



ABC Energy – Portable Power Grid

*Solar/Hybrid Generators
Solar, Batteries, Wind, Diesel, Light Tower*



Made in USA

U.S. Patent # 8,833,985
Mobile Solar Powered Light
Tower
U.S. Patent Pending #
20170141721

Modular, Photovoltaic
Light & Power Cube



Note: DLA model will be desert tan as specified



Skid-Mount & Trailer-Mount Configurations
Backup Wind Power and Auto-Start/Stop Generator Options
All Vertical Light Towers (22' or 32' Masts)



ABC Energy & ABCO Solar™, Solar/Wind™ & Solar/Hybrid™ Light Towers are a series of rugged, mobile outdoor light systems that provide high-intensity, bright white LED lighting on- demand, where and when you need it. Each model offers two independent solar off-grid system(s) that are durable and built to perform; they are equipped with high quality solar power arrays housed on automated adjustable solar wings; an optional wind turbine harvests the areas available wind power; optional backup auto-prime/start/stop generator combined with onboard fuel tank(s) insure unattended lighting even during the toughest in-climate weather; and a large bank of long-life, deep-cycle, no maintenance AGM batteries, housed in an enclosed lockable battery compartment. The all-vertical light tower is fully adjustable from 8-22' or 8-32ft in height. Lights can be tilted up/down and rotated individually, and the mast can be rotated. The solid-state, high intensity, LED flood lights provide a tremendous amount of light with very little power required; instant on/off with no flickering; extremely reliable, vibration and shatter resistant; and designed to provide up to 5-10x longer run time between changes than metal halide lights. The maximum power point tracking solar controllers protects the batteries from over/under charging and the lights can be automatically timer or photo-cell controlled to turn on/off with manual override capabilities. The systems are housed in customized, industrial quality housing on your choice of a skid-mount or portable trailer mount unit that can be easily towed to its destination. 1 person can set up the unit in minutes. Excess DC and/or AC power can be utilized for other purposes from these renewable energy powerhouses.

- Minimizes Noise or Engine fumes - Just Great Light, Silent Operation and Fresh Air!
- Eliminates/Minimizes Expensive Fuel Costs & Time Consuming Trips
- No Limits - Built for Light-On-Demand for Applications Requiring a Durable Solution
- Minimizes Use and Engine Maintenance - Convenient, Saves Time & Money; Majority of the Time it is Powered Solely by Renewable Energy; Generator is for Backup Only
- No Frequent Light Bulb Changes- LED Lights Last up to 5-10x Longer than Metal Halide
- Minimal Fossil Fuels (Carbon Dioxide) - Just Free, Renewable Energy from the Sun!
- No Financial Downside - Significantly Reduces Lifetime Operating Costs
- Federal ITC Tax Credits Likely Apply - Consult Your Tax Advisor

Ideal for Lighting Night Time Operations or Providing DC or AC Power
Military Operations - Security & Emergency - Disaster Recovery - Construction & Work
Sites Oil & Gas - Utilities - Mining - Events - - Industrial - Airports - Parking

Designed Specifically for Heavy Use Environments Where a Light or Power-On
Demand Application is Needed Even In Environmentally Challenging Areas



ABC Energy Portable Power Grid

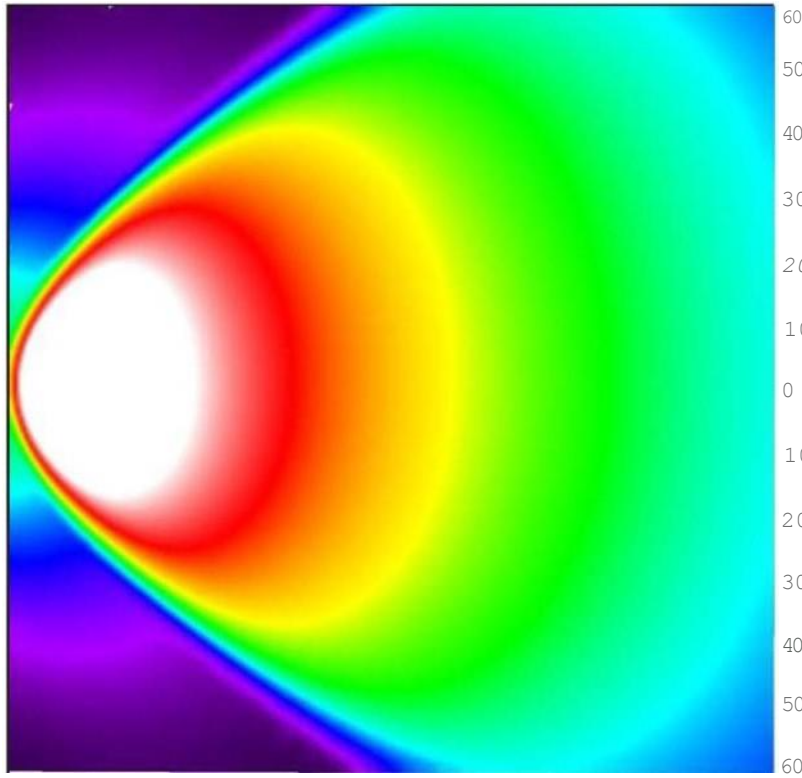
Solar Hybrid Generators

Solar, Batteries, Wind, Diesel, Light Tower

LED Luminaries:	IP67 rated Cree high powered chips with 50,000+ hours of life
# of Luminaries:	4 or 5 (Manual On/Off, Photocell or Timer)
Lumens Output:	~56,364 lm to ~137,250 lm (Varies based on light package) ~72,285 lm for standard 5 light package.
Battery Bank:	800 Ah – 1245 Ah Sealed AGM No Maintenance Batteries (LVD at 70% depth of discharge)
Duration of Light:	~25 hrs – ~59 hrs of continuous light without additional charging depending on light package.
Solar Charge:	900 Watts Solar Array charges >38 Ah per hour during peak sunlight 1100 Watts Solar Array charges >47 Ah per hour during peak sunlight 1400 Watts Solar Array charges >56 Ah per hour during peak sunlight 1800 Watts Solar Array charges >75 Ah per hour during peak sunlight 2700 Watts Solar Array charges >113 Ah per hour during peak sunlight
AC Battery Charger:	40Ah per hour by plugging in to 110V-120V AC outlet (Optional) 50Ah Charger 1200W/120V Pure Sine Wave Inverter with 3600W surge. (Optional) 70Ah Charger 2200W/120V Pure Sine Wave Inverter with 6400W surge.
Wind Turbine:	(Optional) Wind turbine for power generation to charge batteries with minimum winds of 7 mph no matter on day, night or weather conditions. Optimum wind speed rang of 10-49 mph. Produces 40 kWh of energy per month generating energy in a wide range of wind speeds.
Generator:	(Optional) LP, Gasoline (Champion) or Diesel (Perkins) generator to charge batteries.

ABC Energy

Portable Power Grid – Light Tower Photometrics



0 10 20 30 40 50 60 70 80 90 100 110 120
Distance from source, ft.



Single Light Tower

Lights	Five (5) High intensity lamps
Light height	22 ft.
Lighting area	120 x 120 ft.
Total area	0.31 acres
Luminosity	2.30 fc average across entire area

Four Light Towers

Lights	Five (5) Lamps per tower
Light height	22 ft.
Lighting area	450 x 250 ft
Total area	2.2960 acres
Luminosity	1.32 fc average across entire area



ABC Energy

Portable Power Grid – Hybrid Generators

Dealer Pricing & Terms (U.S.)

D) Pricing:	Dealer Price
SLT900vm800NG	\$23,690
SLT1100vm800NG	\$24,940
SLT1400vm800NG	\$24,560
SLT1800vm1200NG	\$31,190
SLT2700vm1200NG	TBD

II) Options/Upgrades (Add to Cost of Solar Light Tower)

- Electric Winch -- \$1000
- Dual Fuel (LP & Gas) Portable 4400 Watt Generator w/Auto Start -- \$2500
- Wind Turbine Powered Battery Charging System -- \$3750
- Diesel Generator w/Auto Start -- \$9690
- Inverter Systems for Plug In of Equipment -- TBD

II) Federal & State Renewable Energy Incentives Are Available on Solar. Applicable for Commercial For Profit Entities

- Federal – 30% investment tax credit (ITC)
- State (Varies) – Up to 35% tax credit above federal + state & property tax exemptions (discuss with your tax advisor)

III) Payment Terms / Additional Discounts & Value Added Items

- a) Net 30 days from time of shipment (for U.S. clients, with credit approval)
- b) Late payments charged 1.5% per month, after net 30 days

IV) Freight & Taxes

- FOB origin, freight prepaid and added to invoice (unless designated otherwise)
- Any applicable taxes will be added to invoice unless a tax exempt status form is received in advance of shipment