

Technical requirements of Pico-PV system:

- A panel rating of 5-10Wp.
- Panel must be separate from the battery containing unit with a cable length larger than 3m.
- Rechargeable NiMH or lithium-ion based (preferably LiFePo4) batteries.
- Provision of at least 4hours daily runtime of the system from a full battery.
- 4h:4h charge to use ratio (charge under STC : resulting use time) to ensure at least 4-5h daily runtime under average Bangladeshi solar conditions.
- A minimum output of 30lm for 5 hours (150 lmh) per light source must be ensured even under 2.5hp irradiation per day to ensure minimum lighting as backup.
- A daily lighting performance 1200 lumen-hour from the full system under standard conditions (as certified by lighting global (IEC Technical Specification 62257-9-5)).
- Batteries must have sufficient protection against deep discharge and overcharge if required.
- Light sources with integrated energy storage must be protected against water and insect ingress at IP class 41 or greater; alternatively the lamp shall be protected from an equivalent level of environmental exposure.
- In the case of lamps with separate Light sources and energy storage all parts must be protected against water and insect ingress at IP class 21 or greater; alternatively the lamp shall be protected from an equivalent level of environmental exposure.
- 3 years system warranty.
- Lighting Global approval certificate ([IEC Technical Specification 62257-9-5](#)) as proof for satisfactory manufacturing and technical soundness of the system as well as compliance with output specifications and honest labelling (<http://lightingglobal.org/activities/qa/testing>) or test report from IDCOL certified testing authorities.