



SOLAR IN CT

# NON-RESIDENTIAL SOLAR

*Why does it make good business sense?*



[PACEcleanenergy.org](http://PACEcleanenergy.org)



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# WHAT OPTIONS EXIST FOR NON-RESIDENTIAL SOLAR?



The **Non-Residential Renewable Energy Solutions (NRES)** program is a tariff-based incentive program for solar installations up to 5 MW on commercial, industrial, municipal, school, and agriculture land.

There are three size categories of projects: **large** (1 to 5 MW), **medium** (> 200kW and < 1 MW); and **small** (200 kW or less).

The program is capped annually at 100 MW for all projects. Each year, developers with large and medium-sized projects must submit bids and be selected in order to participate in the program. Because demand exceeds the cap, many projects must be deferred to later years.

The other option for non-residential solar projects is to use **Rate 980**. This may be a good option for commercial and industrial enterprises that are energy-intensive and would not have much electricity to sell back to the grid. Any excess energy they do produce is sold to the utility at a wholesale price.

# WHAT ARE THE BENEFITS OF SOLAR?



Solar installations offer many benefits for commercial, industrial, and agricultural properties. Here are some of the key advantages:

1. **Cost Reduction and Efficiency:** Solar power significantly diminishes grid reliance, especially in high-consumption properties, resulting in substantial energy cost savings.
2. **ROI and Long-Term Financial Gains:** Despite initial costs, solar provides a remarkably swift ROI and ensures enduring savings on electricity expenses. Installations can be depreciated.
3. **Excess Energy Revenue Stream:** Businesses may sell surplus electricity back to the grid, creating an even more lucrative income source.
4. **Lucrative Tax Incentives:** Governments offer a range of incentives, effectively reducing initial installation expenses.
5. **Environmental Impact and Sustainability:** Solar energy is exceptionally clean and sustainable, resulting in a reduced carbon footprint.
6. **Enhanced Energy Independence:** Solar significantly reduces reliance on the grid.
7. **Boosted Property Value:** Properties with solar panels not only sell faster but also at substantially higher prices.
8. **Powerful Marketing Tool:** Installing a PV system demonstrates an unwavering commitment to sustainability, which resonates strongly with eco-conscious customers.
9. **Price Stability and Financial Security:** Solar shields against future energy price hikes, providing added financial security.
10. **Resilience with Storage Solutions:** Provides a robust energy source during outages, ensuring critical operations continue seamlessly. Installations can be part of a microgrid.
11. **Effective Peak Demand Offset:** Helps effectively mitigate high demand charges, resulting in greater overall cost reductions.
12. **Agricultural Reliability and Independence:** Provides a reliable power source for operations such as irrigation, and heating, reducing dependence on diesel generators or grid power.

# WHAT INCENTIVES ARE AVAILABLE?

For business owners, non-profits and others who lease the solar panels, there are no upfront costs and the financial gains begin as soon as your array is connected to the grid.

Purchasing a PV solar system has a much larger up-front cost. However, it allows you to take advantage of the state solar program as well as federal incentives.

The federal government offers two tax credits for projects that are under 1 MW or which meet Treasury Department labor requirements.

1) **The Investment Tax Credit (ITC)** - a 30% tax credit, for non-profits this amount may be taken as a direct payment

OR

2) **The Production Tax Credit (PTC)** - a per kilowatt credit for the first 10 years of operation

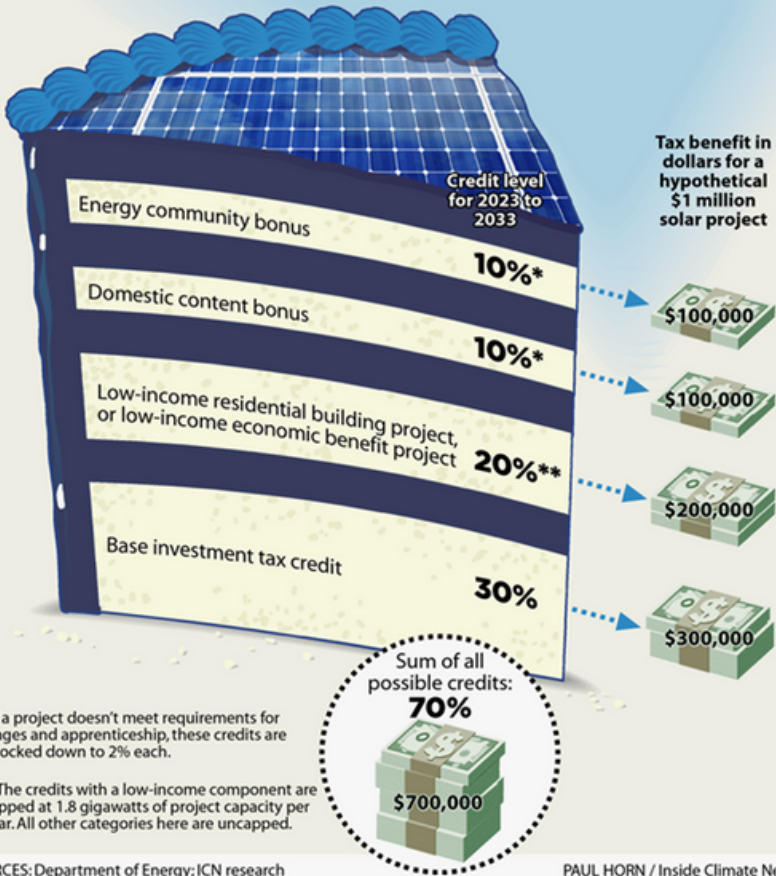
In addition, the cost of a solar installation can be depreciated and serve as a further reduction of a business's taxes.

There are additional bonuses for projects in energy communities and low-income residential buildings, as well as for those that use domestically produced materials. As the graphic on the next page shows, a project could receive a credit of up to 70%.



## The Clean Energy Layer Cake


The Inflation Reduction Act extends and expands the investment tax credit to cover various types of clean energy projects. But the 30% ITC is just the base layer of a larger set of tax credits if a project can meet qualifications designed to encourage high wages and U.S.-based manufacturing, among other priorities.



From time to time, the federal government creates grant programs that relate to energy efficiency and renewable energy, such as [USDA - Rural Energy for America Program \(REAP\)](#).

All open federal grants may be found on [grants.gov](https://www.grants.gov).





# WHO IS TAKING ADVANTAGE OF THESE PROGRAMS?

**Companies, municipalities, nonprofits, schools and agriculture are taking advantage of solar to reduce energy costs, supply revenue and provide resiliency.**

## **Companies**

Though not visible from the ground, solar installations top hundreds of CT businesses, from small businesses to large chain stores like Walmart and Target. Because it makes such good business sense, demand for solar has outpaced available slots in the NRES program.

## **Municipalities**

Nearly a third of CT towns, have installed solar on municipal properties, saving taxpayers thousands of dollars annually. Other towns are reaping the benefits of renewable energy by purchasing electricity produced at offsite solar projects.

## **Schools**

The [2023 Solar on Schools](#) report indicates that over 300 CT schools have solar. The cumulative capacity of these arrays exceeds 65MW.

## **Nonprofits**

Houses of worship and other nonprofits with large electric bills are making the most of the new federal tax incentives to improve energy efficiency and add solar.

## **Agriculture**

Solar provides a reliable source of income for farmers and helps to supplement earnings from agriculture.

# HOW CAN WE ENCOURAGE COMMERCIAL SOLAR?

There are many ways that communities can encourage commercial solar adoption:

- Install solar on local schools and municipal buildings
- Work for improved state legislation on energy-related issues such as energy data collection, building stretch codes, and improved building efficiency standards
- Streamline local solar permitting
- Encourage participation in the Energize CT Small Business Energy Advantage Program
- Run a C-PACE campaign encouraging clean energy options for local businesses

By tailoring these strategies to the unique characteristics and needs of towns and communities, local leaders can create an environment that encourages the adoption of commercial solar.

Businesses interested in solar should contact their local utility or a reputable installer.

## RESOURCES

- [Non-Residential Renewable Energy Solutions Program](#)
- [NRES Fact Sheet](#)
- [Federal Solar Tax Credits](#)
- [Energize CT Small Business Energy Advantage Program](#)
- [CT Greenbank C-PACE and CT Greenbank Solar Map for Cities and Towns](#)
- [PACE Solar Canopy Potential in CT](#) and [2023 Solar on CT Schools Report](#)

For more information, visit [PACEcleanenergy.org](https://PACEcleanenergy.org)

