



# **SIKCO Street Light**











Model: All in one 12 N 15





# **Features**

- 13 ft feet pole height above ground
- 12 / 15 watts LED aluminum IP 65 element
- Inbuilt charge controller with driver
- 1200 lumens output
- 120° area covering
- Robust and durable
- Adjustable angle setting of PV module
- 40 watts Poly crystalline PVM
- MNRE approved PVM
- Pole consist of 62 mm + 25 dia GI pipe
- Inbuilt 10 AH / 15 AH Lithium ion battery
- Dust to dawn control system
- All GI nut bolts
- 01 day backup
- ISO/MSME registered manufacturer
- 02 year replacement warranty on manufacturing defect
- Anti theft

#### Price:

INR 11990.00 (Ex. Stock Kharghar) - 12 watts

INR 12990.00 (Ex. Stock Kharghar) - 15 watts

Installation cost extra @ 1000 each

Min. qty: 20





## Model: Popular



Model: Standard

(Gram Panchayet)

# 09 Watts Street Light

## **Features:**

- 13 ft feet pole height above ground
- 09 watts LED aluminum cast element
- 26 AH SMF/LA battery x 01 No
- 37 watts Poly crystalline PVM
- Inbuilt charge controller with driver
- 900 lumens output
- 120° area covering
- Robust and durable
- Adjustable angle setting of PV module
- MNRE approved PVM
- Pole consist of 50 mm + 25 dia GI pipe
- MS/PVC battery box
- Dust to dawn control system
- All GI nut bolts
- 01 day backup
- ISO/MSME registered manufacturer
- 01 year replacement warranty on manufacturing defect

#### Price:

INR 8990.00 (Ex. Stock kharghar) - 09 watts Installation cost extra @ 1000 per pole

Project cost: INR 9990.00

Min. qty: 20





# **12 watts Street Light**



MEDA/MNRE specified

## **Tech Specifications**

#### Features:

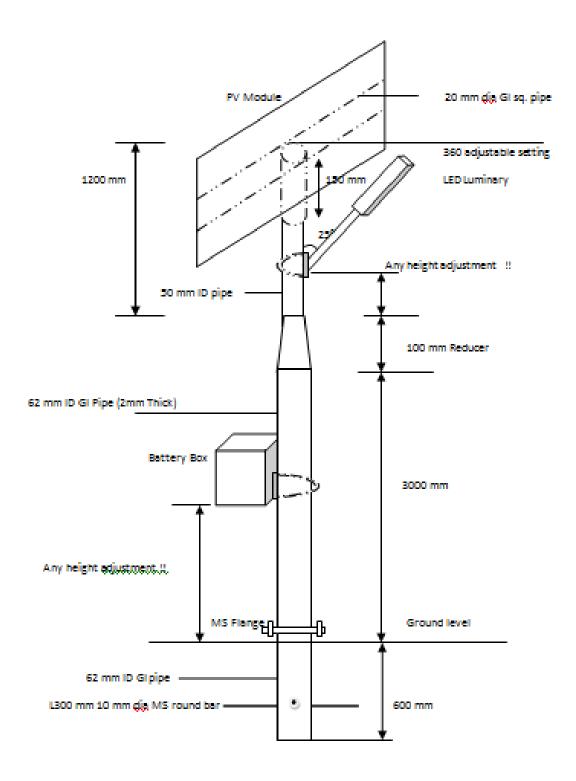
- 15 ft feet pole height
- 12 watts LED aluminum cast element
- Inbuilt charge controller with driver
- 900 /1200 lumens output
- 120° area covering
- Robust and durable
- Adjustable angle setting of PV module
- 50 watts Poly crystalline PVM (40 Wp for 09 watts)
- MNRE approved PVM
- Pole consist of 62 mm + 50 mm dia + 25 dia GI pipe
- PVC battery box
- Lockable IP 65 battery storage (GI/PVC)
- Dust to dawn control system
- Easily dismantle able pole
- All GI nut bolts
- 42 AH C-10 battery x 01 No (Exide/Luminous/V-Guard)
- ISO/MSME registered manufacturer
- 02 years replacement warranty on manufacturing defect

#### Price:

10990.00 (Inclusive of all taxes, Ex. Stock kharghar) 09 watts 11990.00 (Inclusive of all taxes, Ex. Stock kharghar) 12 watts Installation cost extra @ 1200 per pole









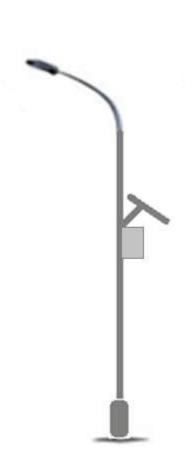


Model: Deluxe

#### Features:

- 20 feet height
- 18 watts LED aluminum cast element
- 75 watts Poly crystalline MNRE/UL approved PVM
- C-10 Battery 65 AH battery x01 No (Exide/V-Guard)
- Lockable IP 65 battery storage
- Inbuilt dusk to dawn charge controller with driver
- 1800 lumens output
- 120° area covering
- High aesthetic view
- Adjustable angle setting of PV module
- Pole consist of 75 mm OD GI pipe+62 mm + 50 mm OD GI pipe+ 32 mm GI pipe
- Easily dismantle able pole
- All GI nut bolts
- ISO/MSME registered manufacturer
- 02 years replacement warranty on manufacturing defect

**Price:** INR 16990.00 (Inclusive of all taxes), Ex. Stock Kharghar Installation cost extra @ 1800 per pole





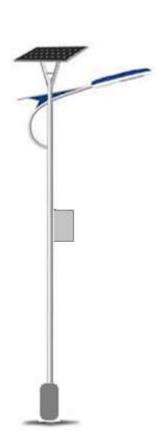


Model: Premium



- 20 feet pole height
- 24 watts LED aluminum cast element
- Inbuilt dusk to dawn charge controller with driver
- 2400 lumens output
- 120° area covering
- High level aesthetic view
- Adjustable angle setting of PV module if required
- 100 watts Poly Crystalline PVM
- Pole consist of 75 mm dia GI + 62 mm + 50 mm+ 32 dia GI pipe
- Powder coated/PVC IP65 compliance battery box
- All GI nut bolts
- C-10, 75 AH battery x 01 No (Exide/ Luminous/V-Guard)
- MNRE approved PVM
- ISO/MSME registered manufacturer
- Aluminum painted
- 02 years replacement warranty on manufacturing defect

**Price:** INR 19990.00 (Inclusive of all taxes), Ex. Stock price Kharghar Installation cost extra @ 2500 per pole







Model: Golden



Model 1

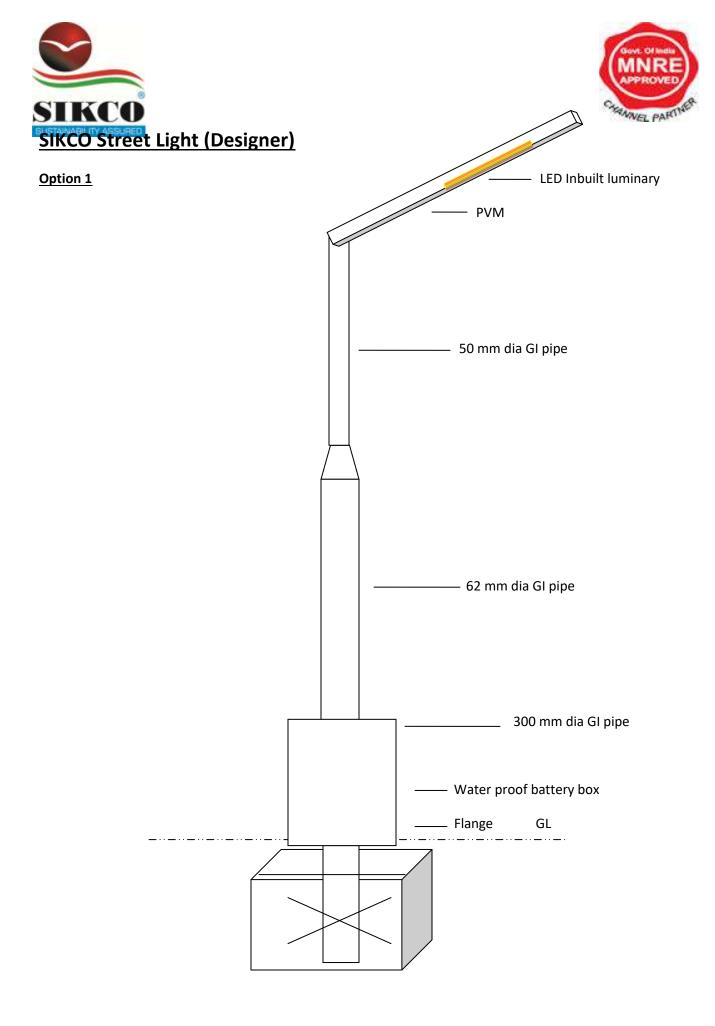


Model 2

## Features:

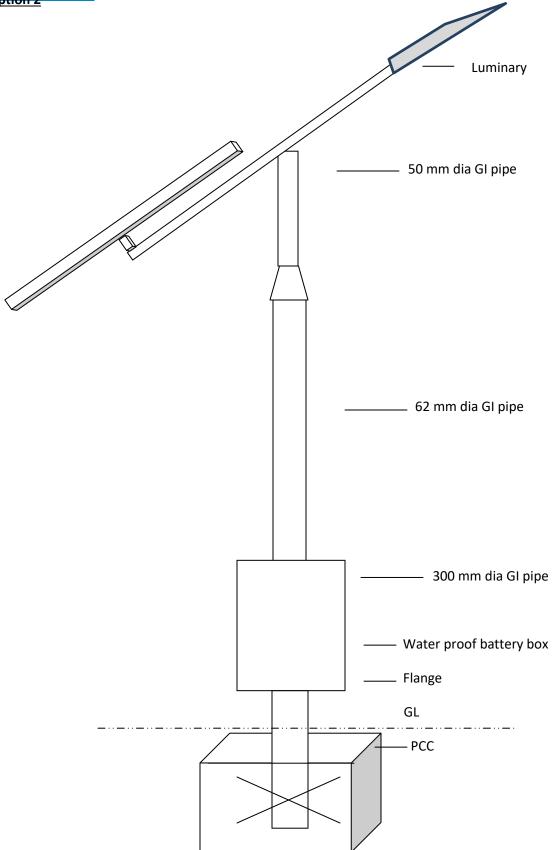
- 27 ft height (08 Meter)
- 40 watts DC LED aluminum cast luminary
- 4000 lumens output
- Inbuilt driver with dusk to dawn controller
- 120° area covering
- High level aesthetic view
- Adjustable angle setting of PV module
- 120 watts Poly Crystalline PVM
- Pole consist of 125 mm dia + 100 mm dia + 50 dia MS pipe
- GI/PVC battery box
- All GI nut bolts
- SMF battery 100 AH battery x 01 No (Exide)
- Adjustable angle setting of PV module if required
- Aluminum painted
- MNRE approved PVM
- ISO / MSME registered manufacturer
- 02 years replacement warranty on mfg defect

**Price:** INR 29000.00 (Inclusive of all taxes), Ex. Stock Kharghar Installation cost extra @ 3000 per pole



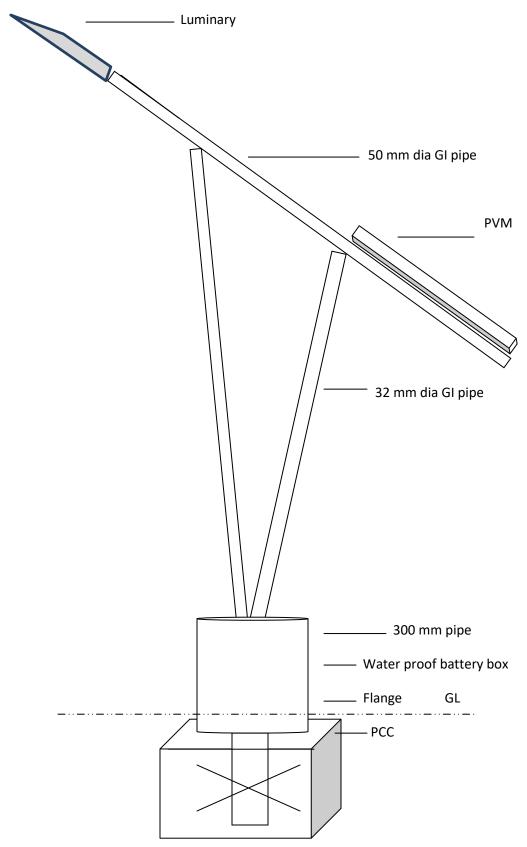
















# **Solar-Wind Street Light**

## Hybrid 40

The SIKCO solar/wind hybrid streetlight is an intelligent, small scale and off-the-grid LED street light system. Composed of solar modules and our exclusive wind turbine, PV deep cycle batteries, controller and a dusk to dawn controlled LED streetlight, this hybrid streetlight takes only solar and wind as its energy source and utilizes the energy to provide bright and safe lighting throughout no/low light hours.

The Hybrid LED street light is a remarkable stand-alone street light requiring no underground wires or services. On top of the pole is our exclusive downwind turbine that harnesses wind SILENTLY from any direction, regardless of changes in wind direction and gusting. Along with the wind turbine is a solar panel on an articulating arm that is optimally positioned during the pole installation process to take advantage of as much sunlight as possible. All of the generated power is stored in batteries located at the base of the pole providing plenty of power when needed.

The battery box is hidden and inside the pipe. Virtually is theft proof and highly aesthetic. The lighting is a high-efficiency LED street light that is as bright and intense as a traditional sodium vapor bulb.

We offer 20W, 40W (Described here), and 80W models.

## **LED Street Light ht**

Solar Panel: 80W, mono or polycrystalline, efficiency: 17.9%

Wind Turbine : 500W 12V with digital charge controller

Battery : 40 Ah,12V, x 2 VRLA C-10 Battery

Controller : 10A,12V, Solar charger controller

Pole : 08 m high, made of MS, Metal painted

Working Time : 10 ~ 12 hours/day, 1 ~ 3 cloudy or rainy days backup

Sunshine Hours: 5 hours per day average of peak sunshine hours

Wind Speed : 2-5 m/sec







# **1.0 Technical Specifications**

# **Wind Turbine:**

Place of Origin:	India	Type	Down wind	Capacity	01 KWh / day
Rated power:	70W	Max power:	120W	Output voltage:	
Rated wind speed:	4.9 m/s	Rotor diameter:	0.5 m	Blade material:	GFRP
Start-up wind speed:	1.9 m/s	Work wind turbine speed:	1200 r/min	Number of blades	03 / 06
Axis	Horizontal	Yaw	Automatic	Slip ring	Compact

- 1. Low speed permanent magnet generator
- 2. Low starting torque, High generating efficiency
- 3. Glass fiber reinforced plastic (GFRP) high efficiency b
- 4. SKF bearing with high performance
- 5. Balanced yaw system
- 6. Designed for minimal maintenance and easy install
- 7. Downwind and auto control of speed
- 8. The span life is  $20\sim25$  years.





# **Alternator:**

Winding	Copper
Wilding	Сорреі
Magnet	Permanent
Double bearing	Provided
Rated Power (Watts) @ 4.9 m/sec	70
Maximum power (Watts)	120 watts
Design Voltage (V)	DC 12
Rated Rotation (rpm)	200
Size in dia (mm)	125 /165
Pole pairs	8
Work Temperature(°C)	-30°C to +65°C
Generator Style	3-phase AC PM
Startup Torque (N·m)	0.9
Net Weight (kg)	01
Cable	Polycab / Finolex/ Equivalent
Start-up / Cut-in wind speed	1.9 m/s & 2.9 m/s
Design wind speed	4.9 m/s
Cutout speed	21 m/s





# **Solar Panel:**

	Data Sheet of Solar Panel 40Wp					
Type of PV Module	Poly/Mono	Polycrystalline				
Module efficiency	%	17.9				
Wattage	W	40				
Weight	Gms	3500				
Tolerance	%	3				
Glass Size (W X L)	mm	600 X 450				
Module Size (L)	mm	610				
Module Size (W)	mm	460				
Module Size (D)	mm	35				
Voc	Volts	21.35				
Isc	Amp	2.1				
Pmax	Power	40				
Vpm	Volts	17.70				
lpm	Amp	2.35				
Cell in Series	No	35				
Module Volt	V	12				
Max system volts	V	12				
Certifications	K V CA N 180 6001 2000 CM 180 8001 2000	MNRE LAPROVED (UL)				





# 2.0 Basic Specifications:

**2.1 Energy Storage System:** Lead Acid Battery, Tubular, C-10, Solar application

**2.2 Luminary:** With dusk to dawn controller, Dual drivers, Prolite/Cree LED, 100 Lumens/watt, Aluminum cast body, IP65 compliance, Toughened glass

**2.3 Pole:** MS Pole 139.7 mm x 114.3 mm x 88.9 mm of suitable thickness suitable for wind application with double flange at bottom, foundation bolts, double coated enamel paints, support structure for wind, PV Modules, Luminary, Battery etc. complete.

**2.4 Make:** Suitable capacity of products will be used to achieve required uptime. Anyone of those make shall be used -

Luminary Make: SIKCO

PV Module Make: Spark / Navitas/ Alpex or Equivalent

• Battery: Exide/ SF Sonic/ Luminous

• Mono Pole: SIKCO

• Cable: Polycab/Finolex/Cabtree

Wind Turbine: SIKCO

• Paints: Asian Paints / Berger

## 3. SIKCO's Scope of Works

- 1. Submission of details of design with drawing based on site.
- 2. Submission of time schedule & bar chart before commencing the job.
- 3. Following of the time schedule, bar chart for timely implementation.
- 4. Supply, transportation of all necessary pre-fab materials & equipments to client site.
- 5. Removing of existing pole and handed over to client
- 5. Excavation, PCC work, erection and installation of the pole at nearest location of existing one.
- 6. Submission of Operation & Maintenance manual including startup/ shutdown procedures, emergency handling procedures, troubleshooting etc., details of equipment specifications,

recommended spare list etc.

- Start-up & commissioning of the street light.
- 8. All necessary training and handing over of plant.

## 4. Client's Scope

- 1. Identification of site nearest to load.
- 2. Supply of JCB/Crane, Spencer/Ladder, water & electricity AC supply for execution of the job.
- 3. Engagement of two personnel to be trained on operation and maintenance of the plant





# 5. Project Schedule

Activities / Time	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Design, Planning						
Foundation						
Manufacture						
Supply & Logistics						
Implementation						
Project Testing &						
Project Acceptance Hand						
over						

# 6.0 Commercial (Hybrid Solar-Wind Street Light)

Supply & Installation of highly efficient solar-wind hybrid street lighting system -

SN	Description	Qty	Rate	Amount
1	Supply of Double Reduced MS Pole (139 mm x 125 mm x 89	01	19590	19590
	mm) of suitable thickness and diameter of length 08 m			
2	Supply of 35 watts (18 watts x 02) DC LED luminary with D2D	01	5000	5000
	controller			
3	Supply of 40 AH solar C-10 battery	01	4400	4400
4	Supply of 40 Wp x 02 no PV module (Poly)	02	2000	4000
5	Supply of 400 watts downwind horizontal axis wind turbine	01	39000	39000
	with GFRP 05 blades with wind controller. All nut bolts are			
	made of SS.			
6	Installation of solar-wind hybrid street lighting system with	8000	8000	8000
	foundation			
7	Total			79990
8	GST - as applicable			
9	Transportation – at actual			
10	Grand total			

# Note:

1. Minimum order quantity: 10 No

2. Lead time 30 days













Indian Navy Gateway of India, Mumbai





# **COMERCIAL DETAILS**

Registered Name : SIKCO Engineering Services

Corporate Office : B-97, Sector -12,

Kharghar - 410210

Phone: (022) - 65174600

Email: info@facilityindia.com

Web: www.facilityindia.com

PAN : BACPS8691E Trade license : II.17/1621

VAT : 27590766942V dtd 16.04.10 CST : 27590766942C dtd 16.04.10

Service Tax No : BACPS8691ESD001

Banker : Axis Bank Limited , Kharghar, Navi Mumbai Bank A/C No (CAC) : 910020018475555, IF CODE: UTIB0000489

SIKCO is a registered trademark

SIKCO is a CRISIL certified company

SIKCO donate 1% of its earnings on underprivileged children's education



Book green.com

Most integrated renewable energy products brand

MSME & CRISIL Registered











वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद् राष्ट्रीय वांतरिक्ष प्रयोगशालाएं Council of Scientific & Industrial Research National Aerospace Laboratories

CSIR - NAL Estd. 1959 1SO 8861: 2808 CERTIFIED ORGANISATION ची जी सं / PB No.1779, एथएएल एथरपोर्ट रोड / HAL Airport Road, बैगलूर / Bangalore-568 017, भारत / INDIA प्रोस / Phone: (का / Off.) : +91 - 80 - 2508 6147 फैला / Fax : +91 - 80 - 2508 6009 ई-मैल / E-mail : mathur@nal.res.in

डॉ जे एस माथुर मुख्य वैश्वानिक एवं प्रधान ज्ञान एवं प्रौद्योगिकी प्रबंधन प्रभाग

Dr. J S Mathur

Chief Scientist & Head Knowledge & Technology Management Division

CSIR-NAL/ SIKCO - MoU/2016/1 January 15, 2016

Mr. Milton Sikder Director SIKCO Engineering Services, B-97, Sector-12, Kharghar, Navi Mumbai, Pin 410210

Sub: Signing of MoU between CSIR-NAL and M/s SIKCO Engineering Services

Dear Sir,

Please find enclosed herewith one (1) original signed set of MoU between CSIR-NAL and M/s SIKCO Engineering Services, Navi Mumbai for collaborations in the field of Wind Energy, Solar-Wind Hybrid Energy, Green Energy Integration.

With this, I look forward for fruitful engagement of CSIR-NAL with M/s SIKCO Engineering Services for harnessing and development of renewable sources of energy.

Thanking you,

Your's faithfully,

gestaur

(J S Mathur)

Encl: As above