



Solar Tax Credits

Energy Efficiency and Renewable Project Opportunities Given the New Federal Inflation Reduction Act 2022

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**Presented by:
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Inflation Reduction Act of 2022

WHAT CHANGED WITH THE INFLATION REDUCTION ACT

- The recently passed Inflation Reduction Act has changed the way municipalities and non-profit 501(c)(3) entities can structure and finance renewable energy projects.
- Historically, development of renewable energy projects has been driven by federal and state incentives, including federal tax credits. As a result, most projects have been structured and financed through private ownership, at least for a period of time, in order to fully capture the associated federal tax benefits.
- **Newly created provisions of the Act now permit municipalities and non-profit 501(c)(3) organizations to receive incentives through direct payments from the US Treasury in lieu of investment or production tax credits.**

Law enacted August 12, 2022

- Prevailing Wage & Apprenticeship guidelines published November 30, 2022
- Low-to-Moderate Income bonus initial guidance published February 13, 2023
- Further IRS guidance on implementation to come

Issuers and 501(c)(3) Borrowers can now:

- Own renewable energy facilities or projects AND
- Directly benefit from tax credits

Another Federal grant funding program

- Comparable to "direct pay" bonds (e.g. BABs, QSCBs)
- Credit against tax includes an overpayment of tax (e.g. withholding)
- Amount varies based on a number of factors

Source: The Inflation Reduction Act of 2022, U.S. Treasury, Internal Revenue Service

Inflation Reduction Act of 2022

AMOUNT OF TAX CREDITS AVAILABLE

The investment tax credit (ITC) is a one-time payment after the facility is placed into service. In general, for qualifying projects, the ITC has a **base rate of 6% of the applicable costs with an increased rate of 30% for projects meeting certain prevailing wage and apprenticeship requirements.**

In addition, the ITC may be **further increased** for qualifying projects if certain requirements are met as shown in the following chart.

Bonus Amounts:
increases to base
credit amount

DOMESTIC CONTENT +10% qualifying projects incorporating sufficient domestic materials	LOW-INCOME COMMUNITIES +10% qualifying wind and solar projects located in certain low-income communities
ENERGY COMMUNITY +10% qualifying projects located in an "energy community"	OR
	LOW-INCOME COMMUNITIES +20% qualified low-income economic benefit projects

Source: The Inflation Reduction Act of 2022, U.S. Treasury, Internal Revenue Service

Inflation Reduction Act of 2022

APPLICABLE DEFINITIONS

Prevailing Wage & Apprenticeship Requirements

- Applies to construction, alteration and repair of project
- Prevailing Wage – union wages in locality of project determined by Secretary of Labor
- Apprenticeship – Applies to taxpayer, contractor or subcontractor employing 4 or more individuals – must employ one or more qualified apprentices to do work

Solar & Wind Projects in Low-Income Communities

- Need allocation of “Environmental Justice Solar & Wind Capacity”
- Max output of 5 MW
- Located in low-income community or on Indian land (10% increase); or Part of qualified low-income residential building or economic benefit project (20% increase)

Energy Community

- Brownfield site as defined by CERCLA
- Closed fossil fuel employer with certain unemployment requirement
- Closed coal mine or coal-fired electric generating unit

Domestic Content

- Steel, iron or manufactured product which is a component of project is produced in US

Source: The Inflation Reduction Act of 2022, U.S. Treasury, Internal Revenue Service

Inflation Reduction Act of 2022

ELIGIBLE PROJECTS

The Act provides investment tax credits for the types of renewable energy projects listed in the following chart. In addition, the costs of interconnection property for qualifying projects may also be included as long as the maximum net output does not exceed 5 MW.

SOLAR	WASTE ENERGY RECOVERY	MICROGRID CONTROLLERS
SMALL WIND ENERGY	BIOGAS	GEO THERMAL
ENERGY STORAGE (BATTERIES)	FUEL CELLS	HEAT PUMP
FIBER-OPTIC SOLAR	COMBINED HEAT AND POWER	

Source: The Inflation Reduction Act of 2022, U.S. Treasury, Internal Revenue Service

Inflation Reduction Act of 2022

FINANCING WITH TAX-EXEMPT DEBT

Since private ownership of renewable energy projects is no longer necessary to capture the full value of the federal tax credits, **local governments and 501(c)(3) organizations can now finance these projects with tax-exempt debt and still be eligible for the direct payment in lieu of tax credits.**

If a project is financed with tax-exempt debt, the direct pay amount will be reduced by 15%, or if less, the percentage of the facility financed with tax-exempt proceeds. Compared to a privately-owned renewable energy project financed with taxable debt, the ability to finance these projects with tax-exempt debt can significantly reduce the financing costs of the project even with up to a 15% reduction in the direct pay credit amount.

Is there a way to avoid the 15% reduction in the direct pay amount? Yes – Cinderella Bonds!

The compliance period for Investment Tax Credits is 5 years. During this time period tax credits are subject to “recapture”. However, following the 5-year tax credit period the project is no longer subject to tax credit restrictions, including the 15% reduction.

Cinderella Bonds - bonds that bear a taxable rate of interest for a period of time (e.g. the first five years) and then convert to a tax-exempt rate for the remainder of the term of the bonds.

Source: The Inflation Reduction Act of 2022, U.S. Treasury, Internal Revenue Service

Inflation Reduction Act of 2022

POTENTIAL FINANCING STRUCTURES

Financing Structures

The renewable energy project may be financed utilizing a variety of financing structures depending upon the type of project and the options available to the municipality or 501(c)(3) entity under state law:

- Certificates of Participation
- Energy Conservation Lease Purchase
- Revenue Bond
- General Obligation Bonds
- Certificates of Obligation

Tax-Exempt Debt - Redemption Considerations

Generally, direct pay tax credits can be deposited in the issuer's general fund and used for any legally permissible purpose. The tax credits can also be used to redeem a portion of the tax-exempt debt that has been issued for the project, in which case the debt will need to have a final maturity or an optional redemption date consistent with the expected date in which the subsidies will be received. A pledge of the direct pay tax credit to pay or optionally redeem tax-exempt debt may have arbitrage rebate consequences that should be discussed with your financing team.

Source: The Inflation Reduction Act of 2022, U.S. Treasury, Internal Revenue Service

Inflation Reduction Act of 2022

PROCESS FOR APPLYING FOR DIRECT PAYMENT SUBSIDY

IRS Form to Claim Credit

- Not yet publicly released – can only speculate

Similar Forms:

- Tax-Advantaged Bonds Interest Subsidy – Form 8038-CP

What to Expect

- Guidance is needed from Treasury to determine timing requirements for making election and filing return
- Certify to:
 - qualifying nature of renewable energy project
 - eligible basis of project costs
 - satisfaction of applicable “bonus credit” requirements and amounts
 - applicable tax-exempt financing and corresponding tax credit reduction
- Calculate and certify to applicable direct pay credit amount
- Increase net claimed direct pay credit amount for sequestration
- Provide certain supporting documentation
 - Example – Environmental Justice Allocation letter from IRS for Qualifying Solar and Wind Projects
- Sign form under penalties of perjury

Source: The Inflation Reduction Act of 2022, U.S. Treasury, Internal Revenue Service

Opportunities For Municipalities

WHAT THIS MEANS FOR MUNICIPALITIES

Investment Tax Credit Calculation Example

- Solar project constructed by a municipality:
 - Qualifying project costs: \$2 million
 - Eligible for 30% direct pay tax credit
 - \$2 million, or 100% of project costs, financed with tax-exempt debt
- Calculation of Amount of Direct Pay Credit:
 - $\$2,000,000 * 30\% = \$600,000$
- Reduction of Direct Pay Credit due to Tax-Exempt Financing:
 - $\$600,000 * 15\% = \$90,000$
- Net Direct Pay Amount with Tax-Exempt Financing:
 - $\$600,000 - \$90,000 = \$510,000$

Opportunities For Municipalities

WHAT THIS MEANS FOR MUNICIPALITIES

- 1. Municipal Ownership and Control of Renewal Energy Projects**
 - Private ownership of renewable energy projects no longer required to take advantage of the tax credits
- 2. Subsidized Project Costs**
 - A portion of the cost of the project can be subsidized through the receipt of the ITC direct payment subsidies
- 3. Tax-Exempt Financing**
 - Financing of the project can be accomplished through the issuance of tax-exempt bonds
 - Potentially lower cost financing than Power Purchase Agreement option
- 4. Gross Up Provision to Offset Impact of Sequestration**
 - Claimed direct pay credit amount increased by 6.0445% to offset expected impact of mandatory sequestration

Source: The Inflation Reduction Act of 2022, U.S. Treasury, Internal Revenue Service

Opportunities For Municipalities

PROJECT EXAMPLE:

Municipal Solar Projects

Benefits to Municipality of solar project behind the meter

- No congestion and/or transmission issues
- Provides an opportunity to stabilize 10%-20% of power supply needs
- Fixed price for a portion of power portfolio in a volatile energy price environment
- Ownership may provide a lower operating cost vs PPA model which has a higher cost of capital

Renewable Attributes

- Progressive community
- Renewable energy credits

Opportunities For Municipalities

PROJECT EXAMPLES

Municipality needs to install new substation

- The Act allows the necessary cost of adding a substation for a solar project as a qualifying expense if the project does not exceed 5MW

Distribution extension

- The cost of upgraded distribution and new lines can be added as a qualifying expense to the project cost

Energy storage

- The cost of battery installation can be cut by up to 50% as a qualifying expense

Source: The Inflation Reduction Act of 2022, U.S. Treasury, Internal Revenue Service

Case Study – City of Fredonia



Project

Construction of a 2.0 MW capacity photovoltaic facility expected to produce 4,800 MWh the first year, which is approximately 16% of the City's energy requirements.

Financing Structure

\$4,825,000 Tax-exempt Energy Conservation Lease Certificates of Participation

- 20-year term; Fixed interest rate
- Callable at any time with the proceeds of the direct payment subsidy

Tax Credits

30% anticipated tax credit (satisfy prevailing wage & apprenticeship requirements)

+ 20% potential low-income qualified benefit program (if project not placed in service prior to receipt of Environmental Justice Allocation)

= **Potential ITC direct payment subsidy of 50% of eligible project costs**

Tax Credit Reduction

15% expected based upon 100% tax-exempt project financing

Case Study – City of Fredonia



Savings to the City

Through an energy audit conducted by a third-party engineer, the solar project is anticipated to **reduce the City's overall energy costs** by providing the City with a firm source of energy and corresponding **reduction in the City's exposure to the daily energy market.**

The energy consultant also certified that the energy savings associated with the project will offset the costs of financing the project over the life of the project with savings of approximately **\$3.4MM** on a P50 basis, and over **\$2.6MM** on a P99 basis.

Comparison with PPA model:

With City ownership and tax-exempt financing, the **City saved almost \$2MM** over the life of the project compared to an alternative PPA option.

P50 = predicted generation from a solar farm in an "average" weather year
P99 = predicted generation in the "least-sunny" year in a century

Presenter

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Nate Summers joined UMB Bank, n.a. Capital Markets Division in 2022 as senior vice president. Nathan's primary focus will be on UMB Bank's continued growth in the state of Iowa and Nebraska.

Nate has over ten years of public finance experience. Prior to joining UMB Bank, Nate served clients as a Public Finance Banker at D.A. Davidson & Co. where he developed custom financing solutions to municipal debt issuers. As well as determining the feasibility of refinancing outstanding debt by providing financial modeling, monitoring and analysis. During this time, Nate was involved in a \$53 million transition with Des Moines Independent Community School District.

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Nate earned a Bachelor of Arts degree in business administration and finance, with a minor in economics from Northwestern College in Orange City, Iowa. He holds the FINRA series 7 and 63 licenses.

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