A RELIABLE LIGHTING SOLUTION FOR CANADA'S LARGEST SOLAR SITE

In rural Alberta, extreme cold and a lack of electrical infrastructure led the Travers Solar Project to solar lighting for reliable, low-maintenance perimeter security.

LOCATION
Alberta, Canada

APPLICATION
Perimeter & security

PRODUCT
34 x UP2

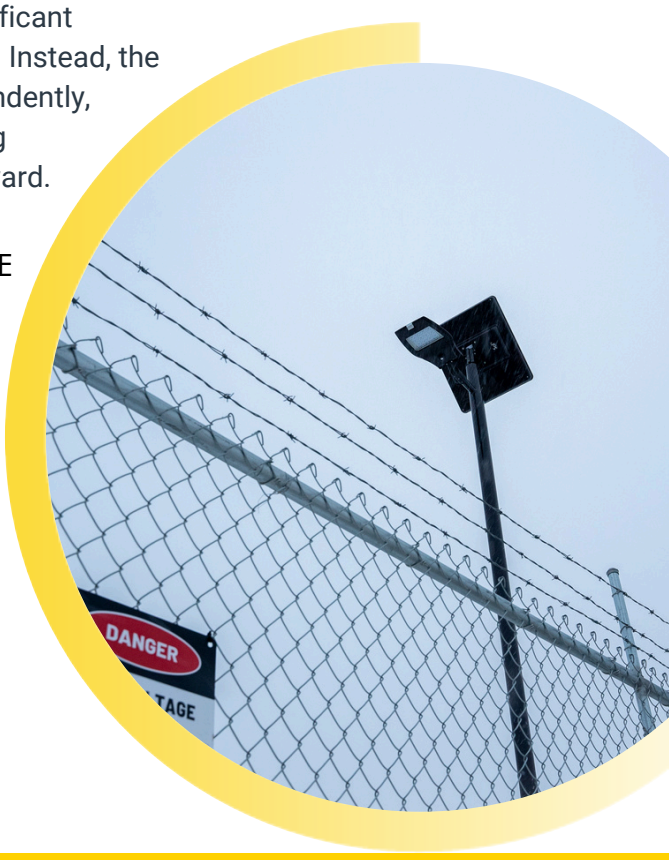
Located on privately owned cultivating and grazing lands in Alberta, Canada, the Travers Solar Project stretches across more than 3,300 acres, making it the largest solar installation in the country. With dozens of gated access points along its perimeter, the site required reliable lighting to support nighttime security and safety, but its remote location and sheer size posed a challenge.

Extending grid power to each access point would have required significant trenching, material, and coordination, driving up cost and complexity. Instead, the project team looked for a lighting solution that could operate independently, perform reliably year-round, and install without disrupting the existing infrastructure. Solar quickly emerged as the most practical path forward.

LIGHTING REQUIREMENTS FOR A VAST, REMOTE SITE

Greengate Power, the project owner, required lighting at multiple perimeter entrances to operate from dusk to dawn at a low level, then increase output whenever motion was detected. Each fixture needed to function independently from the solar farm's own power generation and avoid added infrastructure that could complicate construction or long-term maintenance.

Durability was also critical. Located north of the 50th parallel, the site regularly experiences winter lows of −4°F (−20°C). Any lighting solution would need batteries and controls designed specifically for cold-weather operation—along with a robust warranty to ensure long-term confidence.



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A SOLAR SOLUTION FOR NORTHERN CLIMATES

Sol supplied 34 UP2 solar lighting systems equipped with motion sensors. Each self-contained unit combines a steel pole, dual solar panels, a high-density NiMH battery, and a high-performance LED fixture—eliminating trenching, wiring, and grid connections.

The UP2 system is engineered to perform in challenging conditions, using adaptive lighting algorithms to manage energy and deliver reliable dusk-to-dawn illumination year-round. Its modular design also simplified installation, allowing crews to deploy systems quickly across the expansive site.

System reliability played a key role in the decision. Every UP2 unit is factory-tested before shipment, and Sol's 10-year warranty provided additional assurance for a project of this scale.

RELIABLE LIGHTING FOR CLEAN ENERGY INFRASTRUCTURE

Today, the UP2 systems provide consistent, energy-efficient perimeter lighting for the Travers Solar Project—supporting site security while aligning with Alberta's broader goals to reduce greenhouse gas emissions and phase out coal-powered generation.

Beyond its environmental impact, the project demonstrates that solar lighting can meet rigorous performance demands in remote, cold-weather locations. For engineers and specifiers designing infrastructure in challenging conditions, Travers stands as proof that solar lighting isn't just viable—it's a dependable, long-term solution.