

## Solar Carport Financing

Reference Site: UMASS: <https://www.umass.edu/dcm/campus-solar> ; weblink: <https://www.umass.edu/sustainability/climate-change-energy/solar/15000-solar-panels-5-buildings-2-parking-lots>

UMass Amherst selected Brightergy LLC, Kansas City, MO, in a competitive procurement process to implement, through a Power Purchase Agreement (PPA), (<https://www.brightergy.com/>), a national energy company with offices in Charlestown, Mass. Brightergy, through its partnership with Sol Systems (<https://www.solsystems.com/>), arranged for project finance, ownership and ongoing maintenance of the solar installations with the owner of the project, ConEdison Solutions (<https://www.coned.com/en>) for up to 20 years. The university will buy all of the electricity from the \$16 million project for direct use on campus through a power purchasing agreement.

UMass Amherst did not use capital funds to build the solar array systems. As the developer, Brightergy worked with Washington DC-based Sol Systems and New York-based Con Edison to finance the cost of all equipment, installation and operations associated with the solar arrays.

The work included installation of over 14,600 LG PV panels, each rated between 310 and 365 watts as well as the use of Yaskawa-Solectria Inverters. The PV panels were installed on the roofs of five existing buildings and on new, steel canopy parking structures manufactured by Solaire Generation built on two existing asphalt parking lots at the UMass Amherst campus. The canopies have a 13-ft 6-inch clear height to allow cars and trucks to park under them.

Financial Benefits: Saves UMass Amherst roughly \$3.6 million in net present value of avoided electricity and forward capacity market costs over the next 20 years.

Brightergy LLC : <https://www.brightergy.com/> ,

Sol Systems: <https://www.solsystems.com/>

Over the last eight years, Sol Systems has delivered more than 650MW of solar projects for Fortune 100 companies, municipalities, universities, churches, and small businesses. Sol now manages over \$650 million in solar energy assets for utilities, banks, and Fortune 500 companies.

<https://www.solsystems.com/blog/2017/08/31/sol-systems-and-amazon-unveil-new-jerseys-largest-rooftop-solar-array/> : newly operational 7.5MW solar energy system, one of the country's largest arrays on a single rooftop.

Con Edison: <https://www.coned.com/en/our-energy-future/renewable-energy-systems> : We're working to generate half of New York's electricity with solar or wind by 2030.

<https://www.coned.com/en/our-energy-future/our-energy-projects>

Inverters: <https://www.solectria.com/> ; leading U.S. commercial PV inverter manufacturer, introduced its new Solectria SLX line of American made inverters for commercial and utility-scale applications. Solectria Renewables, LLC was established in January 2005 with corporate offices (including manufacturing and design of its three-phase central inverters) at 360 Merrimack Street, Lawrence, Massachusetts. It was a spinoff from Solectria Corporation, an electric and hybrid vehicle company which was founded by Anita Worden and James Worden in 1989, to focus solely on the development and sales of grid-tied photovoltaic (PV) inverters.



