A logo of a windmill and a plant

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Wind Farm Maintenance Guide

## 1. Introduction

This document provides guidelines for the regular maintenance and servicing of wind turbines at Green Future Wind Farm.

## 2. Maintenance Schedule

* **Daily Checks**
  + Visual inspection of turbine components.
  + Monitoring of SCADA system for anomalies.
  + Checking safety systems and alarms.
* **Monthly Inspections**
  + Lubrication of moving parts.
  + Inspection of bolt torque settings.
  + Analysis of vibration and noise levels.
* **Bi-Annual Maintenance**
  + Inspection and cleaning of blades.
  + Testing of emergency shutdown systems.
  + Checking transformer efficiency and cooling system.
* **Annual Servicing**
  + Comprehensive electrical system test.
  + Replacement of worn-out components.
  + Reviewing performance metrics and adjusting configurations.

## 3. Troubleshooting Guidelines

* **Blade Damage:** Inspect for cracks or erosion; schedule repairs if necessary.
* **Gearbox Issues:** Monitor for excessive noise or oil leakage.
* **Generator Faults:** Check for overheating and unusual power fluctuations.
* **Communication Failure:** Ensure SCADA connectivity is stable; check for firmware updates.

## 4. Safety Considerations

* Always follow lock-out/tag-out (LOTO) procedures before maintenance.
* Use appropriate PPE (Personal Protective Equipment).
* Ensure compliance with local and international safety regulations.

**5. Reporting & Documentation**

* Maintain records of all maintenance activities.
* Log faults and corrective actions taken.
* Submit annual performance reports for regulatory compliance.

For further technical details, refer to the **Green Future Wind Farm Technical Manual**.