

Pre-Installation Inspection Report



[Pre-Installation Inspection Report is prepared before the installation to ensure that the site is ready for installation of project equipment. It helps verify that all necessary conditions and standards are suitable and the installation plan is feasible, which can prevent potential issues during the installation process.]

A. Project Information

- Project location and description
- Contact details of the concerned parties
- Date of inspection
- Inspector details

B. Site Assessment

- Site accessibility and security during installation
- Client consultations regarding any right of way issues
- Signed contract outlining scope of work, warranties, and terms of payments, etc.
- Permits from local authorities and utility
- Site assessment for orientation of panels and any obstructions shading on panels
- Measure sunlight exposure and roof/ground structure
- System layout with panel tilt angle and orientation
- Selection of high-quality equipment as per the technical standards and specification mentioned in the tender document

C. Material Procurement

- Order project components including spare parts
- Verify the quantity, model, and specifications of the solar panels, mounting systems, batteries and connectors
- Pre-dispatch inspection of key components
- Track delivery details
- Secure storage of material upon arrival
- Maintain log for the components received at the site

D. Installation Preparation

- Installation schedule
- Delivery of material and equipment at site
- Inspection of safety equipment

E. Recommendations

- Site suitability
- Any modifications required
- Next steps

F. Inspector's Signature



Post-Installation Inspection Report



[A post-installation report for solar projects is a detailed document that ensures the project remains efficient and effective in its operation. It serves as a record of the system's condition, functionality, and compliance with safety standards.]

A. Introduction

- Project Name
- Location
- Background
- Purpose of Performance Assessment

B. Performance Monitoring Matrix

- System component verification
- System functionality testing
- Data and parameters fixed for performance monitoring such as:
 - Energy production
 - Performance ratio
 - Capacity utilization factor
 - Total CO2 emission avoided
 - Revenue generated
 - O&M costs
 - System availability, etc.
- Comparative analysis of current values with previous and minimum target values

C. Issues and Recommendations

- Description of issues encountered
- Impact on performance
- Suggestions for performance improvement
- Preventive measures for future

D. Appendices

- Performance data tables
- Visual representation of performance matrix



Periodic Inspection Checklist



[Periodic inspection/maintenance checklist is a tool to ensure the ongoing performance, safety, and longevity of a solar system. It outlines tasks to be performed at regular intervals.]

A. Project Overview

- Project name
- Location
- System configuration
- Contact details

B. General Inspection

- Visual inspection for physical damage, cracks, or discoloration
- Check for any visible damage, signs of overheating, corrosion, and defect in project components
- Ensure all panels are securely mounted

C. Electrical Components

- Inspect wiring for any sign of wear or damage
- Check wire connections are tight and secure
- Verify proper functioning of inverter

D. Mechanical Components

- Inspect mounting structures for signs of rust and damage
- Ensure all nut and bolts are tight
- Check for any wear on moving parts, if applicable

E. Performance Monitoring

- Measure the voltage and current output of each panel, the battery voltage and specific gravity
- Review energy generation data and compare with expected outcome
- Identify any drops in performance

F. Safety Checks

- Check for proper grounding and bonding
- Verify the operation of circuit breakers and fuses, and secure installation of all components
- Verify all safety equipment are accessible and in good condition
- Check for any potential hazard

G. Documentation

- Record any issues or defects noticed during the inspection
- Any maintenance or repairs performed
- Update the inspection log with finding and action taken