

CASE STUDY



South Burlington Solar Farm



LOCATION: off Dubois Drive, South Burlington, Vermont

DATE COMPLETED: June 2011

DEVELOPER: Chittenden County Solar Partners

SYSTEM SIZE: 2.1 megawatts, 382 Series 24 AllSun Trackers

PV MODULES: Astronergy 230 Watt

INVERTERS: SMA SunnyBoy 6000 US

ELECTRICITY GENERATED: Estimated 3,080,000 kWh/year

VALUE OF SOLAR ELECTRICITY PRODUCED: \$924,000/year @\$0.30 per kWh

DATA MONITORING: AllEarth Renewables Energy Production Reporting System, available online - Site ID# 316

NOTEWORTHY

The 2.1 megawatt South Burlington Solar Farm is the largest solar installation to-date in the state of Vermont. Spread over 25 acres, it is also the largest distributed solar tracker farm in North America with 382 AllSun Trackers. The project was completed in less than a year from the start of permitting to final commissioning.

The touch of an iPhone by Vermont Governor Shumlin — which brought the last of the solar trackers into position perpendicular with the sun— marked the commissioning of the project on July 19, 2011. This highlighted the innovative wireless and GPS technology designed to make the solar panels on the pole-mounted trackers follow the sun throughout the day, producing as much as 45 percent more energy than fixed solar installations.



“We’ve innovated and refined our AllSun Tracker so it can be affordably used to power homes or businesses and at the same time make up a utility-sized farm like this project in South Burlington,” said David Blittersdorf, president and CEO of AllEarth Renewables.

The solar farm was created as part of Vermont’s feed-in-tariff program and will sell an estimated 3 million annual kilowatt hours (kWh) to Vermont’s Sustainably Priced Energy Development (SPEED) Program. The SPEED program encourages the development of renewable energy resources in Vermont, as well as the purchase of renewable power by the state’s electric distribution utilities. The Vermont Energy Act of 2009 established a \$0.30 per kWh default price for the solar feed-in-tariff which enabled developers of solar power purchased through the SPEED program to recover their costs plus earn a reasonable return on their investment.

Instead of using one centralized inverter for the entire project, each tracker has its own inverter. Utilizing distributed inverters helps prevent overall power losses that can arise when using a single centralized inverter and also saves labor and DC wiring costs. Through this innovative application, each inverter adjusts to the

highest possible power output and efficiency of each tracker across the system. Operation and maintenance expenditures are also expected to be reduced over the life of the system, increasing the overall value of the energy yield.

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AllEarth Renewables, Inc. is a Vermont company that specializes in the design, manufacture and installation of grid-connected solar renewable energy systems. Our goal is to lessen dependence on nuclear and fossil fuels and reduce greenhouse gas emissions. We manufacture affordable, turn-key products that harness the power of the sun for your home and business while creating sustainable, well-paying jobs.



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