

## Public Power Utilities and the Inflation Reduction Act

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The Inflation Reduction Act of 2022 (IRA) provides powerful new tools for public power utilities to tap low cost clean energy. Under the IRA public power entities like **municipal** and **state-owned utilities** have new opportunities to lead the clean energy transition, reducing costs for ratepayers and constituents, and driving a new, local clean energy economy. Under the IRA, towns and cities can support local investments in residential and commercial efficiency, electrification, and distributed generation, **build and own** clean energy, and improve public infrastructure. Forward-thinking public power agencies can use these programs in concert to reduce costs, increase resiliency, bring new economic opportunities and tax base, and keep their communities competitive in the new energy economy. For municipal utilities, every dollar of savings that can be harnessed through IRA programs frees up critical dollars for education, fire and police services, critical infrastructure, and other municipal programs.

### Direct Pay Tax Credits for Clean Energy

Historically, not-for-profit utilities have been unable to take full advantage of clean energy tax credits such as the production tax credit (PTC, [Section 45](#)) and investment tax credit (ITC, [Section 48](#)), which appealed to corporations with tax liability. Under the IRA, non-taxable utilities (like municipal utilities) can tap each of the IRA's tax major tax credits as “elective payments”—payments from the IRS equivalent to the amount of the tax credit, issued after a clean energy project is in service.

These **direct pay tax credits are substantial**, and far more flexible than previously available credits. For projects constructed before 2025, the **production tax credit (PTC)** provides [\\$26 for every MWh](#) of **wind, geothermal, or biomass**-based energy produced, for the first ten years the facility is in operation (assuming that developers meet minimum labor standards). In certain parts of the country, this credit might pay for a [quarter or more](#) of the cost of a wind project (over a twenty year life).

The PTC tax credit is enhanced by significant bonuses - a **10% adder** for projects sourced with US steel and components, and another **10% adder** for projects that are built at brownfields, in communities where a fraction of the population worked in the energy community but suffers above national average unemployment, or in census tracts with a closed coal mine or coal generating electric unit. Current estimates are that a substantial fraction of US land area (potentially up to [50%](#)) would qualify as an energy community. Projects qualifying for both bonus adders could see an incentive of \$31/MWh.

After 2025, the PTC is replaced by a similar program (45Y) with yet more flexibility, allowing **any** zero emissions technology to claim the production tax credit—or a direct payment for non-profit utilities like public power and cooperatives.

The **investment tax credit (ITC)** allows entities to reclaim 30% of the cost of **solar, battery storage, and geothermal**, as well as combined heat and power, microgrids, and small wind

turbines, from the IRS for projects installed prior to 2025. After 2025, the ITC is replaced by a similar, but more flexible provision (48E) that allows entities to claim an investment credit for any zero emissions technology. Like the PTC, the enhanced version of the ITC has substantial bonuses available for projects sourced from domestic steel and components, and projects sited at “energy communities.” In fact, domestically-sourced projects sited in energy communities would have **half of their costs** paid by the tax credit. Rural electric cooperatives can claim this incentive as a direct payment from the IRS.

The ITC holds yet another **near term bonus** for smaller scale solar and wind energy projects built on Indian land or in low-income communities. Small-scale solar and wind energy projects less than 5 MW, built in low-income or tribal communities, and commencing construction in 2023 or 2024 can take another 10% bonus - or a 20% bonus if part of a qualified low-income building.

Importantly, the tax credit is reduced by up to 15% (i.e. from 30% to 25.5%) if [tax-exempt bonds](#) (potentially including municipal bonds) are used to finance eligible projects.

**How it works:** Utilities and other entities that build eligible clean energy claim the credit on their tax forms after the clean energy is put into service (i.e. producing energy).

**What it means for public power:** Direct pay for clean energy is transformational for public power and other not-for-profit utilities. Previously, public power utilities needed to use power purchase agreements to tap into solar and wind energy, and had almost no access to low-cost battery storage. By owning these resources, municipal utilities can quickly improve their balance sheets with assets (the clean energy) rather than liabilities (the power purchase agreements), which in turn allows them to take older uneconomic plants out of service. Many municipal utilities serve or can build projects in the IRA’s “energy communities,” including industrial brownfield redevelopment. Cities may be able to partner with clean energy developers to reduce the cost of rooftop solar in conjunction with affordable housing development.

**When utilities can get started:** Now. While the IRS will likely issue guidance in early 2023, and must have firm rules in place by early 2024, those guidelines will generally *not* bar entities from claiming the credit following the plain text of the statute - **and the credits are available immediately.**

**What it means for planning:** Public power agencies and municipal utilities should assume that the cost of wind, solar, and storage is reduced by either the level of the PTC, or at least 30%. Utilities should also seek to identify eligible energy communities that would both benefit from the economic development, and reduce project costs. In the near term, public power and municipal utilities should seek to assess if there are energy community project areas eligible for the incremental bonus, or projects that might benefit from the very near-term low-income community incentive. It is imperative that utilities and cities looking to harness these incentives meaningfully engage potentially impacted or benefiting communities before substantive planning.

## Home and Commercial Tax Credits for Electric Upgrades

The federal government has historically offered tax credits that help homeowners and businesses weatherize, improve efficiency, and build local clean energy. These tax credits have been extended and enhanced in the IRA, complementing utility demand-side management and efficiency programs. With the Section 25C tax credits, taxpayers can claim credits for non-business heat pumps and other advanced HVAC, electrical upgrades, and building shell improvements; with Section 25D tax credits, taxpayers can claim credits for residential solar electric and solar heat, geothermal heat pumps, batteries, and small wind turbines. In addition, the 45L credit provides a rebate for new and retrofit homes that meet certain energy efficient criteria. Businesses can claim 179D deductions for energy efficiency improvements.

**How it works:** The 25C, 25D, 45L, and 179D tax credits are made available directly to taxpayers—i.e. the homeowners and businesses that pay for retrofits or clean energy installations. Like most other tax credits, these credits are non-refundable, meaning that taxpayers can only take credits until their tax liability is zeroed out. Rewiring America has set up a [user-friendly calculator](#) to help residential taxpayers determine eligibility for tax credits, rebates, and other IRA-based programs.

**What it means for public power:** Demand-side management programs, including both passive efficiency improvements, as well as energy management through storage and controllable appliances offer enormous and highly cost-effective opportunities for utilities. Utilities that are able to help customers reduce energy consumption while maintaining or improving service reduces the cost of serving all customers, and allowing customers to generate and store energy on-site can reduce the cost of distribution system improvements, reduces the need for utility-scale generation, and makes customers more resilient to storm, fire, or flood outages.

**When utilities can get started:** Utility customers are eligible for these tax rebates now. Public power utilities can start working with their customers to make sure customers are aware of both the tax credits and utility rebates or incentives.

**What it means for planning:** Utilities that pursue aggressive demand-side measures and distributed generation and storage can reduce costs to their customers, and potentially defer or avoid grid-scale generation. Utilities should consider deploying programs and incentives to pair with these credits that reduce costs, energy burden, and emissions, and improve resiliency.

## \$4.75 Billion in Greenhouse Gas Reduction Grants from EPA

Section 60114 of the IRA creates a novel, and **very short term**, competitive grant program for EPA to reduce emissions. Available to states, tribes, municipalities, and air pollution control agencies (or a combination), the grants are relatively open-ended. To qualify, an eligible entity must first develop a greenhouse gas emissions reduction plan, the requirements of which will be specified by EPA no later than May, 2023. EPA is appropriated \$250 million in grants to help eligible entities develop robust plans, and \$4.75 billion that it can competitively award to then implement those plans. The grant dollars are available only through September 2026.

Municipalities, municipal utilities, county governments, and state-chartered public power agencies may be able to use these grants to both develop and then fund emissions reduction plans, from building or transportation electrification to electric system transition. These grants may be most effectively deployed for programs that are incremental, but complementary to utility programming, such as for electrification, efficiency, rooftop solar, or distributed storage.

**How it works:** EPA will likely issue guidelines for potentially eligible entities to signal their interest in developing emissions reductions plans (which can include programs, policies, and/or projects). Under the Clean Air Act, in which this program resides, “municipalities” include cities, towns, counties, and other bodies created by States, which may include state public power agencies. However, EPA will need to identify which entities are eligible to apply for planning grants. The statute implies that a recipient needs to have received a planning grant to be eligible for a larger implementation grant. EPA can start issuing the competitively awarded implementation grants as of fiscal year 2022, and is directed to assess plans on their ability to reduce greenhouse gas emissions, and how they benefit low-income and other disadvantaged communities.

**What it means for public power:** This sleeper of a program could end up being absorbed entirely by fast-acting states with aggressive decarbonization goals, or could provide a serious booster to states and municipalities with ready-made transition opportunities. Municipal utilities and public power agencies with deep decarbonization potential in either their electric generation fleet or through building or transportation electrification may be able to make a convincing case that the program will provide incremental emissions benefits at a low cost per ton, while supporting disadvantaged communities.

**When utilities can get started:** Public power utilities should start working on potential plans that could benefit from EPA grant dollars, recognizing that EPA guidance on grant priorities is still forthcoming. While it is not clear the extent to which EPA will award more than each state’s pro-rata share of the granting dollars, utilities and eligible entities with robust plans that clearly meet EPA’s requirements may be able to make a stronger claim under the statute’s prioritization criteria.

**What it means for planning:** Until EPA issues further guidance, its granting program might be considered incremental to robust utility decarbonization plans. Public power entities might identify how additional non-ratepayer dollars could accelerate programs parallel to utility work, such as electrification, locally-based clean energy, or deeper efficiency programs. Utilities should seek to identify how additional dollars could spur deeper emissions reductions, in preparation for potential grant applications.

## Energy Infrastructure Reinvestment (EIR) Loans from DOE

The IRA creates a new, **but also short term**, Department of Energy (DOE) loan program specifically for the purposes of allowing uneconomic fossil energy infrastructure to be repurposed, retooled, or replaced. [Energy Infrastructure Reinvestment \(EIR\)](#) or Section 1706 loans are **guaranteed loans** that can be offered to utilities (or other fossil infrastructure owners) at a much lower rate than corporate bonds.

The EIR program is designed to help the owners of fossil-based energy infrastructure (and particularly utilities) finance one of the trickiest parts of transitioning: handling legacy debt and environmental obligations. Through 2026, DOE is authorized to extend low-cost loans to utilities, generation owners, and owners of other aging or defunct fossil infrastructure to refinance higher cost debt and equity, buy replacement power, or finance novel uses for the infrastructure.

DOE's loan programs have traditionally been designed for very large projects—in the tens to hundreds of millions of dollars. If implemented correctly, the DOE EIR loan program might provide an additional avenue for financing fossil to clean transition, specifically supporting stranded asset costs, legacy pollution costs (such as coal ash cleanup), and even transmission upgrades.

**How it works:** DOE is working to rapidly gather input and propose a rulemaking, with the hope of initiating the program in early 2023. DOE's Loan Program Office has a well-established loan application process, and is working to clarify guidelines for application. DOE loans can take longer than a year to reach approval: therefore, the office is **already** [asking for applications](#) and consultations, even before the rulemaking process is finalized.

**What it means for public power:** Cooperatives that have recently closed fossil generators, might cost effectively replace fossil generation, need to unwind costly fuel contracts, or need to clean up coal ash or other fossil-generated waste can now approach those projects with federal support, using very favorably priced loans. Unlike other debt, these loans are specifically tailored to pay down stranded asset costs.

**When utilities can get started:** Now. DOE is calling for consultations and applications today. Projects with a clear value proposition (i.e. that achieve the purposes of the program, and achieve clear long-term emissions reductions) are likely to help set DOE's direction in establishing guidelines.

**What it means for planning:** Planners should look at refinancing high-cost debt with DOE's lower cost loans for fossil transition programs. For example, a utility planner looking at coal retirement should examine a case in which the remaining asset balance of the coal plant is replaced by a low-cost loan when the plant is retired, and the resulting customer savings. Based on the type of program being proposed, and the entity applying, DOE's guaranteed loans are typically 0.375% to 2.0% above Treasury rates. Since this program is not targeted at "innovative" or speculative technologies, and will be offered to well-established utilities, the loan cost is expected to be very low.

## USDA Low Interest Loans for Renewable Energy

One underappreciated program created by the IRA are **low-interest and potentially forgivable loans** from USDA for renewable energy procurement, including solar, wind, geothermal, biomass, hydroelectricity, and storage. The IRA allocates \$1 billion to USDA Section 317 loans (after Section 317 of the Rural Electrification Act, or 7 U.S.C. §940g). These loans provide financing for renewable energy at a 'municipal bond rate.' However, unlike other USDA programs, the program is not restricted to rural utilities, and renewable energy procured with these loans may serve both rural and non-rural customers. In addition, the IRA directs USDA to develop guidelines for up to 50% loan

forgiveness, and or potentially more in some circumstances. Depending on USDA's implementation of this provision, Section 317 loans may provide an opportunity to procure renewable energy at a very low cost of capital, with the potential for partial loan forgiveness.

**How it works:** Historically, Section 317 loans have been available to any utility that serves rural customers. Given the breadth of most utility service territories and the expanse of [rural census tracts](#), many utilities could be eligible. USDA is expected to issue guidelines in early 2023.

**What it means for public power:** Public power utilities typically have access to relatively low cost loans because they are generally considered low-risk. However, the 317 loan program may provide an opportunity for yet a lower cost of capital, and include terms of forgivability. Since the renewable energy authorized by this program does not need to specifically serve rural customers, the program can be tapped by municipal and public power agencies without substantial rural presence.

**When utilities can get started:** Section 317 loans are an established program at USDA, but the agency can be expected to issue guidance in early 2023 on the modifications directed by the IRA. Utilities and potential borrowers are encouraged to engage with the agency on implementation.

**What it means for planning:** While it may be too early to plan for the use of Section 317 loans as modified by the IRA, public power utilities should assess the value of obtaining low-cost loans for renewable energy, and be prepared to apply once guidelines are established.

### Taking the Next Step - Public Power Planning and the IRA

The Inflation Reduction Act of 2022 is easily the most substantial change in financing for rural electric cooperatives in decades: the IRA makes available not only enormously beneficial tax credits and bonuses, but provides direct funding and refinancing for cities and public power utilities to accelerate the transition to clean energy, and save customers money.

But these tax credits, grants, and loans are not simply self-implementing: utilities need to take proactive steps to garner the economic opportunities of the IRA. Municipal and public power utilities must revisit pre-IRA plans, and assess how the value of their portfolio changes with tax credits, grants, and new loan opportunities. Transparent plans will help public power agencies compete for EPA grant dollars and DOE refinancing dollars. The opportunities of the IRA, and their immense value to public power agencies, are far too valuable to be ignored.

Public power utilities should engage internal or external planners to start building [portfolios of clean and reliable energy](#), assess how the tax credits and grant and loan programs can benefit their customers over the long run, and work to socialize the value of those programs as soon as viable.

