

# Mount St. Mary's University Graduates to Solar Photovoltaic Power Farm Energy Solution

Project produces yearly energy use equivalent to that of over 1,700 average US homes



## DistributedEnergy



### Challenge

Founded in 1808, Mount St. Mary's University—known as “The Mount”—is the second oldest Catholic university in America. Grounded in the liberal arts, the university weaves its Catholic identity throughout the campus community, with over 2,000 students being enriched by both faith and culture through rigorous academics. Mount St. Mary's also offers students the opportunity to get involved in 17 Division 1 athletic teams, and more than 80 clubs and intramural activities.

In 2007, Mount St. Mary's University then-President signed the American College & University President's Climate Change Commitment (ACUPCC), pledging to reduce the greenhouse gas emissions of the university with the goal of ultimately becoming “carbon neutral.” Then, two years later, the State of Maryland announced Generating Clean Horizons, an initiative designed to jumpstart renewable energy projects throughout the state. Between the pledge and the state's initiative, the university sought a solution to determine how to pursue such renewable energy projects.

### Solution

Constellation decided to participate in the Maryland Energy Administration's Generating Clean Horizons Initiative and proposed the development and construction of a new solar farm in Emmitsburg, MD. Mount St. Mary's 1,400 acre campus provided the ideal location that would allow for a larger project to serve the State of Maryland's needs and a smaller project to serve the university. Constellation was chosen by both Mount St. Mary's and the state to head the project, while First Solar, a manufacturer of solar photovoltaic (PV) power systems, provided engineering, procurement and construction services. Construction work for solar-covered carports was performed by Union Electric and Baja Construction.

Under 20-year power purchase agreements (PPAs), the renewable energy produced by the 100 acre solar farm—one of Maryland's largest and set on the school's east campus—is purchased by the University System of Maryland, the Maryland Department of General Services and Mount St. Mary's University. A 16.1 megawatt (MW) segment of the project produces approximately 21.8 million kilowatt hours (kWh) of energy annually for the State of Maryland. A smaller 1.68 MW installation generates about 2.1 million kWh of energy annually for Mount St. Mary's, which equates to two-thirds of the annual energy needed to power the school's PNC Sports Complex and east campus.

Not only does the solar farm help to meet the school's climate change commitment to ACUPCC, but it will also help to save The



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## Highlights

### Mount St. Mary's Direct Project

- Approximately 2.1 million kilowatt hours (kWh) of electricity expected to be generated annually
- 3,582 SolarWorld 250W modules installed
- 9,972 First Solar® Series 3™ 80W thin film modules utilized
- About 1,476 metric tons of CO<sub>2</sub> per year expected to be saved—equivalent to the emissions from approximately 312 cars

### Awards

- Solar Power Generation USA's 2012 Best Solar Project
- 2013 Photovoltaic Project of Distinction Award from the Solar Energy Industries Association and the Solar Electric Power Association

### State of Maryland Project

- One of Maryland's largest operational solar installations
- 21.8 million kWh of electricity expected to be generated annually—equivalent to the annual load of over 1,600 average US homes
- 201,420 First Solar® Series 3™ 80W thin film modules installed
- About 15,321 metric tons of CO<sub>2</sub> per year expected to be saved—equivalent to the emissions from approximately 3,236 cars
- 20-year power purchase agreements (PPAs)
- System is expected to help the State of Maryland achieve clean energy goal of producing 20 percent of its electricity with renewable resources by the year 2022

Mount in energy costs by setting a fixed price for power produced by the solar facility.

Following the completion of the project, in 2012 Constellation received the distinction of Best Solar Project of the year at the Fifth Annual Solar Power Generation USA event held in Newport Beach, CA. In addition, in 2013 the Mount St. Mary's solar farm was one of three solar projects to win the Solar Energy Industries Association and the Solar Electric Power Association's Photovoltaic Project of Distinction Award, which recognizes major achievements in US solar energy.

### From the Customer

"The solar facility developed by Constellation Energy helped introduce Mount St. Mary's University to the renewable energy revolution, and has served as both an educational resource for the community, and as a daily reminder of our responsibility to be good stewards of our limited natural resources."

—Mount St. Mary's University President Timothy Trainor, Ph.D.

### Work With a Trusted Energy Solutions Provider

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