



## KIM LIGHTING + SEPCO = PARTNERS IN SOLAR LED LIGHTING LUMINIARES

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# KIM LIGHTING + SEPCO = PARTNERS IN SOLAR LED LIGHTING LUMINAIRES

Through a strategic partnership, SEPCO and Kim Lighting, a division of Hubbell Lighting, are pleased to meet your alternative energy lighting needs from garden landscapes to streets.

## ABOUT KIM LIGHTING

Kim Lighting is the world's foremost designer and manufacturer of quality, high performance outdoor architectural and landscape lighting products. These include roadway, pedestrian, low-level and building mounted solutions for contemporary or traditional applications. Kim Lighting is committed to the advancements of solid state lighting and the future of renewable energy sources. Kim Lighting, an affiliate of Hubbell Lighting, Inc., is based in City of Industry, CA. More information is available at [www.kimlighting.com](http://www.kimlighting.com).

## ABOUT SEPCO

Recognized as the leading industrial solar lighting company in the world, our specialized products are uniquely tailored to meet the needs of today's industry. SEPCO provides unmatched industry experience, technology, and customer service. Our number one priority is to understand the unique goals and needs of each of our clients and then meet those needs. More information is available at [www.sepco-solarlighting.com](http://www.sepco-solarlighting.com).

## SOLAR

Solar panels are made up of Photovoltaic cells, electrical semiconductors most commonly made of silicon. Photovoltaic cells capitalize on the energy of the sun by harvesting light and converting it to electricity. When sunlight hits the solar panel, electrons present in the valence band of metallic atoms on the surface absorb the sun's energy, become excited and jump to the atoms' conduction bands. These electrons carry a negative charge and are attracted to a positively charged electrode completing the circuit and building up electrical voltage.

## ECONOMICS

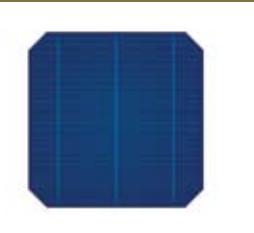
As of 2011, the cost of solar power has fallen well below that of nuclear power and is set to fall further. Nellis Air Force Base is receiving photoelectric power for 2.2¢/kWh and grid power for 9¢/kWh. Since photovoltaic cells typically last 25 to 40 years, the International Conference on Solar Photovoltaic Investments, organized by EPIA has estimated that PV systems pay back investors in 8 to 12 years. Reducing maintenance costs by improving lamp life and fixture reliability is the key component of outdoor lighting. In fact, for some outdoor applications such as roadways, lighting maintenance savings can far exceed energy savings.

In addition, solar LED luminaires are easier to install than their wired counterparts. On projects where there is no existing electrical grid, it costs less to install solar because the electrical infrastructure doesn't have to be built up. No trenching, wiring, or additional electrical components are required, and it takes less time to install our solar solution than building the required infrastructure to connect to the grid.

## HOW IT WORKS



**1** THE SUN IS THE SOURCE OF ENERGY FOR SOLAR POWER.



**2** THAT POWER NEEDS TO BE HARVESTED AND STORED.



**3** STORED ENERGY CONVERTS INTO ELECTRICAL ENERGY.



**4** ELECTRICAL ENERGY TURNS INTO LIGHT.

## SECURITY / SUSTAINABILITY / SAFETY

Solar LED lighting solutions from Kim Lighting and SEPCO offer civilian and military applications added security, huge energy savings and sustainability. Kim Lighting recognizes that there is no “one size fits all” solution for exterior lighting and that each customer requires unique considerations. As one of the largest lighting manufacturers, we are uniquely equipped to meet needs from lighting design, education, engineering installation and ongoing customer service.

## SOLAR VS. STANDARD GRID ELECTRIC:

**RELIABLE RESOURCE:** The sun is an unlimited energy source. Even on the cloudiest of days the panels still absorb the sun’s rays. Solar is the absolute of reliability,

**NO TRENCHING:** Simply add a battery pack to your existing lighting without having to dig, re-wire or tear down.

**AVAILABLE ANYWHERE:** Solar can be installed remotely in areas of direct sunlight to provide light to locations without sunlight.

**DURABLE:** Photovoltaic cells are encased in glass to protect the delicate silicon wafers from nature’s harsh elements.

**ECO-FRIENDLY:** Solar panels are carbon neutral, and don’t have to be tied to an electrical grid.

**COST SAVINGS:** Solar provides cost savings because the sun acts as an “utility energy company” without cost.

**EASY INSTALLATION:** Solar panels are easy to install, only needing basic wiring and bolts for secure conversion.

**LOW VOLTAGE:** Solar utilizes lower voltage, typically 12 Volts, which means safer usage and installation.

**ENERGY SAVINGS:** Solar provides free energy from the sun and is an ideal source for LED/CFL lamps and other low power consumption electronic products.

**BATTERY BACKUP:** Most solar systems utilize a battery backup to keep the system running for up to five days.

**DARK SKY COMPLIANT:** In conjunction with the proper lighting fixtures, solar lights are compliant with dark sky ordinances due to lower lumens per watt.

**TAX CREDITS/GRANTS:** The government is providing tax credits and grants to help with the purchase of solar, as well as other alternative energy options.

## APPLICATIONS GUIDE:

- Streets
- Parking Lots
- Boardwalks
- Public Parks
- Rest Stops
- Gardens
- Walking Paths
- Bus Stations



## KIM LIGHTING PRODUCT OFFERING

You can use any light source with solar as long as you have enough panels to support the system. LEDs are the best option today because they consume the least amount of power and can be dimmed to consume even less power. These two factors combined make Kim Lighting + SEPCO ideal solutions.



### ALTITUDE™

The ultimate in luminaire design innovation with a unique balance of form, engineering and unique PicoPrism™ optics. Specify ALTITUDE small housing for pedestrian walkways, parks and building perimeters.

WATTAGE: 35W/30 LEDs • 70W/60 LEDs



### THE ARCHETYPE® LED

Modern architecture often integrates curvilinear, rectilinear, classical, and neo-classical styles into a single structure. The eclectic shape of The Archetype LED readily adapts to and universally complements contemporary architectural design.

WATTAGE: 35W/30 LEDs • 70W/60 LEDs



### BOUNCE® LED

Bounce features a subtle indirect component that addresses the growing concern for control of glare and light trespass, with a unique visual presence both day and night.

WATTAGE: 35W/30 LEDs • 70W/60 LEDs



### CURVILINEAR CUTOFF LED

The Curvilinear LED series is conceived as a total integration of design and technology. This family of luminaires is a direct response to the needs of today and engineered with tomorrow's insights in energy efficiency and glare control.

WATTAGE: 35W/30 LEDs • 70W/60 LEDs



### CFL® LED

The CFL1 is designed for broad illumination with the fixture relatively close to the lighted surface maintaining excellent uniformity throughout its beam pattern. Recommended distance from the lighted surface is 3' to 15' depending on lamp and wattage.

WATTAGE: 50W/27 LEDs



### WARP9® LED

Typical site lighting attempts to embellish, decorate, or adorn, often beyond the original architectural intent. WARP9 LED was designed to disappear from the site, camouflage itself within its surroundings, and avoid detection from daytime visual perception.

WATTAGE: 35W/30 LEDs • 70W/60 LEDs