

SOLED™ *energy morphing*

With rising global warming and pollution levels, the world is moving towards harnessing more and more renewable energy resources. Although the technology for converting solar energy, wind and bio mass wastes into electricity has been in existence for a long time, but the associated high costs and large economies of scale required have made it virtually impossible for common man and smaller organizations to make use of these resources.

Emtech Energy Inc. has leveraged on the recent improvements in solar panel efficiencies, advent of efficient high brightness LEDs, depreciation benefits, the role of carbon credits and government subsidies to make solar driven systems economically feasible.

When it comes to solar lighting products, you want to make the right choice – to know that the products you select are well designed, well engineered and properly configured to meet the demands that will be placed on them. Simply put, you want to know the solar lighting system you choose will work in your application and environment the way it was designed – for the long-term, while maximizing the value of your purchasing rupees.

SOLED™ solar lighting package represents a true engineering breakthrough in commercial solar lighting – and a visible difference in light quality and visible illumination.

Bringing perpetual energy at your home



SOLED™ Lighting Systems (SLS) use solar technology to provide lighting in areas where there is no utility power or where excavation for underground power lines make utility power too costly. The SOLED™ Lighting Systems combine the latest technology available to provide years of reliable, low maintenance operation. The factory assembled electronic control panel and batteries are contained in a 'slim-line', outdoor enclosure and fully tested for simple, trouble free installation. The SOLED™ Lighting Systems feature an ultra high efficiency luminaire incorporating a computer-designed, polished specular reflector to maximize the lighting intensity and coverage area. SOLED™ Lighting Systems are color coordinated in attractive powder coated architectural bronze including the optional pole and arm. The luminaire is available with either low pressure sodium (LPS) or fluorescent (FL) lamps. The LPS lamp is a monochromatic (yellow/orange) light source, delivering the highest possible lumens per watt. Compact fluorescent lamps provide slightly less lumens, but produce a white light (4100K), which appears brighter than low pressure sodium lamps and should be used in areas where color rendition is desired. The use of fluorescent fixtures in areas that experience temperatures of 5°F (-15°C) or below is not recommended.

Applications

- School ground security lighting
- Marinas and campgrounds
- Parks and recreation areas
- Community area lighting
- Parking lots
- Bicycle and jogging paths
- Residential roadways and intersections

Features And Benefits

- Eliminates utility line extensions
- Fast and easy installation
- Location flexibility
- Automatic lighting controller with adjustable run times
- Maintenance free, long life batteries
- Over-current protection and status LEDs

Complete lighting systems include: Luminaire, Solar array, Top pole mount, Electrical control panel, All wiring, Sealed batteries and enclosure.

Standard systems do not include pole and arm – choose from options.

Options: (ordered separately)

- SLS-A – Pre-assembled PV array, top pole mount & wiring
- SLS-E – 5" sq. x 20' pole, 2" top tenon, w/48" arm
- SLS-B – Protective aluminum module back plates
- SLS-G – 5" sq. x 20' pole, 2.5" tenon, w/48" arm
- SLS-D – 6" sq. x 20' pole w/48" arm
- SLS-F – Lightning Surge Protection and ground rod

Comparison on lumen to lumen basis

	Incandescent	CFL	LED
Life Span (in hours)	1,500	10,000	60,000
Watts	60	14	6
Cost	30.0	120.0	1,200.0
KWh of electricity used over 60k hours	3,600	840	360
Electricity Cost (@ Rs 6.5 per KWh)	23,400.0	5,460.0	2,340.0
Bulbs needed for 60k hours of usage	40	8	1
Equivalent 60k hour bulb expense	1,200	960	1,200
Total 60,000 Hour Lighting Spend	24,600.00	6,420.00	3,540.00

Savings in solar street light

	Sodium Lamp	Solar Based LED Streetlight
Wattage	70 W	6 W
Ballast losses	20 W	-
Installation Cost (Rs)	7000	17500
Running Cost per year (Rs)	2759.4	0
Replacement cost per year (Rs)	800	1200 (once in 3 years)
Depreciation Benefits (1st year) (Rs)	346.5	4620
Units saved per year		394.2
Power savings per year (Rs)		3159.40
Breakeven in years		1.97
Minimum Return on Investment		30.09%