



Distributed Energy Resources (DER) Integration Checklist 2026

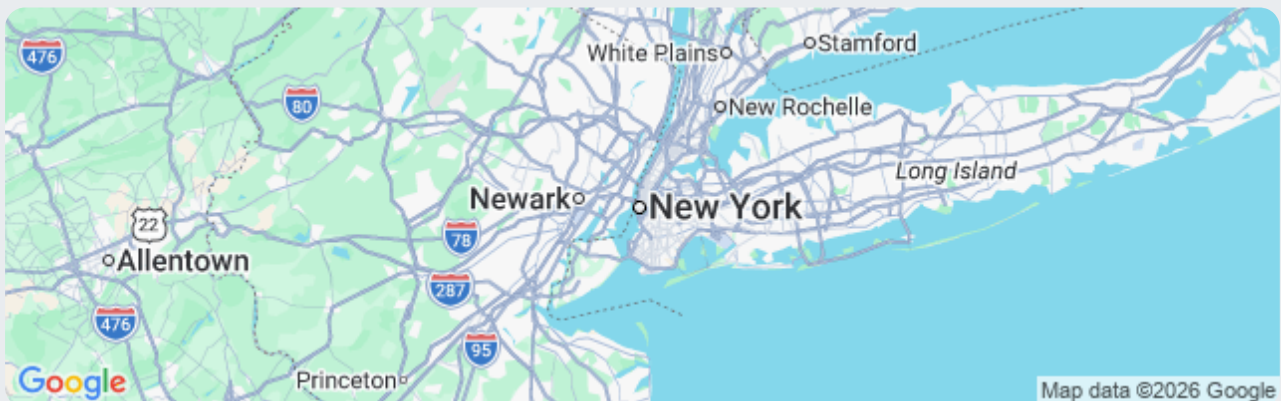
Pre-Integration Site Assessment

Evaluate existing grid infrastructure, interconnection points, and physical space availability for new DER assets.

Assessment Date

Site Site/Facility Name

 [Set My Current Location](#)



Existing Grid Connection Type

- ☐ Low Voltage (LV)
- ☐ Medium Voltage (MV)
- ☐ High Voltage (HV)

Available Transformer Capacity (kVA)

Enter a number...

Available Connection Points

- ☐ Main Distribution Board
- ☐ Substation Transformer
- ☐ Dedicated Service Entrance

Site Constraints & Obstructions Note

Write something...

Site Map or Single Line Diagram (SLD)

 Upload File

Lead Engineer Approval

Technical Specifications & Interoperability

Verify communication protocols (e.g., IEEE 2030.5, Modbus), inverter compatibility, and software integration requirements.

Primary Communication Protocol

- ☐ IEEE 2030.5
- ☐ Modbus TCP/RTU
- ☐ DNP3
- ☐ OpenADR
- ☐ SunSpec Modbus

Supported Inverter Features

- ☐ Volt-Var Control
- ☐ Volt-Watt Control
- ☐ Frequency Ride-Through
- ☐ Active Power Curtailment

Inverter Model & Serial Number

Write something...

Maximum Rated Capacity (kW)

Enter a number...

Technical Datasheet / Specification Sheet

 Upload File

Interoperability Gap Analysis Notes

Write something...

Regulatory & Grid Compliance

Ensure all installations meet 2026 utility interconnection standards, local building codes, and regional energy regulations.

Interconnection Agreement Status

- ☐ Approved
- ☐ Pending Review
- ☐ Under Revision
- ☐ Not Started

Permit Approval Date

Enter date...

Compliance Certification Document

 Upload File

Regulatory Standards Verified

- ☐ IEEE 1547 Standards
- ☐ NEC (National Electrical Code)
- ☐ UL Certification
- ☐ Local Utility Interconnection Agreement

Compliance Discrepancies or Notes

Write something...

Compliance Officer Approval

Hardware & Equipment Verification

Inspect physical components including solar PV modules, battery energy storage systems (BESS), and smart inverters for damage or defects.

Inspection Date

Enter date...

Inverter Status

- ☐ Operational
- ☐ Damaged
- ☐ Under Repair
- ☐ Not Installed

Measured Battery State of Health (SoH) %

Enter a number...

Components Inspected

- ☐ Solar PV Modules
- ☐ Battery Storage Units
- ☐ Charge Controllers
- ☐ DC/AC Inverters
- ☐ Transformer Units

Physical Damage Observations

Write something...

Equipment Datasheet/Certification Upload

 Upload File

Technician Verification Signature



Control Systems & Automation Setup

Configure Distributed Energy Resource Management Systems (DERMS) and automated demand response triggers.

Primary Communication Protocol

- ☐ IEEE 2030.5
- ☐ Modbus TCP/RTU
- ☐ DNP3
- ☐ OpenADR
- ☐ SunSpec Modbus

Integrated Automation Features

- ☐ Automatic Demand Response
- ☐ Peak Shaving
- ☐ Voltage Regulation
- ☐ Frequency Support
- ☐ Real-time Monitoring

DERMS Software Version

Write something...

Configuration Completion Date

Enter date...

Automation Logic Configuration File

 Upload File

Lead Systems Engineer Approval

Cybersecurity & Data Privacy

Implement encryption standards, firewall configurations, and secure remote access protocols for DER monitoring.

Encryption Protocol Used

- ☐ AES-256
- ☐ TLS 1.3
- ☐ RSA
- ☐ Other

Security Measures Implemented

- ☐ Multi-Factor Authentication (MFA)
- ☐ Firewall Configuration
- ☐ Intrusion Detection System (IDS)
- ☐ Regular Firmware Updates
- ☐ Endpoint Protection

Last Security Audit Date

Enter date...

Cybersecurity Compliance Certificate

 Upload File

Incident Response Plan Summary

Write something...

Security Officer Verification

Safety & Emergency Protocols

Verify rapid shutdown capabilities, fire suppression systems, and emergency disconnect accessibility.

Emergency Shutdown Mechanisms Verified

- ☐ Rapid Shutdown System (RSS) Tested
- ☐ Physical Disconnect Switch Accessible
- ☐ Automatic Grid-Disconnection Verified
- ☐ Emergency Stop Button Functional

Fire Suppression System Status

- ☐ Operational
- ☐ Requires Maintenance
- ☐ Non-Functional

Safety Certification Documents

 Upload File

Safety Officer Approval

Last Safety Audit Date

Enter date...

Performance Monitoring & Metering

Calibrate smart meters and establish real-time telemetry for monitoring energy generation and consumption data.

Meter Calibration Date

Enter date...

Current Energy Output (kW)

Enter a number...

Metering Accuracy Status

- ☐ Within Tolerance
- ☐ Outside Tolerance
- ☐ Requires Recalibration

Discrepancy Notes

Write something...

Calibration Certificate Upload

 Upload File

Technician Verification

Post-Commissioning Testing & Validation

Execute functional testing of all integrated assets under simulated grid load and outage scenarios.

Testing Completion Date

Enter date...

Grid Connection Stability Status

- ☐ Stable
- ☐ Intermittent
- ☐ Unstable/Requires Adjustment

Measured Peak Output (kW)

Enter a number...

Validated Test Procedures

- ☐ Inverter Functionality Test
- ☐ Battery Discharge/Charge Cycle Test
- ☐ Communication Latency Test
- ☐ Emergency Shutdown Verification

Discrepancies or Anomalies Observed

Write something...

Upload Commissioning Report/Logs

 Upload File

Lead Commissioning Engineer Approval

Operational Training & Documentation

Finalize maintenance schedules, operator manuals, and staff training records for the integrated DER system.

Training Completion Date

Enter date...

Training Module Completed

- ☐ System Hardware Overview
- ☐ Emergency Shutdown Procedures
- ☐ Software & Monitoring Interface
- ☐ Maintenance & Troubleshooting

Personnel Trained

- ☐ Site Engineers
- ☐ Facility Managers
- ☐ Maintenance Technicians
- ☐ Security Personnel

Upload Training Attendance Log

 Upload File

Training Summary & Notes

Write something...

Lead Trainer Authorization

< Previous

> Next

🔑 Finish

🔧 Generate Sample Report