



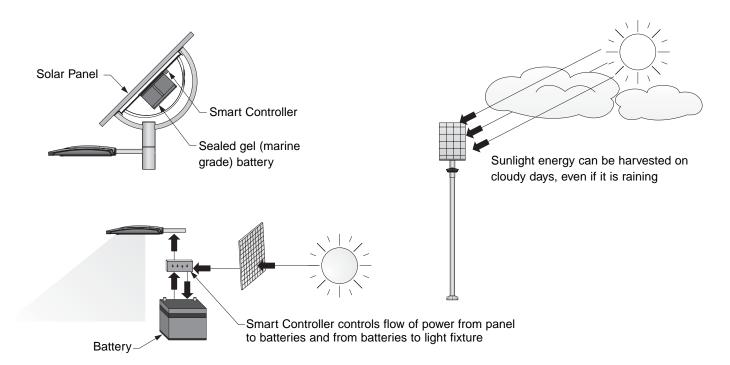


# SONNE<sup>™</sup> Solar Powered Light Fixture How does it work?

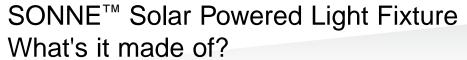
Sonne<sup>™</sup> solar powered luminaires operate totally on energy collected from the sun. They do not use power from electric lines, but produce electricity by converting sunlight to direct current (DC) electricity.

Understanding how it works is easy. As the sun passes through its course of the day, sunlight rays strike upon one or more solar panels that are mounted above the light fixture. The rays stimulate silicon wafers contained within the solar panels that in turn output electricity which is stored in sealed gel batteries for later usage.

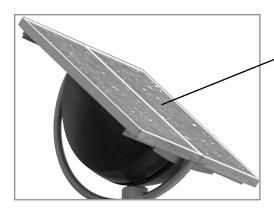
Now that the sun's energy has been captured, its flow and storage must be precisely managed. Electrical current between the solar panels and the batteries, and between the batteries and the lamp is regulated by a built in device known as the Smart Controller. The Smart Controller detects when the batteries are fully charged, in which instance it would stop current flowing to them from the panels to prevent overcharging. It also senses and remembers when nightfall and sunrise occur, and it may be set to power the lamp for user-adjustable periods of time in relation to dawn and dusk. For instance, the Smart Controller could be set so that the light shines continuously from dusk to dawn, or alternatively it could be set to turn the lamp on for three hours after dusk, and again for one hour before dawn.



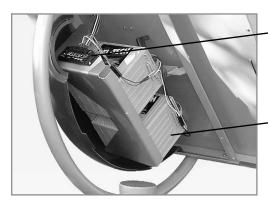














#### **Solar Panel**

- High quality polycrystalline silicon photovoltaic ("PV") modules especially designed for solar lighting
- 20 year warranty on power output from the manufacturer
- Available as single panels in 80W or 125W or double arrays of 160W and 250W
- Tilt adjustable from 0° to 45° for optimum sun energy collecting as per specific geographic areas
- Fully rotatable independent of fixture head for alignment to the equator (Southern facing in North America)

#### **Fixture Head**

- Made of multi-layered recycled ABS Plastic, with a virgin UV protective outer shell which is highly fade resistant
- Access door made of formed steel with an acrylic flat lens as shielding fastened to fixture body using two quarter-turn captive fasteners for ease of lamp servicing
- Equipped with either 18W, 26W or 32W compact fluorescent lamp and a Type III reflector
- Supplied with a UL Listed 12 volt DC ballast, mounted to a removable tray, integral to the fixture

#### **Smart Controller**

- Regulates power to and from the batteries, preventing both over charging and over depletion of the batteries
- Can be pre-set to power on and off the lamp at preset time intervals in relation to dawn and dusk

#### **Batteries**

- Maintenance-free, spillproof batteries use gel electrolytes in a totally enclosed battery case mounted in a hinged battery tray for ease of servicing
- Environmentally friendly and safe

## **Battery Cover**

 Easily removable ABS UV resistant plastic secured to access cover and PV module with safety cables

#### **Access Cover**

- Provides access to smart controller for changing settings
- Locks battery covers in place, via captive quarter-turn screw

### **Vandal Resistant Plating**

 Aluminum plating completely protects solar panel from backside, vented to prevent heat buildup



# SONNE™ Solar Powered Light Fixture Why use it?



Consider that there is a need for a light source at a location not directly on an existing power grid, and then figure the cost of supplying power to that area. Now consider being able to meet your lighting needs without the extra expense of supplying electricity to those areas. The cost of installing just 100 to 150 feet of underground cable or 400 feet of overhead lines renders Sonne™ solar power lighting cost effective right from the start. And with a very easy installation and the absence of any additional power costs, the savings just keep adding up!

**NO TRENCHING** 



NO METERING



NO OVERHEAD LINES



NO ELECTRIC BILL

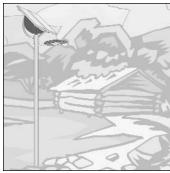


Installations might include any of the scenarios depicted below as well as in National Parks, remote parking lots, skiing areas, country homes, golf courses, boat landings, hiking trails, rest stops, disaster areas—the list of possibilities goes on and on.

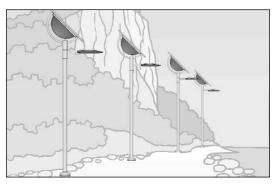
**Corporate Headquarters Landscaped Areas** 



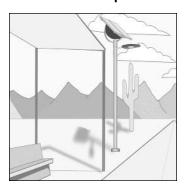
Wilderness Retreats



**Beach Areas** 



**Remote Bus Stops** 



**Remote Historical Sites** 

