

DENVER WATER, WATERTON CANYON - SOLAR POWERED PARKING LIGHTS



Contract Details

Contract Type:

Design/Build; Photovoltaic System;
Renewable Energy

Energy Project Size:

0.640 kW

About Denver Water

Denver Water proudly serves high-quality water and promotes its efficient use to 1.3 million people in the city of Denver and many surrounding suburbs. The utility is a public agency funded by water rates and new tap fees, not taxes. Denver Water is a proponent of environmental stewardship and joined the Climate Registry in May 2008. *Learn more at www.denverwater.org.*

About Ameresco

Ameresco, Inc. is one of the leading global energy services providers. We deliver long-term customer value, environmental stewardship, and sustainability through energy efficiency services, alternative energy solutions, supply management, and innovative facility renewal strategies. The company has over 750 employees in regional offices throughout North America. Ameresco, Inc. has constructed billions in energy projects throughout the world.

For more information about Ameresco and our full-range of energy efficiency and renewable energy solutions, please visit www.ameresco.com.



Waterton Canyon is a popular area for biking, hiking, and other outdoor activities. Ameresco Solar offered a lighting solution to reach remote areas without running costly and unsightly electrical cables.

Customer Benefits

In 2008, Denver Water undertook a project to provide area lighting in the public parking lot adjacent to the South Platte River riparian area in Waterton Canyon, a popular location for hiking, biking, and other outdoor activities. Denver Water selected solar powered area lights because this solution had lower up-front capital cost (compared to traditional utility power) as well as environmental benefits. The major cost savings came from eliminating the need to trench up and repair the parking lot, as required by traditional utility cable runs. The solar systems have the design flexibility to be relocated to provide the desired area lighting for safety and security.

Accolades

"The lights installed in the parking lot provide us with a source of green energy that are a great alternative to standard lights and trenching and are cost effective. Their design is non-intrusive and their mobility means we will not lose money if we relocate them to accommodate a new parking lot layout. Since they provide light that is softer, I think it also does not interfere with the wildlife at night and cuts down on big light pollution which could interfere with wildlife corridors."

- Terri Doolittle, Denver Water Board

Environmental Benefits

- Solar lights offset almost 1 ton of carbon dioxide emissions each year.
- Low-pressure sodium fixtures virtually eliminate the attraction of flying insects during nighttime.

Services Provided

Designed and supplied by Ameresco Solar, the lights operate all year round for 10 hours a night, and the Water Board can field-adjust this time to fit specific requirements, when necessary. Each system uses a 35-watt low-pressure sodium light fixture and sealed, maintenance free batteries, so that the systems are virtually maintenance free. The battery provides up to 10 hours of operation nightly with the capacity to operate for 6 consecutive sunless days. Each solar array provides 160 watts of charging to the batteries during peak sunlight hours. The solar modules have a 25-year warranty.

The systems were installed on DOT-rated aluminum poles and are equipped with lockable, aluminum battery/electronics enclosures. Thames Solar Electric, a Denver-area master electrician, installed the systems.

Each system was priced at approximately \$4,300, including installation and commissioning, which saved the Water Board significant funding versus trenching and repairs costs, had standard utility systems been used. The use of solar systems has also had a positive public perception for the Water Board.



In the parking area, four solar arrays supplies electricity after nightfall.

