

### **Estimated Run and Charge Time for Lighting Towers**

Based on

6x 150amp hr Gel Cell Batteries poured for 24 Volt supply

3x 330 Watt Solar Panels facing the sun at the correct angle for the time of year

Battery capacity 450 amps at 24 volt

Solar Panel 990 watts (Charge rate at peak sun. 41 Amp-hr)

We use MPPT Chargers so they are still very good on shoulder periods and closely conditions but would not generate max output in these conditions

Lights

4x 100 Watts (60,000 Lumens) = 400 watts (17 Amp-Hr) draw

#### **RUN Time**

12 Hour Run = 204 Amps approx. 52% capacity (good practice)

19.5 Hour Run = 331 Amps approx. 85% capacity (not great for batteries)

#### **Charge Time - - Solar Only**

41 Amp Hr x 6 hours = 246 Amps

41 Amp HR x 5 hours = 205 Amps

To fully charge 19.5 hours of use would be approximately 10 hours. This is purely academic as there are not enough hours in the day and you would not get 10 hours of peak sun even in Summer.

Alternate Mains Charger is built in and available should there be insufficient Sun available. This could be used also when stored indoors to keep batteries topped up.

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