



C&I SOLAR SUCCESS STORY: BLACK HILLS STATE UNIVERSITY IN SOUTH DAKOTA

Black Hills State University (BHSU), nestled in Spearfish, South Dakota, near the Wyoming border, is currently embarking on an ambitious mission to be powered by 100 percent renewable energy. The plan, called the President's Climate Commitment, aims to make the school 100 percent renewable by 2030.

To meet its sustainability goals, this masters-level state university with more than 3,800 students has been hard at work installing rooftop PV systems on many of its buildings.

How BHSU's New PV System Came Together

In 2015, BHSU and GenPro Energy Solutions, a solar project developer, were partnering on an educational seminar for commercial businesses that want to implement sustainability. Through the development of that program, BHSU began to explore PV systems with GenPro Energy as a means to reach the school's bold renewable energy goal.

When it came time to implement the most recent project, GenPro Energy turned to Trina Solar's C&I Solutions. This smart solution's bundled system design of high-quality modules, inverters and racking optimizes the PV system's performance. This means a lower levelized cost of energy (LCOE) and quicker return on investment (ROI) for BHSU.

One of the project challenges came early in the process, primarily with BHSU finding a way to finance the project that created savings for the customer while staying within South Dakota's legislative boundaries. Trina Solar's C&I Solutions helped ensure the project delivered maximum value and met the customer's goals.

For this behind-the-meter PV system, Trina Solar provided 2,124 TallMax M modules. Each of these monofacial modules can provide up to 400W of power. The Tallmax M is one of the industry's most trusted solar panels as they help reduce failures, improving system safety and performance. All Trina modules came with MC4 connectors, allowing contractors to match Tigo's rapid shut down devices and easily construct strings of adjacent panels together by hand.



Trina's high-efficiency modules come with a 12-year product warranty and a 25-year performance warranty.

The modules are connected to string inverters supplied by CPS. Using PanelClaw's clawFR racking allowed for faster build time with a no-tool module installation and a single bolt hardware kit. The clawFR also allowed for more design options, all without sacrificing the racking's reliability.

Trina's high-efficiency modules come with a 12-year product warranty and a 25-year performance warranty. The CPS inverters carry a 10-year product warranty, while the PanelClaw racking has a 25-year product warranty. These warranties help ensure the project stays on track and that the entire PV system can achieve expected performance goals during the installation's lifetime.



Project Overview:



END CUSTOMER:
Black Hills State University



LOCATION:
Spearfish, SD



PROJECT DEVELOPER:
GenPro Energy Solutions



SYSTEM TYPE:
Behind-the-meter
roof mount



SIZE:
~ 800kW



PRODUCT:
Trina TALLMAX modules,
CPS Inverters,
Panelclaw racking



No. OF MODULE::
2,124 TALLMAX PV
modules



COMPLETION/
COMMISSIONING DATE:
June 2020

How Trina Solar's C&I Solutions Helped Deliver Project Success

Trina's C&I Solutions utilizes an all-in-one model for seamless component procurement that eliminates the need for EPCs to manage multiple vendors. By engineering the design and handling the procurement process, Trina's C&I Solutions ensured equipment interoperability during the install and interconnection. One-stop shopping also reduced the chances for problems and delays in the project.

Now, the addition of more solar PV panels to BHSU's campus buildings brings the university much closer to its goal of being 100 percent renewable. Along with a few other solar PV systems that came online last year, the school is now on track to generate 1.3 MWh of power annually, and the campus will be powered by 78 percent renewable energy. BSHU anticipates a savings of more than \$100,000 annually from all of its solar installations.

This solar PV project is also the first large roof mount behind-the-meter installation in the State of South Dakota.

Trina's C&I Solutions team helps make it easier for project stakeholders to meet deadlines, streamline any project and maximize PV system value for end users. Want to learn more about how Trina Solar's C&I Solutions optimizes commercial solar projects?

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