

Global fabric supplier deploys the SolarEdge solution for a 1.5MW PV installation to meet renewable energy goals and earn income from long-term investment

Evertex Fabrinology partnered with Billion Watts Technologies to construct a 1.5MW solar installation over 20,474m² of roof on the factory in Taoyuan, Taiwan. Utilizing the SolarEdge solution, which incorporates module-level optimization and monitoring, Evertex expects to improve energy efficiency, improve system safety, and maximize power generation for both long-term financial and environmental benefits.

Evertex, a global leader in professional knitting, dyeing, finishing and export services, supplies many well-known outdoor clothing brands in Europe and North America (including Arc' teryx, Asics, Jack Wolfskin, Norrona, Peak Performance and Rab). The installation of the PV system reinforces the company's core corporate social responsibility values of achieving sustainable development through environmental protection, renewable energy, and green technology. The company aims to harvest an estimated 1,587,000 kWh of annual energy, and reduce 8.28 million tons of annual carbon emissions.



Installation Date:
December 2017

Evertex Fabrinology Ltd.
Luzhu District, Taoyuan
City, Taiwan ROC

Capacity: 1.5MW

Modules:
4995 x AUO Optronics
60 cell 300W

Inverters:
8 x SolarEdge
SE27.6K + 65 x SE33.3K

Power Optimizers:
4605 x SolarEdge P600



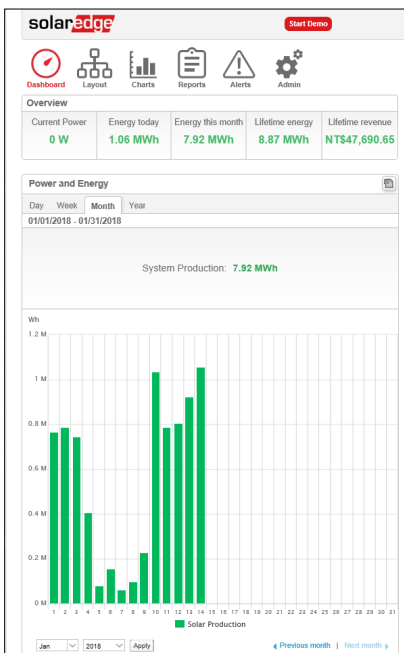
View of PV modules installed on the Evertex factory roof

Large solar installations have unique management and maintenance requirements. For instance, equipment failure anywhere on the installation can be difficult to isolate and detect, leading to longer downtime and loss of power generation. In addition, module-mismatch, which arises from a variety of sources such as soiling or shading, manufacturing tolerance, and uneven module aging, could lead to a decrease in the energy yield of the entire string, creating power losses. In order to overcome this, Billion Watts advised installation of a SolarEdge system with its module-level DC power optimization and monitoring solutions. SolarEdge power optimizers increase power output by constantly tracking the Maximum Power Point (MPP) of each individual module. This module-level optimization eliminates power losses created by module mismatch so that only the affected or underperforming module is producing lower power, while the remaining modules remain at their highest energy yield. Furthermore, the power optimizers monitor the performance of each individual module, and communicate performance data to the SolarEdge monitoring platform for real-time, enhanced, cost-effective maintenance.

Taiwan has a high risk of natural disasters such as typhoons and earthquakes, and fire safety is a major concern with any PV installation. Firefighters and other first responders called to a blaze commonly cut off AC power to the burning building as a safety precaution. If the building has a PV installation however, the PV modules continue to generate high DC voltage, even if the system is not actually connected to the AC grid. SolarEdge power optimizers have a built-in SafeDC™ safety feature that minimizes such fire safety risks. When SolarEdge power optimizers are connected, modules operate only as long as a signal from the inverter is constantly renewed. If the inverter or the grid is shut down, the power optimizers are designed to automatically reduce the string wire voltage to a touch-safe level of 1 V_{DC}.

Through SolarEdge deployment, Evertex has successfully realized the goal of achieving renewable energy, and carbon reduction for a sustainable environment.

“Staying innovative in the textile supply chain has always been a key focus for Evertex Fabrinology. Bringing added value to outdoor and sports apparel businesses, especially through green manufacturing and renewable energy consumption, ensures a sustainable business model in the global supply chain. Utilizing the SolarEdge DC optimization solution, in collaboration with Billion’s energy management module, helps to facilitate easy operation of the PV installation.”
Tony Yeh, CEO of Evertex Fabrinology Limited



Solar production as viewed in the SolarEdge monitoring platform