

Japan's First Renewable Energy University Installs SolarEdge Rooftop Systems for Maximum Energy Production and Safety

As more campuses look to decrease their carbon footprint by generating clean and renewable energy, the Chiba University of Commerce took up the challenge to become the first 100% renewable energy university in Japan.

Yokohama Kankyo Design was hired to install a solar energy system on the university's rooftop, and worked with Krannich Solar to install SolarEdge's DC optimized inverter solution primarily for its advanced safety features, maximized energy production, and design flexibility.



- / Chiba University of Commerce, Japan
- / Installer: Yokohama Kankyo Design
- / Distributor: Krannich Solar Japan
- / Capacity: 450kWdc/370kWac (divided amongst 10 separate rooftop systems)
- / Installation Date: March 2019
- / Inverters: 15 x SE25K-JP
- / Power Optimizers: 673 x P730
- / Modules: 1346 x LG NeON2 A5 335NIC-5



Comprehensive Safety

The university accommodates hundreds of students and faculty members, making PV safety an obvious concern and a top priority when selecting the most suitable PV system. With the SolarEdge solution complying with the most advanced international safety standards, both the university officials and installer were able to enjoy full peace of mind when making their decision.

The SolarEdge SafeDC™ architecture is designed to automatically de-energize high voltage from the DC cables to a touch-safe voltage when the inverter is off or disconnected from the grid. This provides protection for the university's faculty as well as to installers, maintenance personnel, firefighters, and property.

Optimized Energy Production

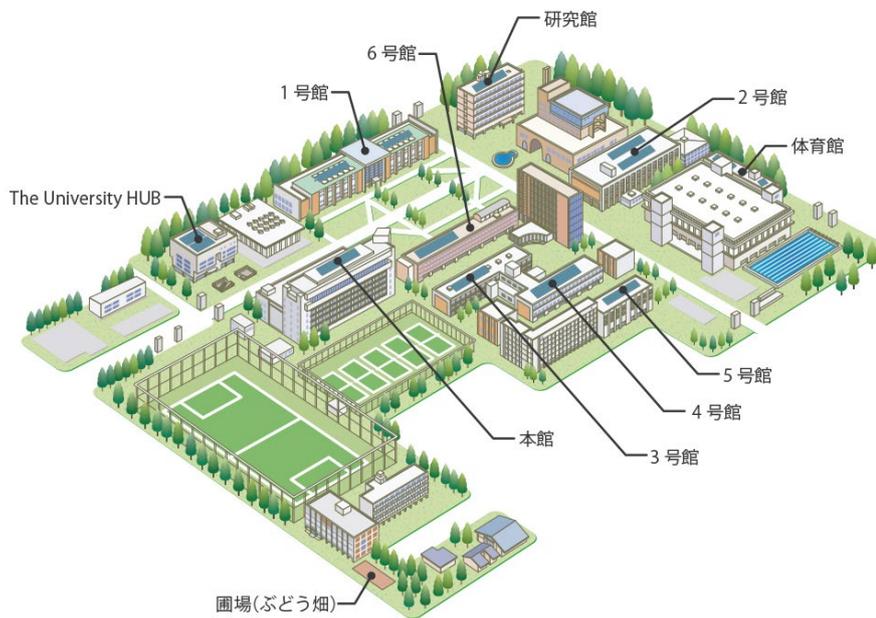
Shading caused by adjacent buildings, electricity poles and other factors create module mismatch, a familiar challenge in PV system design. However, the SolarEdge DC optimized inverter solution is able to minimize shade-related power losses by maximizing the output of each individual module and therefore increase the energy yield of the entire system over its lifetime. This results in faster ROI and increased electricity savings for the university.

More Energy by Design

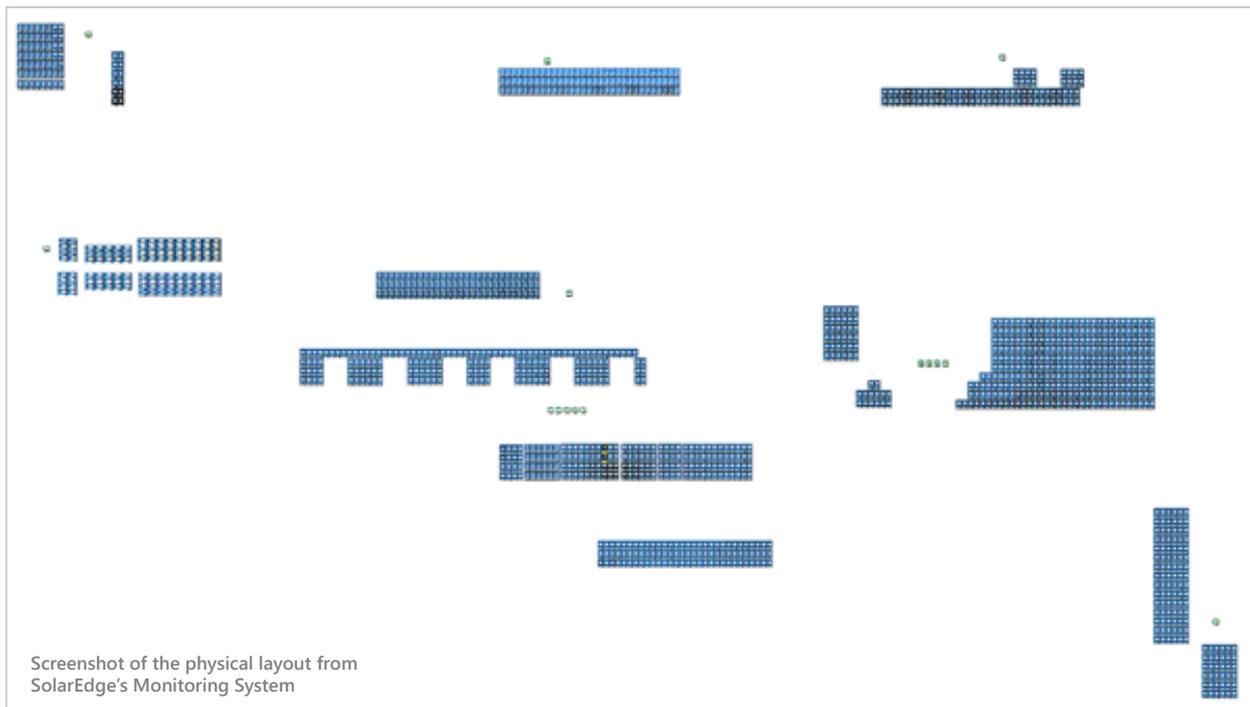
To maximize the system's capacity and to generate more energy, an east/west tilt racking structure was fitted on the rooftop. Generally, this mounting solution cannot be utilized with a traditional string inverter due to design limitations. However, SolarEdge power optimizers maintain a fixed string voltage at the inverter's input and allows multi-orientation and significantly longer strings that can easily adapt to the rooftop layout, and generate higher revenue from the system.

Full Visibility of System Performance

By using the SolarEdge monitoring platform, free for 25 years, the university can monitor real-time system performance anytime and anywhere. This information may be made accessible to faculty members, so they can compare daily, weekly, monthly, and yearly data to past performance and historical weather conditions. This helps them learn about the environmental benefits of going solar, such as how many truckloads of CO2 emissions were saved, the equivalent number of trees planted, and number of light bulbs powered.



Chiba University campus map: The SolarEdge PV system comprises 10 separate rooftop installations of 20-115kW



Screenshot of the physical layout from SolarEdge's Monitoring System