

# SOLAR TREE

## INTRODUCTION

Solar tree is a fusion of art and technological which can harvest 100 times more solar power by utilizing just 1% of land compared to conventional SPV layout. It plays major role in electrification of rural areas and national highways. It holds the panels at a higher height – gets more sun and it can be facilitated with water sprinkler at the top of the SPT. Solar trees are designed with a simple mechanism which can rotate panels to get more power. Two solar artifacts are available namely Surya Attapatram (1KW) and Surya Banaspati (5KW). Both the artifacts contain standard PV cells, inverter and battery banks for producing and storing electricity from sunlight.

### A. Surya Attapatram

- Maximum power generation capacity: 1 kW
- Load capacity: 0.5 kW for 3 hours
- Power Supply: 220V AC
- Dimension:  $\Phi$  5m x 2.5m Approx.

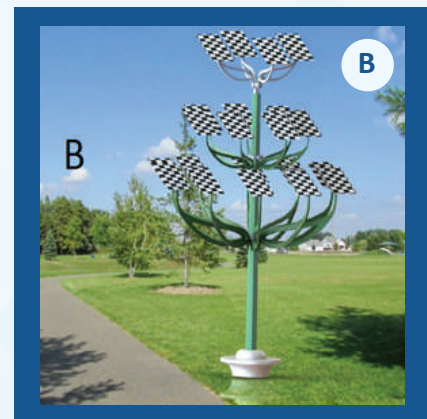


### B. Surya Banaspati

- Maximum power generation capacity: 5 kW
- Load capacity: 1 kW for 10 hours
- Power Supply: 220V AC
- Dimension: 7 m x 5 m approx.

## SALIENT FEATURES

- Requires less land
- Simple rotating mechanism.
- Strong metal frame
- Low maintenance
- Peak Power: 5KW;
- Full Load Capacity: 60% of the Peak;
- Battery Back Up: 2 hrs. (Full load);
- Footprint: 4 sq. ft.; Arial Span: 25 ft. Dia,
- Warranty: Panel: 25 Years



**INDUSTRY SECTOR:** Generating power

**SCALE OF DEVELOPMENT:** The process is under way to license the technology to five more companies.