

# Energy Substation Inspection Checklist Template

 Show only Checklist

Display Style  
Default 

## Visual Inspection - General

Initial assessment of overall substation condition and appearance.

### Substation Identification Number

Write something...

### Date of Inspection

Enter date...



### Time of Inspection

Enter time...

### Weather Conditions

Write something...

### Overall Impression/Notes

Write something...

### Evidence of Unauthorized Access?

- Yes
- No
- Uncertain

### Ambient Temperature (°C)

Enter a number...

## Vegetation Management

Assessment of vegetation growth around substation and potential hazards.

### Vegetation Clearance Distance (Feet)

Enter a number...

### Vegetation Type Observed

- Trees
- Shrubs
- Grass
- Vines
- Other

### Description of Vegetation Growth

Write something...

### Last Vegetation Control Date

Enter date...

### Photographs of Vegetation

 Upload File

### Vegetation Condition

- Acceptable
- Needs Attention
- Requires Immediate Action

# Security Perimeter

Verification of fence integrity, gate operation, and security systems.

## Fence Height (feet)

## Gate Operation Status

- Operating Normally
- Malfunctioning
- Requires Maintenance

## Perimeter Lighting Status

- All Lights Operational
- Some Lights Out
- All Lights Out

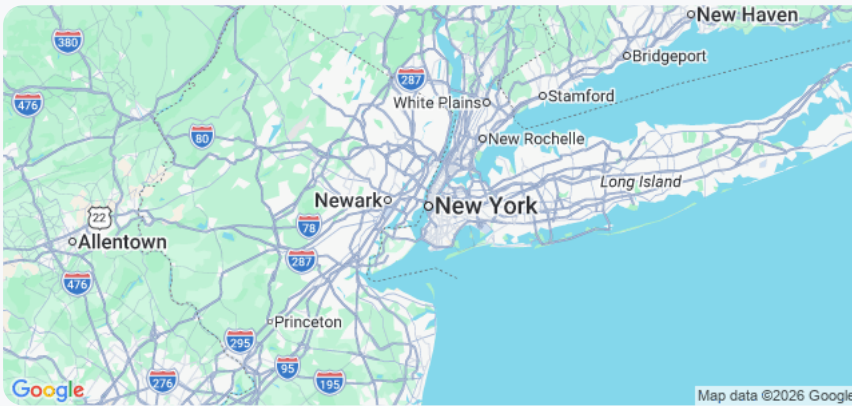
## Last Perimeter Inspection Date

## Comments/Observations Regarding Perimeter Security

Write something...

## Location of Breached Point (if any)

 [Set My Current Location](#)



## Photos of Perimeter (Optional)

 [Upload File](#)

# Transformers

Inspection of transformer bushings, cooling systems, and oil levels.

## Oil Level (inches)

Enter a number...

### Oil Temperature (°C)

Enter a number...

### Turns Ratio

Enter a number...

### Bushing Condition

- Excellent
- Good
- Fair
- Poor

### Remarks/Observations

Write something...

### Last Oil Sample Date

Enter date...

### Attach Oil Sample Analysis Report

 Upload File

## Circuit Breakers

Check for proper operation, lubrication, and condition of breaker mechanisms.

### Operating Time (Seconds)

Enter a number...

### Reclosing Time (Seconds)

Enter a number...

### Mechanism Type

- Spring-Operated
- SFI
- Hydraulic
- Other

### Mechanism Lubrication Notes

Write something...

### Last Lubrication Date

Enter date...

### Abnormalities Observed

- Noise
- Vibration
- Overheating
- Slow Operation
- None

### Inspector Signature

## Disconnect Switches

Verification of switch operation and alignment.

### Switch Position Verification

- Open
- Closed
- Intermediate

### Switch Operating Time (seconds)

Enter a number...

### Lubrication Status

- Lubricated
- Not Lubricated
- N/A

### Visual Condition Notes

Write something...

### Last Lubrication Date

Enter date...

### Mechanism Condition

- Excellent
- Good
- Fair
- Poor

# Busbars

Inspection for corrosion, overheating, and proper connections.

## Busbar Temperature (°C)

Enter a number...

## Busbar Material

Write something...

## Busbar Condition

- Excellent
- Good
- Fair
- Poor

## Description of any defects or abnormalities

Write something...

## Busbar Oxidation Measurement (mm)

Enter a number...

### Date of Last Cleaning

### Attach Photo of Busbar Condition

 Upload File

## Insulators

Assessment of insulator condition, cleanliness, and leakage current.

### Insulator Surface Temperature (°C)

### Insulator Material Type

- Porcelain
- Glass
- Composite

### Insulator Condition (Visual)

- Excellent
- Good
- Fair
- Poor

### Description of any Defects/Damage

Write something...

### Leakage Current (mA)

Enter a number...

### Presence of Contaminants

- None
- Dirt
- Algae
- Bird Droppings

## Grounding System

Verification of ground connections and resistance levels.

### Ground Resistance (Ohms)

Enter a number...

### Transient Overvoltage Suppression (TOV) Resistance (Ohms)

Enter a number...

### Grounding Electrode Condition

- Excellent
- Good
- Fair
- Poor

### Observations/Notes on Grounding System

Write something...

### Last Grounding Inspection Date

Enter date...

### Inspector Signature

## Control & Monitoring Systems

Check for proper function of SCADA, protective relays, and metering devices.

### SCADA System Uptime (Hours)

Enter a number...

### Relay Status - CB1

- OK
- Warning
- Error

### Last Relay Calibration

Enter time...

### Event Log Summary

Write something...

### Communication Latency (ms)

Enter a number...

### Battery Backup Status

- Online
- Standby
- Fault

# Emergency Power Systems

Test and inspect generators, UPS, and battery backup systems.

## Generator Voltage (V)

## UPS Battery Voltage (V)

## Battery State of Charge (%)

## Last Generator Test Date

## Time of Last Generator Start

### Generator Load Test Result

- Pass
- Fail
- N/A

### Notes/Comments

Write something...

## Fire Protection Systems

Verification of fire extinguishers, suppression systems, and alarm functionality.

### Last Fire Extinguisher Inspection Date

Enter date...

### Number of Fire Extinguishers Present

Enter a number...

### Fire Suppression System Status

- Operational
- Needs Maintenance
- Out of Service

### Fire Alarm System Status

- Operational
- Needs Maintenance
- Out of Service

### Last Fire Drill Time

Enter time...

### Notes/Observations Regarding Fire Protection Systems

Write something...

## Environmental Compliance

Assessment of oil containment, spill prevention, and waste disposal practices.

### Oil Level in Containment Dikes (Feet)

Enter a number...

### Last Spill Prevention Plan Review Date

Enter date...


### Waste Oil Storage Status

- Compliant
- Minor Issue
- Major Issue

### Environmental Permits Current?

- Air Permit
- Water Discharge Permit
- Hazardous Waste Permit

### Recent Environmental Audit Report

 Upload File

### Description of any Environmental Concerns

Write something...