

## Progress Solar™ Mobile Solar Light Towers Standard Features and Specifications

### SOLAR GENERATOR

- **Solar Systems**
  - Two (2) totally independent off-grid solar systems housed on a single customized towable trailer; each off-grid system is complete with a monocrystalline solar array, MPPT charge controller, LED floodlights, an automated light timer with manual on/off function and is connected to a deep cycle bank of batteries with a state-of-charge monitoring meter.
- **Power Generation – 600W, 800W and 1200W of solar power (optional wind power available)**
  - Monocrystalline solar arrays (5" cells, highest power / sq ft available)
  - Automated steel actuators to raise and lower solar wings
  - (Optional) TeleStruts – telescoping, locking arms for additional support for the solar wings in high wind regions.
  - (Optional) Wind Generator – adds power (at wind speeds >7mph) during the night hours and/or times when solar irradiation is not readily available (i.e. during inclement weather, cloudy days, etc).
- **Automated Light Timer / Charge Control Module**
  - Light Timer(s) to enable automated, timed interval or manual lighting start/stop times (works independent from solar panels)
  - Maximum Power Point Tracking (MPPT) charge controller(s) to maximize solar power gained and to prevent over or under charging of batteries. Performance data from the charge controllers can be downloaded.
  - Temperature controlled cooling fans provided where needed
  - (Optional) hour meter(s)
- **Power Storage**
  - 24 Volt DC deep-cycle, battery bank(s) comprised of flooded or AGM (sealed, no maintenance) batteries; 840 – 896Ah combined capacity of battery banks.
  - AC dual battery bank charger – 40Ah dual battery bank rapid-charger for backup using generator or any other standard 110V/20amp, 50/60Hz (available 240V upon request) commercial electrical source. Lights can be operated while batteries are being charged
  - Battery State-Of-Charge Meter - Visual display in increments of available battery capacity
  - (Optional) 50 ft. 20amp electrical cord to use with battery charger

▪ **Trailer & Housing**

- Durable, steel vented housing customized to store, protect and maximize functionality of power generation, power storage and light tower components
- Wheelbase 55" (same for all SLT models)
- Towing weight – 2,680 to 3,485lbs (varies based on model, options & battery package)
- Dimensions - 4.42 meters (174 inches) long x 1.37 meters (54 inches) wide x 2.13 meters (84 inches) high (same for all SLT models)
- Towing specifications & requirements – 2" ball size, tongue weight - est. 128 lbs.
- Forklift pockets on mast for high point access and on trailer base for low point access. Crane hook pocket on mast for high point access.
- Straight tongue – standard 2" coupler connection
- (Optional) Lunette Ring (for Pintle hook) or Bulldog connectors
- (Optional) Front outriggers with jacks (included in high wind package)
- (Optional) Chock/Lock to secure wheels
- (Optional) Dual Wheel Jack Stand
- (Optional) 4 per unit "D" rings used to secure unit during transportation

## Light Tower

- 3-stage light tower that can expand from ~12' to 30'
- 4 per unit LED Flood Lights (~36,400 initial lumens) estimated life up to ~5-10x longer than standard metal halide bulbs; LEDs expected 50,000+hrs, L79

Note: LED pupil lumens (scotopic) appear brighter than (photopic) foot candle measurements indicated when compared directly to high intensity discharge lighting (like metal halide or high pressure sodium).

## SLT600 Series

- Progress Solar Light Tower Standard Features including the following:
- The SLT600 uses two 300 Watt monocrystalline solar modules (combined 600 watts) to charge the battery banks
- Approximately 35 to 42 hours of operation without any additional solar or AC recharging.
- **Typically recommended for low to moderate volume applications (light hours used); ~3 to 5 day work weeks; or longer for higher solar irradiation regions.**

### Models

**SLT600-HVR-S** - Equipped with deep-cycle batteries. Periodic maintenance is required to maintain proper water levels in the cells.

**SLT600-HVR-N** - Uses AGM sealed deep-cycle batteries. *No battery maintenance required and AGM batteries are more resistant to freezing than flooded batteries.*

## SLT800 Series

- Progress Solar Light Tower Standard Features including the following:
- The SLT800 uses two solar arrays of 400 watts each (combined 800 watts) instead of the 300 watt solar arrays (combined 600 watts) of the SLT600 series.
- The primary benefits are that the solar gain charging rate of the batteries is ~ 35% faster than with the SLT600 series.
- Approximately 35 to 42 hours of operation without any additional solar or AC recharging.
- **Recommended for moderate to heavy users (light hours used), typically 5 day work weeks up to dusk-to-dawn; or longer for high solar irradiation regions.**
- **This is the most commonly used model for general equipment rental fleets.**

**SLT800-HVR-S** - Equipped with deep-cycle batteries. Periodic maintenance is required to maintain proper water levels in the cells.

**SLT800-HVR-N** - Uses AGM sealed deep-cycle batteries. *No battery maintenance required and AGM batteries are more resistant to freezing than flooded batteries.*

**SLTW800-HVR-N** - Uses AGM sealed deep-cycle batteries. *No battery maintenance required and AGM batteries are more resistant to freezing than flooded batteries. Includes the Optional Wind Power Generator*

## SLT1200 Series

- Progress Solar Light Tower Standard Features including the following:
- The SLT1200 uses two (2) solar arrays of 600 watts (combined 1200 watts) each instead of the 400 watt solar arrays (combined 800 watts) of the SLT800 series
- Two (2) higher capacity MPPT controller(s) that can handle the increased voltage and current.
- The primary benefits are that the solar gain charging the batteries is ~ 50%+ faster rate than with the SLT800 series and ~100%+ faster rate than with the SLT600 which allows for longer run times year round and during sun challenged times or regions.
- Approximately 35 to 42 hours of operation without any additional solar or AC recharging.
- **Recommended for the heaviest users desiring up to 6 - 7 days per week, dusk-to-dawn, year round applications.**
- Note: The high wind package option is a standard feature for the SLT1200 series and is included in the price.

**SLT1200-HVR-S** - Equipped with deep-cycle batteries. Periodic maintenance is required to maintain proper water levels in the cells.

**SLT1200-HVR-N** - Uses AGM sealed deep-cycle batteries. *No battery maintenance required and AGM batteries are more resistant to freezing than flooded batteries.*

**SLTW1200-HVR-N** - Uses AGM sealed deep-cycle batteries. *No battery maintenance required and AGM batteries are more resistant to freezing than flooded batteries. Includes the Optional Wind Power Generator*

## **Progress Solar™ Mobile Solar Light Towers Optional Add-Ons**

The following are routine options available as add-ons to the Solar Light Tower:

- Wind Generator (wind turbine, controller, mast extension); Requires addition of the High Wind Stabilization Package
- High Wind Stabilization Package (front outriggers/jacks & 4 TeleStruts)
- 4 TeleStruts (if ordered outside of High Wind Package)
- Front outriggers/jacks (if ordered outside of High Wind Package)
- 2ea Hour meter(s)
- Pintle lunette ring coupler (note: 2" ball coupler is standard)
- BullDog coupler (note: 2" ball coupler is standard)
- Dual Wheel tongue jack stand
- Chock/Wheel Lock
- 4 "D" rings (for use to secure units with chains for transportation)
- 50 ft. 20 amp electrical cord (for use with standard dual bank battery chargers on SLTs)

Note: We do customize Solar Light Towers for specific industry or end user needs. Contact us if there are additional options you are interested in.