

Energy Opportunities for Connecticut Municipalities in the Inflation Reduction Act

The Inflation Reduction Act ("IRA"), signed into law on August 16, 2022, was the largest climate change/clean energy investment bill ever passed in the United States. While private industry celebrated IRA's passage, it also includes significant benefits, both direct and indirect, for municipalities. Especially when applied in concert with the various Connecticut energy incentive programs, IRA provides an opportune moment for municipalities to consider local energy resilience and clean energy projects.

Investment Tax Credits – Solar

Prior to IRA, direct participation in solar development was, for the most part, available exclusively to private industry. This participation was incentivized primarily by one main federal benefit offered to the solar industry – an investment tax credit ("ITC") of up to 30% of project costs. Without a federal income tax bill, an entity could not take advantage of the ITC, and in most circumstances, it was too valuable an incentive to leave out of project economics, meaning that it was not of any use to municipalities.

IRA resets the amount of the ITC so that it is stabilized at 30% for at least the next 10 years, **and allows certain tax-exempt entities, such as municipalities, to receive cash instead of tax credits.** This is accomplished through "direct pay," a refund process which paves the way for municipalities to build their own projects. Furthermore, the direct pay provision is not restricted exclusively to solar and can be applied to other renewable projects as well. Nearly 50% of the components for these projects, however, must come from companies that have manufactured them domestically.

IRA also makes benefits beyond the ITC or direct pay available to developers and municipalities. For example, the ITC/direct pay rate can be increased depending on how a clean energy project is sited. A project sited on certain types of brownfields could earn an additional 10% on top of the 30% ITC. Projects sited in low-income communities bring another 10% and even an additional 20% if the project is part of a qualified low-income residential building project or a qualified low-income economic benefit project. Further, if the steel, iron, or other manufactured products that comprise the project are produced in the United States, an additional 10% could be available. Theoretically, one could have more than half of project costs covered with the direct-pay/ITC option if the project were sited and built in a certain way.

It is important to keep in mind, however, that in order to be eligible for even the base 30% benefit, the project must meet certain prevailing wage and apprenticeship requirements.

In any event, IRA provides a new and improved path forward for towns that want to build their own solar projects. Even if a town would prefer to simply act as a landlord and delegate the project's process to a developer, it could demand better economics than before.



Funding for this project is provided by the U.S. Department of Housing and Urban Development through the Community Development Block Grant National Disaster Recovery Program, as administered by the Connecticut Department of Housing.

Storage, Clean Hydrogen and Other Zero Emission Technologies

Batteries are useful to towns for multiple reasons. They can serve as a backup supply for renewable energy generators - supplying power, for instance, during a part of the night when the solar power is not operating, or in the event of a power outage. They also can add to grid resiliency, by supplying "peak power" - power on hot and humid mid-summer days when the grid is strained due to the high volume of power being used. In circumstances where "peak power" is required, batteries obviate the need for inefficient, costly, and polluting gas peaker plants, which are often located in environmental justice and low-income communities.

Depending on the need, batteries could also potentially replace diesel-fueled generators as backup power when a downed wire disconnects a facility from the grid, as may happen during storms. The ITC is no longer a barrier to stand-alone battery storage projects. Previously, battery storage had to be coupled with a solar project in order to be eligible for the ITC. Now the IRA applies the ITC to standalone battery projects, and there is a direct pay option for municipalities if they choose to own and operate the battery themselves. Like the solar benefits included in IRA, the value of the tax credit to a battery project can increase if certain siting and other factors are met. Further, under IRA, projects of other technology types may qualify for the credits if the facility's carbon emissions are at or below zero. There are also new tax credits for hydrogen-based projects (fuel cells).



Interconnection Costs

Most energy projects in Connecticut are under 5 MW in size, meaning that they are considered smaller projects. IRA provides a few boosts for these smaller projects, one of the more significant being the application of the ITC to interconnection costs. Costs that a town or private developer is required to pay the utility to tie a project into the grid are termed "interconnection costs." These costs can be prohibitively expensive and are often the reason projects fail. IRA's application of the ITC to the price of interconnection means that these problematic costs are reduced by 30%. In theory, lowering these costs will allow towns to reallocate those savings to other improvements. One example would be to bury the lines that connect a generator to the grid and put the equipment on a cement pad instead of hanging it from new utility poles, thus insulating them from severe weather events that often take down these overhead lines.

Microgrid Controllers

IRA put in place a new 30% tax credit for qualified microgrid equipment. To qualify, the equipment must be part of a microgrid, with a generating capacity of between 4 and 20 MW, capable of operating both in connection with the electrical grid, and independently of the electrical grid. These systems enable both energy resiliency in the event of grid outages and can lower costs in the "peak power" situations mentioned above.

Incentives to Watch

Other incentives CIRCA is watching as guidelines and EPA regulations are developed:

Greenhouse Gas Reduction Fund

Another valuable IRA provision is its greenhouse reduction fund. This fund, among other things, will make money available to help establish state and local financing programs that deploy low- and zero-emission technologies. For example, it will make \$7 billion available for state, local, and nonprofit programs to directly install zero-emission distributed technologies in low-income and disadvantaged communities. This fund also includes \$2 billion for state, local, and nonprofit programs to install zero-emission vehicle charging infrastructure.

Climate Pollution Reduction Grants

IRA also makes funds available for specifically climate related pollution mitigation. \$5 billion will be available to states, municipalities, or air pollution control agencies for greenhouse gas air pollution planning and implementation grants. \$250 million of this amount will go to Greenhouse Gas Air Pollution Planning Grants, while \$4.75 billion will go to Greenhouse Gas Air Pollution Implementation Grants. Funding for both planning and implementation grants will be awarded to at least one entity in each state to develop programs, policies, measures, and projects that will help reduce air pollution caused by greenhouse gases. The structure and administration of this grant will need to be further defined through the EPA's regulatory process.

Environmental and Climate Justice Block Grants

Under IRA, \$3 billion will be available as block grants to fund environmental justice projects for disadvantaged communities. Eligible projects include those that address environmental harms in low-income and disadvantaged communities related to pollution monitoring, investment in zero-emission infrastructure, transportation emissions reduction, climate resiliency, pollution prevention, and deployment of low- and zero-emission energy technologies. The structure and administration of these block grants will need to be further defined through the EPA's regulatory process.

For more information on IRA and its benefits for Connecticut municipalities, please contact Kirt Mayland, Energy Fellow, CIRCA, kirt.mayland@uconn.edu

Photos courtesy Norwich Utilities and Kirt Mayland and Louanne Cooley, University of Connecticut



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