



STREETLIGHTS

Renwable Energy LED Streetlight

The **WAWA Energy Solutions** Streetlight is a clever combination of an Energy Ball and solar panels that complement the typical character of these two natural renewable energies. This Streetlight requires no energy from your Utility Provider allowing thousands of dollars savings each year for either city streets, parking lots or highways. If your business or city infrastructure is looking for large cost savings; the **WAWA Energy Solutions** Streetlight is your best choice - period.

The **Wawa Energy Solutions** streetlight is an environmentally friendly, cost saving solution when providing lighting to remote sites as well as city infrastrucutres and businesses looking to save money on these costly lights. This wind and solar powered solution delivers free renewable energy which is stored in a battery ready to be consumed when darkness falls. These lights are perfect for walking trails, paths, playgrounds, parking lots and city roadways.

When installing a **Wawa Energy Solutions** Streetlight, there's no need to dig trenches for underground cables, as it is totally independent from the energy grid. By generating its own power from the wind and sun, there will be no grid connection charges or any ongoing energy charges.

installation is quick; typically less than a day per two streetlights and can easily executed by our expert certified staff.

Envrionmentally friendly - it doesn't burn any green-house gas, as it simply converts the natural energy of the wind into electricity!

Completly independent - it doesn't need and grid connection so there's no need to dig up roads!

Cost effective - quickly installes and there's no on-going power costs!

More informations on this product and installation are available on **www.wawaenergysolutions.com**

Benefits & Advantages

- Zero energy consumption
- Cost savings over existing energy for lighting
- Included battery to store energy
- Independent outdoor lighting solution
- Cost effective
- Very low-voltage, safe and reliable
- No need to run cables or dig trenches for cabling

Zero Energy Street Lights
Replace those expensive traditional street lights!

ZERO ENERGY STREETLIGHTS



WES - S XL

Technical Data

Model:	S	M	L	XL
Solar panel module:	1-240W	2-240W	2-240W	3-240W
Wind output (W):	500W	500W	2500W	2500W
LED light (W):	50 W	50 W	50 W	50 W
Battery:	24V	24V	24V	24V
Battery Box:	Water tight lockable battery box			
Pole (m):	10	12	12	15

Comparison To Traditional

	Traditional Street Light	Zero Energy Street Light
Installation Cost:	Average installation cost range from \$4,000 to \$15,000 depending on the distance to power source	No trenching / cabling. One hole & one pole only. Lower installation cost makes Home Energy street light investment the same or lower than traditional lights.
Equipment Cost:	Less initial investment	Similar initial costs -Including wind / solar panels, energy efficient lighting fixture and energy storage
Running Cost:	Represent almost 40 percent of a typical city's electricity spending	Free renewable power from the wind & sun
Maintenance:	Higher maintenance costs. Re-lamping 3,000 to 5,000 hours	Less maintenance cost, Light fixture rated for 60,000 hours
Environmental:	Average street light consumes 600kWh of fossil fuel energy per year which translates to 930 lbs of CO ₂ emission. Light glare, trespass and pollution	100% green renewable energy from wind & sun. Reduced glare, light trespass, and sky glow. No light pollution
Performance:	Low colour rendering and recognition	Full spectrum light allows for better colour recognition

Your supplier in all weather conditions.

WAWA Energy Solutions would like to introduce their many affordable, innovative products that enable customers and businesses to generate their own energy needs.

You can now choose to provide for your own sustainable energy requirements, reduce your fossil fuel use while taking some personal initiative toward a healthier future for our planet.

Your Choice: **Wawa Energy Solutions**

Summary

The **WAWA Energy Solutions** Streetlight is available in 4 models; and all are both grid connected and off-grid supplied. Optionally, the Streetlight is supplied with an advertising banner for companies and institutions to achieve a lasting appearance.

These renewable energy street lights are capable of producing between 740 W - 3220 W of power if the sun was shining and the wind was blowing. All lights save excess energy produced into a battery that powers the high efficiency LED light.

Since every location and project is different, **WAWA Energy Solutions** takes a site-specific approach to every customer's need – the LED lights, solar panels, wind turbine, tower height, and battery storage are all easily scaled to best fit every customer's exact requirements.

The above versions are standard company versions; but various versions are sold dependent upon location and need.

3-5 days backup power for rainy, cloudy days.

Grid-independent and No Bill to pay. The **WAWA Energy Solutions** Zero Energy Street light will continue to operate even when the power grid is down, and there will never be an electricity bill to pay.



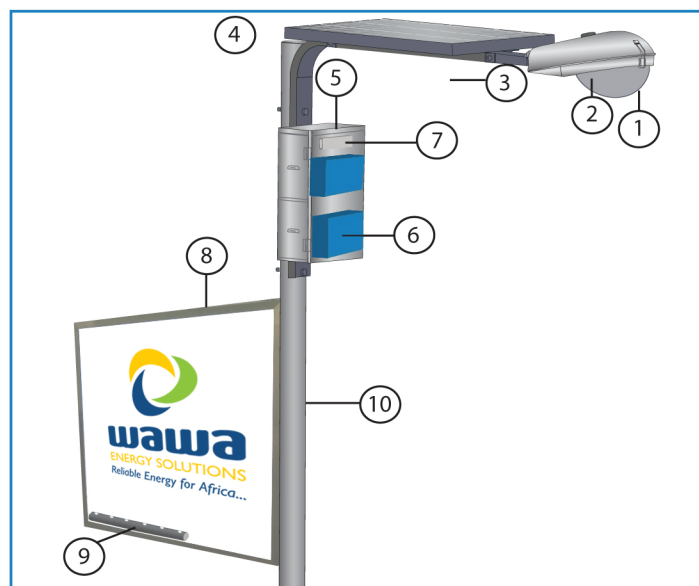
Tropical Street Light Series (TSL)

TSL Ad Light

Solar street and ad light for roadway lighting installations within 30 degrees of the Equator.

System Details

- High reliability solar powered light system designed for 25 to 30 M spacing that includes a 36 x 30 solar powered ad box.
- Integrated solar array and fixture mounting for simplified installation.
- Easy to startup - factory programmed eliminates any field configuration; plug and play connectors for quick assembly.
- Robust design - sturdy corrosive resistant aluminum and stainless steel hardware.



1. Luminaire - Die cast Cobrahead with polycarbonate dome lens. Sealed for corrosion resistance and condensation prevention. IP 63 rating, CE, and TUV certified.
2. Optics - (not shown) High lumen LEDs rated at 65,000 hours (L70) last for at least 15 years of lighting. IES Type II available in a 3 Quad configuration. An efficient, bright, white light source of 5,000K provides uniform light distribution.
3. Panel Mount - Grade "A" corrosion resistant aluminum frame supports solar panel and battery enclosure. Allows for proper orientation of solar array.
4. Solar Panel - Poly-crystalline photovoltaic module in 125W, or 160W panel configuration. PV limited warranty by solar panel manufacturer for 20 years.
5. Battery Enclosure - Vented Grade "A" corrosion resistant aluminum unit holds battery and smart controller.
6. NRGLife™ Battery - Maintenance-free 100Ah 12V sealed no maintenance gel cell battery provides a minimum of 5 nights of battery back-up.
7. aiSUN™ Controller - An LED driver with an integrated solar charge controller that monitors and regulates charging and discharging of batteries as well as controlling and dimming of LED luminaire.
8. AD Light Box: All aluminum construction with polyester powder coat finish polycarbonate insert for ad printing.
9. LED Lightbar: LED light bar features 6 discrete LEDs for an efficient, bright, white light source of 6000K - provides uniform light distribution, no hot spots or shadows.
10. OPTION: Pole - 7 to 8 meter aluminum bolt down pole - extruded from high strength aluminum. Pole exclusively designed to meet the demands of solar applications.
11. Warranty - Systems features FivePlus™ system warranty that includes 10 years on electronics, wiring, fixtures and 20 years on mounting hardware and solar

Tropical Street Light Series (TSL)

Specifications

Model No.	TSL-125-AD TSL-160-AD
Panel Size	125 Watts or 160 Watts
Total Panel Dimensions	125W: 58.58" x 26.06" x 1.88" / 1488 mm x 662 mm x 48 mm 160W: 62.2" x 31.81" x 1.37" / 1580 mm x 808 mm x 35 mm
Panel Power (Operating Current)	125W: 7.14 amp @ 12V / 160W: 4.65 amp @ 12V
Battery	2 x NRGLife™ 100 Ah gel cell
Battery Enclosure Dimensions	13" x 23" x 8½" / 330.20mm x 584.20mm x 215.90mm
Fixtures	45W LED Cobrahead Dome + LED Lightbar
LED Type	High Flux > 85 lum/W discrete with optics and reflectors
Ad Box Dimensions	Approx. 36" x 30" / 914.4 mm x 762 mm
EPA @ 0 degrees (Effective Projected Area) Power Unit + Arm + Battery Box + Fixture + Ad Box*	125W: 13.89 sq. ft / 1.29042 m ² 160W: 14.94 sq. ft / 1.38797 m ²
System Weight	125W: Approx. 233 lbs / 105.69 kg 160W: Approx. 236 lbs / 107.05 kg
System Spacing (RP-8)	25-30 m

Solar panel configurations may vary slightly by manufacturer. *Ad box EPA based on 90° and dimensions may vary slightly.

