

Solar power provides light in the darkness

Illuminating general aviation runways at night, or open grass landing fields far from the electric power grid, is becoming increasingly feasible using outdoor solar-powered lighting.

As solar lights feature their own power source, they may be attractive to small airport operators as the lights can be installed without resorting to expensive investments in trenching, cabling and repaving.

"With a public clamouring for environmentally friendly energy solutions, solar-powered area lighting is an opportunity for airports to publicly declare they are part of the green solution," says Seth Warren Rose, founder of Eneref, a group that advances ecologically sustainable building products.

One potential new candidate for general aviation airport lighting is SolarOne Solutions, which has developed a class of robust solar-powered LED poles and patent-pending MC2 control technology to power its high-lumen LED lamps. The LED Shoebox Series light fixtures are powered by photovoltaic cells that convert light energy into electrical energy. The system receives all its power from the sun making it completely independent of the electric grid.

Using common pole spacing, the Shoebox series system will meet the light levels recommended by the Illuminating Engineering Society of North America. Spaced at 40 ft (12 m) the systems can achieve the minimum 1 ft candle levels with a 1.36 average to minimum ratio.