for solar projects, as the year of construction will impact the tax credit's value.
- Ensure the steps taken to pre-register and file a tax return are performed well in advance of the mid-April deadline to obtain the desired tax credit.
- Monitor updates for grant and loan opportunities through DOE, USDA, or grants.gov
- For grant and loan applications, compile project details including schedule, budget, and funding sources prior to submitting an application or LOI. This will expedite the application process.

Beyond tax credits, new and expanded programs offering grants, loan forgiveness, and loan guarantees offer other avenues for municipalities to fund project costs. Other options include technical assistance programs that can provide support and expertise as opposed to direct funding to municipalities, more information can be found in [The White House, Investing in America Technical Assistance Guide](#).⁸⁷ Guidance continues to be released on programs that will offer greater clarity on specifications and eligibility requirements that may continue to change a given project's economic viability. Periodic review of the latest IRS guidance is recommended.

Appendix A: Program Deadlines

The following contains a list of solar and storage IRA programs and their respective deadlines. These dates are based on federal guidance as of October 2023 and are subject to change. It is recommended to review the latest federal guidance to be informed of any changes. Links to federal guidance for each program is contained within the body of this document.

Program	Deadline
Advanced Energy Credit	Varies based on DOE deadlines
Energy Infrastructure Reinvestment Financing	No deadlines to submit
Innovative Energy Projects	No deadlines to submit
ITC/CEITC	Varies based on tax year
Low Income Community Tax Credit	Varies based on DOE deadlines
PACE Program	Sept. 29, 2023
PTC/CEPTC	Varies based on tax year
Solar For All Program	Sept. 26, 2023
Tribal Energy Loan Guarantee Program	Aug. 31, 2028

Appendix B: Detailed Prevailing Wage and Apprenticeship Requirements

This appendix contains additional details required for adhering to the prevailing wage and apprenticeship bonus tax credit as part of the ITC/CEITC or PTC/CEPTC as of October 2023. The specific recordkeeping requirements are detailed in the IRS guidance released Aug. 30, 2023. However, these are subject to change pending public comments. The IRS is expected to publish final guidance after November 21, 2023. Applicants should monitor IRS guidance releases for recordkeeping requirements.

Prevailing Wage Requirements

IRS guidance states the taxpayer would be responsible for reporting the following information at the time of filing for prevailing wage requirements:

- Location and type of qualified facility
- Applicable wage determinations for type and location of the facility
- Hourly rate of wages paid for each laborer or mechanic classification (primarily manual or physical work) engaged in construction, alteration, or repair of the facility
- Name, social security or tax identification number, address, telephone number, and email address of each laborer and mechanic (and qualified apprentices) working on the facility
- Labor classification for each laborer and mechanic for determining prevailing wage rate and documentation around applicable wage determination
- Total labor hours worked per pay period for each laborer and mechanic
- Total wages paid for each pay period, including identifying deductions from wages for each laborer and mechanic
- Number of workers who received correction payments (if applicable) for each laborer and mechanic
- Wages paid and hours worked by qualified apprentices for each of the laborer or mechanic classifications engaged in construction, alteration, or repair of facility
- Total labor hours for the construction, alteration, or repair of the facility by any laborer or mechanic employed by the project owner, contractor, or subcontractor
- Amount and timing of any correction payments and documentation to support the calculation of correction payments
- Records to document contributions to, costs anticipated with the implementation of, and written communication of an enforceable commitment to carry out a bona fide fringe benefit plan for laborers and mechanics

Apprenticeship Requirements

For apprenticeship requirements, the following information must be maintained:

- Copies of any written requests for apprentices by the project owner, contractor, or subcontractor
- Agreements entered by the project owner, contractor, or subcontractor with a registered apprenticeship program
- Documents reflecting any registered apprenticeship program sponsored by the project owner, contractor, or subcontractor
- Documents verifying each apprentice's participation in a registered apprenticeship program;
- Records reflecting the daily ratio of apprentices to journeyworkers
- Records reflecting the required ratio of apprentices to journeyworkers as prescribed by the registered apprenticeship program
- Total number of labor hours worked by apprentices
- Payroll records for any work performed by apprentices

Appendix C: Detailed Low-Income Community Tax Credit Guidance

The following contains documentation required for Low-Income Community Bonus Tax Credit Applications (Categories 1-4).

Document Required	1	2	3	4
Attestation that location is eligible	X	X		
Attestation that consumer discloses informing customers of their legal rights and protections have been provided	X	X	X	X
Attestation that facility has obtained all applicable permits	X	X	X	X
Attestation that applicant is compliant with all federal, state, and local laws	X	X	X	X
Attestation that applicant appropriately sized the facility to meet customer's energy needs	X	X	X	X
Attestation that proposed location of the facility is suitable for the installation	X	X	X	X
Documentation demonstrating property will be installed on an eligible residential building			X	
Plans to ensure tenants receive required financial benefits			X	
Documentation verifying the low-income status of each household being allocated output from the qualifying facility				X
Attestation that at least half of the facility's total output will be provided to qualifying low-income households that each will receive the required minimum bill credit discount rate				X
Ownership Criteria: Documentation demonstrating applicant meets ownership criteria*	X	X	X	X
Geographic Criteria: Attestation that facility location is eligible based on persistent poverty county or a disadvantaged community in the Climate and Economic Justice Screening Tool*	X		X	X
Executed contract to purchase or lease the facility; executed power purchase facility**	X	X	X	X
Executed interconnection agreement; or signed conditional letter indicating intention to execute interconnection following construction or interconnection of the facility***	X	X	X	X
Attestation that applicant has site control (through ownership, lease contract, site access agreement)****	X	X	X	X

* Required if applying under additional selection criteria

** Required if facility is behind the meter

*** Required if the facility is front of the meter or behind the meter with a nameplate capacity exceeding 1 MW of alternating current

**** Required if the facility is front of the meter

End Notes

- 1 Internal Revenue Service. (2023). Elective Pay Overview (Publication 5817 (6-2023)). U. S. Department of Treasury. <https://www.irs.gov/pub/irs-pdf/p5817.pdf>
- 2 Since private developers will also benefit from IRA's increased bonus tax credits, applicable entities can also leverage benefits of the IRA by entering a power purchase agreement (PPA) with private developers who have taken advantage of the bonus tax credits. This allows municipalities to avoid taking on the burden of meeting the eligibility criteria for tax credits offering elective pay themselves, while still receiving clean electricity at lower costs than before the implementation of the IRA.
- 3 This is a requirement to be eligible for the CEITC and the CEPTC, which replace the ITC and the PTC as of Jan. 1, 2025. Additional requirements for base tax credit offering elective pay, pertaining to greenhouse gas emissions, is anticipated in the future.
- 4 Internal Revenue Service. (2023). Elective Pay Overview (Publication 5817 (6-2023)). U.S. Department of the Treasury. <https://www.irs.gov/pub/irs-pdf/p5817.pdf>
- 5 Internal Revenue Service. (2023). Elective Pay Overview (Publication 5817-G (6-2023)). U.S. Department of the Treasury. <https://www.irs.gov/pub/irs-pdf/p5817g.pdf>
- 6 Cleanenergy.gov. (2023). Clean Energy Tax Provisions in the Inflation Reduction Act. The White House. <https://www.whitehouse.gov/cleanenergy/clean-energy-tax-provisions/>
- 7 Internal Revenue Service. (2023). Elective Pay and transferability Frequently Asked Questions: Elective Pay. U.S. Department of Treasury. <https://www.irs.gov/credits-deductions/elective-pay-and-transferability-frequently-asked-questions-elective-pay#q18>
- 8 Internal Revenue Service. (2023). Elective Pay and transferability Frequently Asked Questions: Elective Pay (Questions 13-17). U.S. Department of Treasury. <https://www.irs.gov/credits-deductions/elective-pay-and-transferability-frequently-asked-questions-elective-pay#q15>
- 9 Internal Revenue Service. (2023). Instructions for Form 990-T. U.S. Department of Treasury. <https://www.irs.gov/instructions/i990t>
- 10 Internal Revenue Service. (2023). Instructions for Form 3800. U.S. Department of Treasury. <https://www.irs.gov/instructions/i3800>
- 11 Internal Revenue Service. (2023). About Form 3468, Investment Credit. U.S. Department of Treasury. <https://www.irs.gov/forms-pubs/about-form-3468>
- 12 Internal Revenue Service. (2023). About Form 8835, Renewable Electricity Production Credit. U.S. Department of Treasury. <https://www.irs.gov/forms-pubs/about-form-8835>
- 13 To achieve any elective pay from tax credits without meeting domestic content requirements, project construction must start by 2026.
- 14 Energy community credits require a project located within a Brownfield site, located within or adjacent to a recent coal mine or recent coal-fired generation plant; or within communities with high unemployment and meet thresholds of coal-based employment or revenues: (<https://arcgis.netl.doe.gov/portal/apps/experiencebuilder/experience/?id=a2ce47d4721a477a8701bd0e08495e1d>)
- 15 The low-income community bonus credit is only applicable to ITC or CEITC projects.
- 16 Foreign Labor Application Gateway. (2023). Prevailing Wages. U.S. Department of Labor. <https://flag.dol.gov/programs/prevailingwages>
- 17 System for Award Management. (2023). Wage Determinations. U.S. Government. sam.gov/content/wage-determinations

- 18 Internal Revenue Service. (2022). Prevailing Wage and Apprenticeship Initial Guidance Under Section 45(b)(6)(B)(ii) and Other Substantially Similar Provisions (87 FR 73580). U.S. Department of Treasury. <https://www.federalregister.gov/documents/2022/11/30/2022-26108/prevailing-wage-and-apprenticeship-initial-guidance-under-section-45b6bii-and-other-substantially>
- 19 U.S. Department of Labor. (2023). Prevailing Wage and the Inflation Reduction Act. <https://www.dol.gov/agencies/whd/IRA>
- 20 Electricity produced from certain renewable resources, etc., 26 U.S.C. §45 (2004). <https://www.law.cornell.edu/uscode/text/26/45>
- 21 Internal Revenue Service. (2023). Increased Credit or Deduction Amounts for Satisfying Certain Prevailing Wage and Registered Apprenticeship Requirements (FR Doc. 2023-18514). U.S. Department of Treasury. <https://www.govinfo.gov/content/pkg/FR-2023-08-30/pdf/2023-18514.pdf>
- 22 Clean electricity production credit, 26 U.S.C. §45Y (2022). <https://www.law.cornell.edu/uscode/text/26/45Y>
- 23 Office of energy & Renewable Energy. (2023). Solar Manufacturing Map. U.S. Department of Energy. <https://www.energy.gov/eere/solar/solar-manufacturing-map>
- 24 Internal Revenue Service. (2023). Domestic Content Bonus Credit Guidance under Sections 45, 45Y, 48, and 48E. U.S. Department of Treasury. <https://www.irs.gov/pub/irs-drop/n-23-38.pdf>
- 25 Clean electricity production credit, 26 U.S.C. §45Y (2022). <https://www.law.cornell.edu/uscode/text/26/45Y>
- 26 Internal Revenue Service. (2023). Domestic Content Bonus Credit Guidance under Sections 45, 45Y, 48, and 48E. U.S. Department of Treasury. <https://www.irs.gov/pub/irs-drop/n-23-38.pdf>
- 27 Internal Revenue Service. (2023). Energy Community Bonus Credit Amounts under the Inflation Reduction Act of 2022. U.S. Department of Treasury. <https://www.irs.gov/pub/irs-drop/n-23-29.pdf>
- 28 Energy credit, 26 U.S.C. §48 (2022). <https://www.law.cornell.edu/uscode/text/26/48>
- 29 Internal Revenue Service. (2022). Instructions for Form 3468 (2022). U.S. Department of Treasury. https://www.irs.gov/instructions/i3468#en_US_2022_publink1000297066
- 30 Internal Revenue Service. (2023). Elective Pay and transferability Frequently Asked Questions: Elective Pay (Additional Elective Payment Election Rules). U.S. Department of Treasury. <https://www.irs.gov/credits-deductions/elective-pay-and-transferability-frequently-asked-questions-elective-pay#q41>
- 31 [n-19-43.pdf](#) (irs.gov)
- 32 [26 U.S. Code § 48E - Clean electricity investment credit | U.S. Code | US Law | LII / Legal Information Institute \(cornell.edu\)](#)
- 33 [Initial Guidance Establishing Program to Allocate Environmental Justice Solar and Wind Capacity Limitation Under Section 48\(e\)](#) (irs.gov)
- 34 [26 U.S. Code § 48 - Energy credit | U.S. Code | US Law | LII / Legal Information Institute \(cornell.edu\)](#)
- 35 [26 U.S. Code § 45 - Electricity produced from certain renewable resources, etc. | U.S. Code | US Law | LII / Legal Information Institute \(cornell.edu\)](#)
- 36 [26 U.S. Code § 48E - Clean electricity investment credit | U.S. Code | US Law | LII / Legal Information Institute \(cornell.edu\)](#)
- 37 [486.pdf](#) (house.gov)
- 38 [Microsoft Word - Category 3 Eligible Housing Programs_UST](#) (energy.gov)
- 39 [Section8-IncomeLimits-FY23.pdf](#) (huduser.gov)
- 40 [Low Income Community Census Tracts - 2016-2020 ACS - Overview](#) (arcgis.com)
- 41 [Summary of Inflation Reduction Act provisions related to renewable energy | US EPA](#)
- 42 [Low-Income Communities Bonus Credit Program | Department of Energy](#)
- 43 [Microsoft Word - Category 3 Eligible Housing Programs_UST](#) (energy.gov)
- 44 [2023-17078.pdf](#) (govinfo.gov)

- 45 [MF_Memo_re_Community_Solar_Credits_in_MM_Buildings.pdf \(hud.gov\)](#)
- 46 2023 Section 8 Income Limits table can be used to verify income limits at or below the qualifying income level. [huduser.gov/portal/datasets/il/il23/Section8-IncomeLimits-FY23.pdf](#)
- 47 [2023-17078.pdf \(govinfo.gov\)](#)
- 48 [RP-2023-27 \(irs.gov\)](#)
- 49 See What are other key definitions to understand for the low-income community bonus credit? for more details.
- 50 [Explore the map - Climate & Economic Justice Screening Tool \(geoplatform.gov\)](#)
- 51 [2023-17078.pdf \(govinfo.gov\)](#)
- 52 [Instructions for Form 3468 \(2022\) | Internal Revenue Service \(irs.gov\)](#)
- 53 The definition of an unrelated taxpayer in Section 45 is defined under 26 § 52(b)
- 54 [Instructions for Form 8835 \(2022\) | Internal Revenue Service \(irs.gov\)](#)
- 55 [Instructions for Form 8835 \(2022\) | Internal Revenue Service \(irs.gov\)](#)
- 56 [26 U.S. Code § 45Y - Clean electricity production credit | U.S. Code | US Law | LII / Legal Information Institute \(cornell.edu\)](#)
- 57 [Instructions for Form 3468 \(2022\) | Internal Revenue Service \(irs.gov\)](#)
- 58 [Additional Guidance for the Qualifying Advanced Energy Project Credit Allocation Program under Section 48C\(e\) \(irs.gov\)](#)
- 59 [26 U.S. Code § 48C - Qualifying advanced energy project credit | U.S. Code | US Law | LII / Legal Information Institute \(cornell.edu\)](#)
- 60 [Advanced Energy Project Credit | Internal Revenue Service \(irs.gov\)](#)
- 61 [26 U.S. Code § 48C - Qualifying advanced energy project credit | U.S. Code | US Law | LII / Legal Information Institute \(cornell.edu\)](#)
- 62 [Additional Guidance for the Qualifying Advanced Energy Project Credit Allocation Program under Section 48C\(e\) \(irs.gov\)](#)
- 63 <https://www.grants.gov/web/grants/search-grants.html>
- 64 [Solar for All | GRANTS.GOV](#)
- 65 [Solar for All | US EPA](#)
- 66 [Solar for All | GRANTS.GOV](#)
- 67 [TITLE 17 CLEAN ENERGY FINANCING | Department of Energy](#)
- 68 [TRIBAL ENERGY FINANCING | Department of Energy](#)
- 69 [Powering Affordable Clean Energy PACE Program | Rural Development \(usda.gov\)](#)
- 70 [Program Guidance: Title-17 Clean-Energy-Program](#)
- 71 [INNOVATIVE ENERGY AND INNOVATIVE SUPPLY CHAIN | Department of Energy](#)
- 72 [ENERGY INFRASTRUCTURE REINVESTMENT | Department of Energy](#)
- 73 [Program Guidance: Title-17 Clean-Energy-Program](#)
- 74 [tribal-energy-loan-guarantee-program-solicitation-current](#)
- 75 [tribal-energy-loan-guarantee-program-solicitation-current](#)
- 76 [Powering Affordable Clean Energy PACE Program | Rural Development \(usda.gov\)](#)
- 77 [Rural E-Connectivity Program Application Guide for Fiscal Year 2022 \(usda.gov\)](#)
- 78 [Power Purchase Agreement | Better Buildings Initiative \(energy.gov\)](#)

- 79 Under Category I, the minimum requirements include demonstrating ratepayer benefits, technical feasibility, and financial feasibility.
- 80 [Federal Register :: Notice of Funding Opportunity for the Powering Affordable Clean Energy \(PACE\) Program](#)
- 81 [Compacts of Free Association | U.S. Department of the Interior \(doi.gov\)](#)
- 82 [Substantially Underserved Trust Area \(SUTA\) | Rural Development \(usda.gov\)](#)
- 83 Times interest earned ratio is calculated as earnings before interest and taxes divided by the total interest payable on bonds and other debt.
- 84 [eCFR :: 7 CFR 1710.112 -- Loan feasibility.](#)
- 85 Municipal interest rates can be found at <https://www.rd.usda.gov/page/rural-utilities-loan-interest-rates>
- 86 [Powering Affordable Clean Energy PACE Program | Rural Development \(usda.gov\)](#)
- 87 The White House, Investing in America Technical Assistance Guide



NYSERDA

**New York State
Energy Research and
Development Authority**

17 Columbia Circle
Albany, NY 12203-6399

toll free: 866-NYSERDA
local: 518-862-1090
fax: 518-862-1091

info@nyserda.ny.gov
nyserda.ny.gov