Case study

Powerful Partnerships Drive Solar Project Success

PV pioneers Terrasmart and ReVision Energy install 80% faster than industry average

Led by Terrasmart project manager Ron Dawkins, a solar project in Maine leveraged years of successful collaboration to deliver a smart and efficient installation — reducing complexity and shaving up to 42 days off the construction timeline.

Background

When an abandoned gravel pit in Hampden, Maine was converted into a solar farm, there was a lot of work required to get the site PV-ready. Thankfully for the Terrasmart team, its development and EPC partner, ReVision Energy, already had performed thorough site work well ahead of kicking off construction for The Wishcamper Companies, Inc., the investor and owner of this 6.77-MW project.

The 25-acre site contained huge piles of rocks, mountains of soil, sheer cliffs, extensive weeds, and shrubbery up to two and a half feet tall. ReVision Energy cleared roughly three acres of land and graded most of the site. Adding to its manpower, ReVision deployed multiple excavators, bulldozers, and even a forestry mulcher on the entire site to grind up the copious stumps, roots, and sticks before breaking down any remaining organic material with a harley rake.



Image provided by ReVision Energy

This extensive civil work made all of the difference for the efficient construction to follow. Terrasmart's Dawkins commended ReVision Energy's close attention to detail and solar professionalism. **"ReVision did an outstanding job preparing the site so that we could get the job done fast,"** he said. **"We didn't need to jump across trenches or work around civil crews and that let us expedite our processes to perform a faster install without being on top of other subcontractors."**

While there are many factors that contribute to success on rugged, northern terrain like that found on the Hampden site, the strength of the partnership between Terrasmart, ReVision, and Wishcamper — alongside Terrasmart's tried-and-true foundation and racking system as well as its expert mechanical installation — was a winning formula.

Solution

Known for its smart engineering, tough components, and agility in the field, Terrasmart brought brains and brawn to the Hampden job. Various teams delivered a synchronized solution, including:

1. Designers, whose combined 130 years of solar experience enabled them to value-engineer a cost-effective custom solution that **maximizes energy production** in Maine's frigid northern snow and wind conditions.

2. Site surveyors, whose proprietary system **accelerated installation velocity** and data reporting.



Image provided by ReVision Energy

3 In-house drillers, who brought their seasoned eye to the location a week before materials were delivered to ensure every hole would be drilled precisely and accurately.



Image provided by ReVision Energy

4 Installation crews, who stepped in at the start with everything needed for success, including a job trailer, equipment, restrooms, and materials storage.

Emphasizing safety and field training, Terrasmart **swiftly and efficiently performed every aspect of the job**, strategically staging material throughout the field to minimize efforts required for the build.

Terrasmart's exclusive ground screws made for a solid foundation with their unique ability to penetrate rocky soils, eliminating **100% of the refusal risk** inherent to traditional pile foundations in unknown soil conditions and saving numerous man hours and costs.

Innately adaptable and designed to work in any soil condition, Terrasmart's GLIDE Agile racks **increased site efficiency up to 36%** with less hardware, integrated electrical bonding, and built-in wire management.



Image provided by ReVision Energy

Brian Byrne, ReVision's commercial project manager, could not have been more pleased with Terrasmart's solar speed. **"It would be an understatement to say that we were impressed with Terrasmart's efficiency on this project,"** he said. **"From the initial pre-construction meeting to project close-out, it has been a most pleasant experience. I have never witnessed such an efficient installation in all my years of building solar projects. Everything was completed in a clean, organized, safe and professional manner."**

Result

Between the excellent site prep by ReVision and Terrasmart's industry-leading efficiency, the Hampden project set new records. Terrasmart added manpower during the racking installation to expedite the process, completing the work in just six weeks instead of the three months typically allocated for a project of this size — **80% faster than industry average.**

Average mechanical installation times for similar projects are based on the following industry benchmarks:

Screw Installation	
Avg industry install time	**Terrasmart install time**
125 units per day	275 units per day
Terrasmart advantage: 120% more screws per day	

Racking Installation	
Avg industry install time for a 7 MW project	**Terrasmart install time**
11 – 12 weeks	6 weeks
Terrasmart advantage: 80% faster saving 5 weeks	

> **We were able to install 2,506 screws in nine days with four guys,"** Dawkins noted. **"That efficiency was possible because we had full access to the entire site. We didn't have to work around other subcontractors so there was no interruption of our flow of work and sequence. And having the site so well-prepared ahead of time let us expedite our work."**

Terrasmart design engineers praised the smooth cooperation and collaboration that streamlined the project's completion. ReVision saw the Terrasmart team as an extension of its own. The seamless communication and close collaboration resulted in substantial schedule and budget efficiencies.

To ensure the project was as cost competitive as it could be, the Terrasmart and ReVision teams worked together to execute commodity purchases that secured the optimal pricing and substantial cost savings.

Fast and cost-efficient, the Hampden site demonstrates the power of partnerships and collaboration. The Wishcamper Hampden project will offset energy usage for multiple Maine municipalities and school districts reducing their utility bills and saving taxpayers money. Communities benefiting from this project include: College of the Atlantic, the Deer Isle/Stonington School District, the Town of Blue Hill, and the Bangor Water District.

> **Partnering with ReVision Energy on the Hampden solar energy project is a winning move for College of the Atlantic. The clean, renewable energy generated by this project will bring the college much closer to our goal of a fossil fuel-free campus while contributing to regional sustainability and smart economic growth,"** said David Gibson, Director of Energy at College of the Atlantic.





Image provided by ReVision Energy

Wishcamper is a Maine-based company investing in local Maine solar arrays that benefit Maine municipalities, businesses, and residents.