

Lightning Arrester for Solar System in India – Roadmap

This visual roadmap explains the complete process of planning and installing a lightning arrester system for solar installations in India. The steps follow standard engineering practices and safety guidelines.

Step 1: Site Risk Assessment

Evaluate lightning exposure, structure height, and soil resistivity

Step 2: Arrester Type Selection

Choose conventional or ESE lightning arrester based on plant size

Step 3: Protection Layout Design

Define coverage zone using rolling sphere or protection angle method

Step 4: Earthing System Design

Plan separate low-resistance earthing for lightning protection

Step 5: Installation Execution

Install arrester at highest point with straight down conductor

Step 6: Surge Protection Integration

Install SPDs at inverter and distribution boards

Step 7: Testing & Documentation

Measure earth resistance and maintain reports

Step 8: Maintenance & Inspection

Perform annual inspection and pre-monsoon checks

Step 9: Compliance & Safety Review

Verify IEC standards and utility requirements

This roadmap helps solar owners, EPC contractors, and engineers reduce lightning-related risks and protect long-term solar investments through structured implementation.