

PARKING LOT  
LIGHTING

**Location:** California, USA

**Client:** California Energy Facility

**Products used:** EverGEN™ 1520 Solar LED Lighting with BetaLED™ LEDway™ fixtures

**Overview:** California is one of the greenest states in the US and its focus on environmental protection includes aggressive mandates on implementing renewable energies and reducing harmful emissions. A large California energy facility takes those mandates very seriously and uses solar power to maintain the highest standards of environmental protection activities.

Next to 3,000 acres of rare state park containing threatened and endangered species, the large energy facility engages in a rigorous environmental screening process for all projects that have the potential to disturb the native environment.

**Requirements:** When the facility noticed that some of its parking lots suffered from less-than-adequate lighting due to old cables and long electrical lines, it knew it would be faced with a unique challenge. Not only was the facility up against stringent environmental protection mandates, but it was also situated near federal government property, meaning permits to trench the area would involve a lengthy approvals process. Factor in limited onsite resources for the maintenance of lighting infrastructure and the challenge looked more daunting.

The facility needed a unique solution: one that would allow it to install lighting bright enough to meet the requirements for parking lot lights, but that would allow it to avoid the cost and disruption of trenching and the logistics of continued maintenance.

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The team assigned to the project examined the possibilities and weighed out the pros and cons of each solution they encountered. After completing the research and examination, the facility decided to purchase Carmanah EverGEN 1520 solar LED lighting systems. The quality of the Carmanah solution made it stand out against other solar LED outdoor lights under consideration.

**Our Solution:** Utilizing the BetaLED LEDway fixture, the Carmanah EverGEN 1520 brought high quality solar-powered LED illumination and best-in-class fixture performance to the project. In addition, the Carmanah solar solution provided light levels equivalent to AC-powered light levels and offered superior uniformity to other solar-powered LED solutions, allowing the team to install fewer lights to provide the required amount of light.

Carmanah's helpful and supportive approach to each phase of the installation also factored into the decision to purchase the Carmanah solution over other options—the energy company knew it would face numerous unique challenges and requirements throughout the project that would need the skills of an experienced team like Carmanah's.

Beyond superior quality and customer service, the Carmanah solar LED lights also addressed the unique challenges of the installation.

With no need to trench, the Carmanah solar-powered LED lights allowed the facility to avoid time-consuming and costly permit procedures and saved it nearly \$1.5 million in trenching and cabling costs alone.

The installation will also allow the facility to recognize continued cost savings. Limited onsite resources for lighting infrastructure maintenance means that crews must be dispatched from outside the area to fix and maintain equipment—a costly endeavor that will now be significantly reduced with the installation of the Carmanah EverGEN 1520. Engineered to reduce maintenance costs, the EverGEN 1520 is designed to provide five years of battery life and be virtually maintenance free.

In addition to noticeable cost benefits, the facility's environmental concerns were also addressed with the implementation of the Carmanah EverGEN 1520 solution. By minimizing the digging required for installation, the solar-powered LED lights allowed delicate parklands to remain undisturbed.

Full cutoff optics of the BetaLED LEDway fixture also allowed the facility to address the issue of light pollution: a concern of particular relevance due to the sensitive park setting.

With the initial installation of six Carmanah EverGEN 1520 solar outdoor lighting units, the California facility turned a challenging situation into an ideal solution that addressed the environmental, budgetary, and application requirements with a quality solar-powered LED product that will continue to provide cost, maintenance, and operational benefits well into the future. The facility has since purchased over 70 units to meet the needs of other parking lots on the property.

