

QUICK START GUIDE EVALUATING A NEW YORK CITY BUILDING FOR COMMUNITY SOLAR (CS)

The following quick start guide was developed by Sustainable CUNY to help guide building owners who are considering investing in Community Solar or Community Solar + Storage.

This work was authored by Sustainable CUNY under Subcontract No 2020-10343 as part of the Solar Energy Innovation Network, a collaborative research effort administered by the National Renewable Energy Laboratory under Contract No. DE-AC36-08GO28308 funded by the U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy Solar Energy Technologies Office. The views expressed herein do not necessarily represent the views of Alliance for Sustainable Energy, LLC, the DOE, or the U.S. Government.

□ 1: SUNLIGHT ACCESS

In general, a viable CS system needs a minimum of 3,000 square feet or more of unobstructed space. Good sunlight access means no taller buildings or big trees directly South, East, or West of the roof. Some East or West shading can be ok. Any shading to the North is fine.

□ 2: ROOF CONDITION

Installing a solar photovoltaic (PV) array on a roof that is generally less than 10 years old is optimal. If it is time for a re-roof, doing it at the same time as the solar installation may make financial sense as you could be eligible for the federal Investment Tax Credit (ITC) on the cost of the roof as well as the solar, which could save up to 26% of the cost of the roof. As most roof damage is caused by UV light, which is blocked by the solar panels once they are installed, solar installations can extend the life of any roof.

□ 3: SOLAR CAPACITY

Knowing how much solar can be installed on the roof is a critical step in the decision-making process. Some building owners may have already been approached by traditional solar installers and may know the solar capacity of their roof. If the capacity is unknown, the [nysolarmap](#) mapping tool can give you an estimate of the solar potential for your building.

□ 4. CS PROJECT ECONOMICS & INCENTIVES

Once a building owner or advisor has determined the solar capacity of their building, this information can be input into the Smart DG Hub [Evaluating Distributed Generation Economics \(EDGE\)](#) modeling tool. EDGE was adapted from Elevate's Community Solar Pro-Forma tool in partnership with Lawrence Berkeley National Laboratory. EDGE provides building owners a dashboard that shows the potential returns on an investment for a CS system in New York City. Building owners have options as to their participation with a CS installation. For example, building owners may select to act as only the host of the CS systems, while others may want to be the host and system owner. [CS Use Cases](#) The dashboard is designed to assist the building owners making these decisions by showing the incentives and the financial returns, including the payback period, of the various ways to participate in a CS system. The EDGE dashboard displays the estimated data for five building types, including a warehouse and an office building. Each building type has a different energy use profile within the dashboard. Each of the building types makes assumptions regarding the energy use of the building based on US Department of Energy (DOE) reference buildings.

□ 4: SUSTAINABILITY GOALS

Many property owners or their tenants have existing goals under the general category of corporate social responsibility in the sectors of sustainability or community engagement. CS and CS+S can be an excellent vehicle for contributing to these goals as solar helps to green the grid, while the community aspect of CS provides an opportunity for community members who may otherwise not have access to solar power. Other benefits of installing a CS or CS+S installation includes potentially complying with emerging local laws, contributing to the creation of local jobs and improving local air quality.

□ BONUS: ADDITIONAL INCENTIVES

Utilities such as Con Edison recognize the ability of distributed generation to help with congestion at specific locations within the utility grid. In order to encourage deployment of these resources, New York State compensates CS systems through Value of Distributed Energy Resources (VDER). Additionally, several special programs have been set up within specific geographic areas with added utility incentives for their value to the grid. These areas offer additional incentives to build CS projects, and include [Locational System Relief Value \(LSRV\) zones](#), and the [Brooklyn Queens Demand Management Demand Response Program \(BQDM\)](#).