

# ***SOLAR PANEL LUMINAIRE SOLUTIONS***



## EGC International Corporation

*EGC International is committed to deliver the most effective and efficient solar energy Solutions to help the growth of our communities.*



**This portfolio of Solar Street Lights products is a big contribution to energy savings**

## **About EGC International Corp.**

**EGC International Corp., with his Alternative Energy Division and the Green-Tek Solar System (ISO 9001 certification ) products, is the most reliable supplier of Solar Power solutions for Latin America and the Caribbean.**

**We offer the best Solar Power energy solutions, customized according to the applications and requirements of the clients in the Region, with the support of the most reliable solar power providers in the field of alternative energy. (Green Systems)**

# **Illumination**

**Our high quality power Solar Systems are designed with commercial quality standards, including all the required elements for a complete installation (Turn Key Solutions). The Solar Systems are equipped with a microprocessor activation unit that automatically controls the operation of the system, from sunrise to sunset, as well as the batteries charging for better performance.**

**The illumination devices range from LED technologies (Light Emitting Diode), LPS (Low Pressure Sodium) and FL (Fluorescent), providing the maximum illumination per watt.**

# Illumination

Some of the main applications are:

- Streets and highways
- Recreational Parks
- Parking sites
- Railroad lines
- Community Areas
- Rural towns
- Schools



## What are solar panels?

- Solar panels are devices that convert light into electricity. They are called "solar" panels because most of the time, the most powerful source of light available is the Sun, called Sol by astronomers. Some scientists call them *photovoltaic* which means, basically, "light-electricity." electrical energy.
- The batteries recharge on a daily basis with the energy that is derived from the sun, directly or indirectly, and each battery has a capacity of several hours before it must be recharged again for use.
- The system operates with only 12 volts of force, minimizing any liability from electric shock.

## Main characteristics of our product

- This product functions with 12, 24 and 48 volts. This protects our citizens from electrical shock and our government from any liability
- The batteries have a standard life of several years, depending on the project, and are guaranteed by our manufacturers.
- Each system functions independently and without any need of an electric grids. This helps to use our product in areas that are difficult to access like roads on mountains, lakes, marinas, etc. If one of the lamps fails the other ones keep functioning.
- They are built for wind, rain, snow and other things that nature can bring
- They require very little maintenance and the panels and light bulbs have a long life expectancy
- The system has sensors that turns the bulb on and off automatically given the intensity of light in the environment

## Why is this technology important to our community

- With the challenges that our world is facing today and with our dependency on oil from other countries this technology is vital for the long-term stability of our society.
- The amount of money that will be saved with this new system will be substantial and the impact to our planet will be minimal.
- We do not have to purchase millions of dollars in cooper, aluminum, or other resources from our planet
- There is no need for extensive grids since each system is independent.
- The system is extremely safe against electrical shocks or short circuits.
- Can be used in isolated areas of our community like parking lots, parks, marinas, schools, or other areas without the need of extensive and expensive infrastructure

## ***SOLAR LED STREET LIGHTS***



### **Features :**

1. Special Timer Control Design : STC conserves the Solar Energy ie, after 6-8 hours full lighting it automatically switches to lighting with half power consumption at midnight. (optional)
2. Efficient LED Lighting : Uses advanced and very powerful LEDs to match the solar energy supply.
3. Efficient control Circuit with the lowest static current consumption to conserve the solar energy.
4. Over Charge Protection.
5. Over Discharge Protection.
6. Install solar LED Street lights mixed with City power street lights to avoid emergency.

### **Components :**

1. LED Module lamp with lamp housing
2. Built in solar controller and timer circuit (optional)
3. Accessories included (optional)
4. Solar Panel



## ***SOLAR LED STREET LIGHTS***

### ***Benefits:***

- ***Easy installation – no wiring required.***
- ***Installing and moving is easy – no more waiting for the utility company!***
- ***Proven technology. Vandal and theft-resistant components and hardware. All parts are corrosion resistant.***
- ***Low installation cost.***
- ***Easily and quickly deployed in almost any location.***
- ***NO wiring run from the grid***
- ***NO cuts through existing roads, sidewalks or landscaping.***
- ***NO Maintenance***
- ***NO Utility bill***
- ***Maintenance Free Batteries!***
- ***Component lifetime of 25 years***
- ***Two-year full system warranty***

## ***SOLAR LED STREET LIGHTS***

***Four packages are available that allow you to choose the lighting solution that best meets your needs. The LED Street Light is available with either 100 or 200 LEDs, which are equivalent to 100 W and 200 W incandescent light bulbs respectively.***

Item No.	GES-LED-H01	GES-LED-H02	GES-LED-H03	GES-LED-H04
Solar Panel	50 W	80 W	120-130 W	300W
LED module	20 W	30 W	40 W	90 W
Batteries	75 Ah	100 Ah	200 Ah	400 Ah
LED Quality	200	300	600	1200
LED Brightness	4320 lumens	5400 lumens	6000 lumens	8000 lumens
Duration	3 nights	3 nights	3 nights	3 nights
Pole Height	3 Mts	4-5 Mts	6-8 Mts	8-10 Mts
Start darkness Automatically	Less than 120 LUX	Less than 120 LUX	Less than 120 LUX	Less than 120 LUX
Note :	Select the PV module according to local weather conditions and duration of lighting required. Do not select a PV module that is above the maximum current limitation. Recommended PV module output is designed where on an average the effective sunshine is around 8 to 8.5 Hours			

## ***SOLAR LED STREET LIGHTS***

### **Comparison :**

	Solar LED Street Lights	General Street Lights
Power Consumption	35W / 40W / 45W	75W / 90W / 130W / 150W
Life Span	50000 hours up	1000 to 5000 hours
Power Network	No network consumption	High Power Network Consumption
Environment	Mercury Free	Hazardous Mercury Level
Safety	DC 12 V, Low Voltage safe	Ac 110/240V, Electrical shock
Stable	As Efficient light	Risk of Black / brown outs



## ***Solar LED Lighting Systems for Bus Transit Shelters***

- ***Fixed mounting with protective plate tilts solar module at 45 degrees allowing 360-degree positioning.***
- ***Flat mounting for dome roof or metal seam/hip roof shelters.***
- ***Complete power systems with solar modules, pole mount with protective back plate, sealed 12V battery, battery box, and system controller.***
- ***Includes all mounting components, wiring, fuse protection, tamper-proof fasteners. LED fixture configured separately.***



- ***Automatic operation dusk-activated solid state lighting controller with 5 years warranty.***
- ***Many days of non sun operation with a generous battery reserve of maintenance-free, deep-cycle batteries.***
- ***Low voltage 12 VDC systems does not require grounding through pavement.***

## ***SODIUM LOW PRESSURE VAPOUR LIGHTS***

- ***Is an independent renewable lighting system, which has the characteristics of energy saving and environment protection.***
- ***Can be used for public lighting on roads, residential, area parks and shopping malls.***
- ***The main system is the Solar module which collects sunlight and converts into electricity which in turn charges the maintenance free sealed batteries during the day time.***
- ***Uniform sodium distribution in the discharge tube by means of dimples, higher efficiency and better lumen maintenance for lamp life.***
- ***Monochromatic yellow color with non-existent color rendering.***





## ***SODIUM LOW PRESSURE VAPOUR LIGHTS TYPES***



MODEL	GES - LPS - 26	GES - LPS - 36	GES - LPS - 55
Solar Modules	80 Wp	120 Wp	240 Wp
Battery	100 Ah/12V	150 Ah/12V	150 Ah/12V x 2
Lamp	LPS 26W	LPS 36W	LPS 55W
Lamp Fixture (height)	4m - 6m	6m - 8m	8m - 10m
Ballast (Power)	26W	36W	55W
Charge Controller	10A/12 - 24V	10A/12 - 24V	20A/12 - 24V

## ***SODIUM LOW PRESSURE VAPOUR LIGHTS***

- The main components of the solar street lights System includes the Solar Modules, the Solar Low pressure Sodium lights, the controller and ballast, also the maintenance free Lead Acid Battery.***
- Nonetheless SOX are the most common light in most cities today with their unique monochromatic orange color (sodium line 590 nm) for high contrast visibility in mist and fog. This solution is ideal for lighting arterial roads, motor ways tunnels, canal sand locks.***



## ***SODIUM LOW PRESSURE VAPOUR LIGHTS***

### ***Main specifications:***

SOLAR PANEL	BATTERY
<ul style="list-style-type: none"> <li>* Multy-Crystal Silicon</li> <li>* Power : 100 Wp - 300 Wp</li> <li>* Voltage : 12 V-24 V</li> <li>* Amperage : 4.5 A - 4.77 A</li> <li>* Warranty : 20 years</li> <li>* Max. Wind Velocity : 140 km/hr</li> </ul>	<ul style="list-style-type: none"> <li>* Voltage : 12V</li> <li>* Capacity : 120 Ah - 200 Ah</li> <li>* Warranty : 3 Years</li> <li>* 100% Maintanance Free</li> <li>* Gelled Electrolite</li> <li>* Sealed Valve Regulated</li> <li>* Eliminates Vibration Damage</li> <li>* heavy Duty Tank Formed Plates</li> <li>* Calcium/Copper Lead Alloy Grids</li> </ul>
LAMP	LAMP FIXTURE
<ul style="list-style-type: none"> <li>* SOX - 26, SOX - 36, SOX - 55</li> <li>* Life : 2 years</li> <li>* Ideal for roadway Lighting,Bridge and Tunnel Lightings</li> </ul>	<ul style="list-style-type: none"> <li>* Height of The Pole : 4 -10 m</li> <li>* Suitable For Single Lamp : LPS - SOX -55</li> <li>* Porcelain Holde : LPS - SOX -55</li> <li>* Aluminium Fixture Body</li> <li>* Photocell Sensor</li> </ul>

## **LATEST PROJECTS**

***JUMEIRAH ISLANDS, A WONDER IN ITS OWN RIGHT GETS INSTALLED GRENLITE A NEW ERA OF LIGHT SOURCE-INDUCTION LAMP FOR SOLAR PATHWAYS AND STREETS.***



***Successful installation of GRENLite which requires no electrodes, no filament to be damaged and no maintenance cost for Jumeriah Islands, a picturesque self-contained community of 50 islands and an experience of idyllic waterfront living with winding water features and lush greenery. The project was conceded at a swift pace and was successfully completed within the time boundaries set by the entire installation.***

## ***LATEST PROJECTS***

***NIGERIA : THE WORLD'S SECOND LARGEST SOLAR STREET LIGHTING INSTALLATION.***



***Project to supply Streets Light Systems, successfully installation for the Yobe State Government in Nigeria with the support from a local partner. The systems are designed for easy installation. The efficient microprocessor automatically activates from dusk to dawn with 3 day autonomy***

***Thank you***

***Contact us***

***EGC International Corp.  
Worldwide Headquarters  
6788 N.W. 17 Ave. Fort Lauderdale, Florida 33309 USA  
Tel.: 1-954-979-5510 Fax: 1-954-979-5515  
[www.egctechnologies.com](http://www.egctechnologies.com)***