

SunPOWR

Solar Powered FAA Obstruction Light Systems

Application

Until recently, powering remote obstruction lights and related sensors has been expensive or problematic. 120 VAC had to be trenched to remote poles, or transformers had to be installed to step down the voltage to run lights. Ongoing costs were also high, as incandescent lights use a lot of energy and require regular servicing and replacement.

All of those limitations are addressed with new SunPOWR FAA obstruction lights from P&R Tech. Based on solar powered LED technology, these lighting systems use minimal energy, offer far better reliability, reduce maintenance expenses, and save thousands in installation costs.

FAA Advisory

The FAA Advisory Circular AC 70/7460-1K mandates all obstructions 150 feet or less be lit with a dual steady red 810 obstruction light. Towers 350 feet down to 151 feet are required to have a flashing 864 beacon, in some cases with two 810 side lights.

Energy Savings

In the past, incandescent lights required either 220 watts for the 810 lights or 1,000 watts for the 864 system. With LED lights, only 3–15 watts DC is needed to power the FAA lighting systems. This reduces the number of solar panels and batteries, as well as overall system cost. By using solar energy to power lights and sensors, the load is removed from the grid, resulting in an ideal “green” solution.

Custom or All-in-One Systems

P&R Tech offers SunPOWR systems that can be configured any way the customer wants in the field, as well as complete “all-in-one” models that bolt directly to the utility pole, ready for operation.

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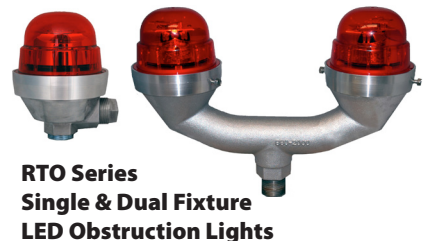
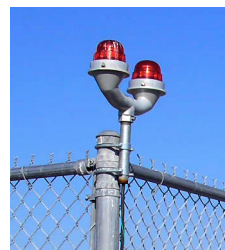
Above: SunPOWR systems can be configured for nearly any application in the field



Left: All-in-One SunPOWR systems are ready to bolt onto the pole (also available for pole top mounting)



L864 Red Flashing LED Obstruction Light



RTO Series Single & Dual Fixture LED Obstruction Lights

SunPOWR Solar Powered FAA Obstruction Light Systems

continued from front

All solar components (including the solar array and battery) and 810 LED FAA obstruction lights are mounted together on a horizontal insulator standoff arm (see photo), or a vertical pole top insulator bracket.

SunPOWR Components

Custom SunPOWR systems offer outstanding features while delivering reliable power. They consist of solar panel(s), Gel Cell rechargeable batteries, outdoor battery enclosure, solar controller, solar panel mounting frame, wiring harness, and operation/maintenance manual. Each system can be assembled to qualify for UL listing or for Class 1 Div. 2 hazardous locations. The LED lights and beacons all meet or exceed all FAA and ICAO requirements.

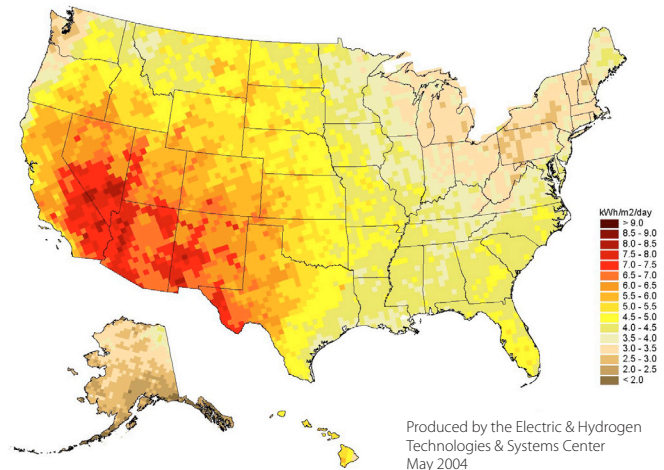
Solar Panel Selection

The size of the solar panel required depends on the area of the world where the panel is to be installed. The panel will have to be twice as large in Seattle as it would be in Arizona. The number of sun hours available will determine the size of the panel required to produce enough power to operate the lights. The size will be calculated at the factory.

Remote Monitoring

Wireless remote monitoring of system performance is available with all SunPOWR systems. Sensors at installation sites are powered by the SunPOWER array and radio linked to a central monitoring station, without need for separate IP connections.

Annual Direct Normal Solar Radiation (Two-Axis Tracking Concentrator)



LED LIGHT SPECIFICATIONS

- Threaded 3/4" or 1" bottom hub for mounting
- Resistant to shock and vibration
- Weather resistant
- Earth grounding
- Self contained wiring compartment

SINGLE RTO SERIES

Power: 1.5 watts
12-48VDC
Weight: 2 lbs



DUAL RTO SERIES

Power: 3 watts
12-48VDC
Weight: 6 lbs



L864 BEACON

Power: 15 watts
Weight: N/A

