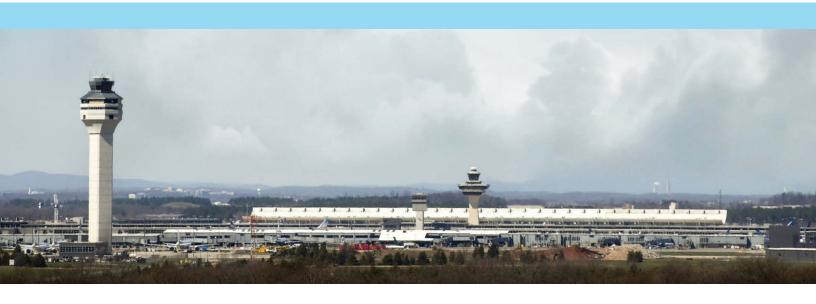


# **PROJECT REPORT**

SOLAR LED OBSTRUCTION LIGHTING FOR WASHINGTON DULLES INTERNATIONAL AIRPORT



**LOCATION** Washington D.C., USA

DATE January 2024

**CLIENT** Dulles International Airport

**EQUIPMENT** Solar Series LED L810 Obstruction Lights Low Intensity Type B

**APPLICATION** Solar Series LED Obstruction Lighting for Security Fence

#### **SYNOPSIS**

Aviation Renewables consulted in the design to provide a self-contained Solar Series LED Obstruction Lighting system for Dulles International Airport in Washington, United Sates of America. The Solar Series LED L810 Obstruction Lights are mounted on top of the fence's posts near the approach area of the airport, to increase the safety of flight operations.

## CHALLENGE

The Airport required help in finding a solar powered LED obstruction lighting system in order to reduce electrical and maintenance costs while providing a reliable and safe lighting system for flight operations. Aviation Renewables



was tasked with helping in the design of a solar powered LED obstruction lighting system that would operate reliably year round, even in the event of severe weather storms and limited sunshine for months on end.





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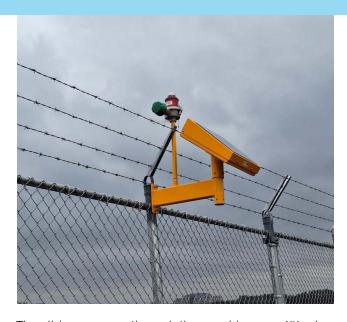
SOLAR LED OBSTRUCTION LIGHTING FOR WASHINGTON DULLES INTERNATIONAL AIRPORT

### SOLUTION

The Solar Powered LED L810 obstruction lighting system is designed to meet the photometric requirements of an FAA L-810 and ICAO low intensity Type B light, and is typically used to mark towers and other obstructions for aerial and ground navigation. The system consists of a self-contained, solar-powered, steady-burning red LED light unit that can be easily installed on any structure without the need for external power supply or wiring.

The system will be used to mark a fence near the approach area of Dulles International Airport, to increase the safety of flight operations. The solar power simplifies installation and is free to operate, reducing the environmental impact and operational costs of the airport.







The all-in-one mounting solution combines a 20W solar panel, a controller and battery box and a light mount for the L-810 light. The unit is simply bolted to the fence post, and the battery connected. It will operate 24/7 for 5 years, at which point a simple battery replacement is the only maintenance required. The Solar Series LED L810 obstruction lights are designed to respond to and combat demanding environmental conditions. Already installed and operating worldwide, Solar Series solutions continue to be a reliable solution for off grid power and LED airfield lighting.

