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CUNY Adds LI Solar Layer to NY Solar Map with Support from Sierra Club and PSEG Long Island

CUNY Built Map Puts Solar Tools in Hands of Long Island Residents, Solar Developers and Government Officials

(9-28/2017-Melville NY) Long Islanders now have access to a sophisticated internet-based tool that evaluates the solar energy generating potential of any site or roof on Long Island. Sustainable CUNY of the City University of New York (CUNY) worked with experts at Hunter College's Center for Advanced Research of Spatial Information (CARSI) to add the 'Light Detection and Ranging' (LIDAR) layer to the existing NY Solar Map and Portal.

At a workshop hosted at PSEG Long Island's Melville facility, officials demonstrated how this new layer provides solar potential information using the LIDAR and an interactive calculator. Long Islanders can enter their address and current electricity costs, and determine the size, cost, available incentives and projected savings of a solar array. The Solar Map and Portal also allows users to receive quotes from NYSERDA-qualified solar installers and sort contractors based on their offerings and the number of projects they have completed within a local jurisdiction.

The NY Solar Map and Portal was initially built by CUNY with support from Governor Cuomo's NY Sun Initiative and the U.S. Department of Energy (DOE) SunShot Initiative. Suffolk and Nassau Counties provided the LIDAR data that was used to define each building roof and characterize open spaces. The Long Island LIDAR layer was supported by PSEG, the Long Island Sierra Club, Renewable Energy Long Island and the Suffolk County Executive's Office, all of which worked with Sustainable CUNY to initiate and fund the expansion.

*"Sustainable CUNY is proud to have worked for over a decade with municipalities and utility leaders on Long Island to play a significant role in reducing the costs of going solar," said **Tria Case, University Director of Sustainability and Energy Conservation**. "The new LIDAR layer on the NY Solar Map and Portal for Suffolk and Nassau Counties is a robust interactive tool that puts data and information at the fingertips of all Long Islanders, ultimately boosting economic development and strengthening local renewable energy production."*

*"The addition of this solar map will enable residents, neighborhoods and towns to see what solar potential exists in their area, which will help drive planning for solar and for community solar projects in the future. This group of utility and environmental leaders has been invaluable to making Suffolk County a trailblazer in solar power," said **Theresa Ward, Deputy County Executive and Commissioner of Economic Development and Planning** which includes the Suffolk County Energy Office.*

*“The PSEG Long Island service territory already has the largest deployment of residential rooftop solar in New York State,” said **Mike Voltz, Director of Energy Efficiency and Renewables at PSEG Long Island.** “By providing our customers across Long Island and the Rockaways, who are considering going solar, with this level of technical and economic information, it will further support the penetration of residential and commercial solar energy and will help improve the environment for all.”*

*“We are very excited about the launch of the Solar Map for our region, said **Lilia Factor, Esq., Energy Chair of the Sierra Club, Long Island Group.**” The Long Island Sierra Club has supported this project from the start by providing funding and working closely with its partners at Sustainable CUNY and across Long Island. We hope that the new tool will spur the installation of many additional rooftop and community solar systems and thus continue and expand the development of clean distributed energy resources to provide for our electricity needs and still preserve our scarce open spaces.”*

nysolarmap.com

The NY Solar Map and Portal is a publicly available interactive online tool where users can estimate the solar energy potential for every building or open area in New York State. LIDAR takes users to a deeper level of understanding with a remote sensing method to accurately measure the elevation of every building, tree, and surrounding topography in the areas of New York City, Westchester County, and now, Long Island. Solar capacity estimations for the rest of the state are provided using satellite imagery and historical weather data.

Sustainable CUNY worked with the CARSI Center to add the LIDAR components that estimate solar potential using a computer model that calculates the incoming direct and diffuse solar radiation for every square meter. The model is based on latitude, the position of the sun, and multiple historical weather datasets that were calibrated using the performance of deployed solar systems, and, most importantly, shading. Shading information is generated from a 3D model derived from the LIDAR data. Integration with local land-use data allows users to click on a building or search for an address and find its solar potential.

The NY Solar Map also features a ‘draw solar’ tool that can be utilized with and without LIDAR anywhere in the state. Users are prompted to draw a box around the prospective location, such as a rooftop in Albany, a parking lot on Long Island or a brownfield in western New York. Then, the Map integrates historical weather and solar radiation data from the National Renewable Energy Lab (NREL) to estimate the solar production of that area. The “Solar Calculator” provides information customized to the selected area, including estimated incentives, savings, and payback.

What separates the NY Solar Map and Portal from other solar mapping tools is the integration of local program information and educational resources. It is truly the “One-stop Shop” for solar in New York State. The “In Your Area” tool provides direct connections to Solarize group purchasing programs, technical assistance providers, and other local initiatives, all tailored to the location of the Map user. It is intended to serve a wide range of users including residential and commercial customers, solar installers, municipal officials and utilities. The “Solar Connect” feature allows users to receive quotes from NYSERDA-qualified solar installers and sort contractors based on their offerings and the number of projects they have completed within a local jurisdiction. The “Solar Statistics” and “Solar Layers” features allow users to visualize how New York’s solar market is growing as a whole and within each municipality. Charts display how prices for solar installations are falling. Users may also view installed systems across the state. Installers can access maps of municipalities which have adopted one of New York’s Unified Solar Permits and review other helpful information. All of these resources are wrapped into a customizable Portal containing educational resources created by Sustainable CUNY and its partners. There are interactive Solar Guides for installers to learn how to file permits in local municipalities, and there are simple steps for homeowners searching for how to get started with solar.

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