

STOKES COUNTY INSPECTIONS DEPARTMENT

APPLICATION FOR PHOTOVOLTAIC (PV) SYSTEM

Solar Panels

Permit Fee: \$100.00

Date _____ Power Company _____

Location of Job _____

Property Owners Name _____ Phone _____

Current Mailing Address _____

Contractor Name _____ Phone _____

Office # _____ Cell phone: _____ Fax: _____

Address _____ License# _____

Structural Information

Roof Design

Weight of array: _____ lbs.

Array load concentration: _____ PSF

Dead load per support point: _____ lbs.

Roofing type (material): _____

Roof construction: ____ Rafters ____ Trusses ____ Other: _____

Rafter size: _____ X _____ inches

Rafter spacing: _____ inches

Maximum unsupported span: _____ feet, _____ inches

Wind Design

Is the PV system building integrated (BIPV): _____ Yes _____ No

If yes, skip to next section

If no, complete the rest of this section.

Is the PV system tilted over 18 inches above the roof? _____ Yes _____ No

If no, skip to next section

If yes, complete the rest of this section.

Wind load: _____ PSF

Total wind load on array: _____ lbs.

Maximum uplift per support connection: _____ lbs.

System Components

Component	Units	Manufacturer & Model Number
Photovoltaic Modules	_____	_____
Inverter	_____	_____
Roof-mounting System	_____	_____
AC Disconnect Switch	_____	_____
DC Disconnect Switch	_____	_____

Electrical Information

Complete the following information for EACH inverter with a unique configuration of solar modules.

Array Electrical Specifications:

Maximum Power Point Current (at STC) Produced by Array: _____A
Short Circuit Current Produced by Array: _____A
Maximum Power Point voltage (at STC) Produced by Array: _____V
Open Circuit voltage Produced by Array: _____V (refer to NEC 690.7)
STC Watts Produced by Array: _____W (DC)
PTC Watts Produced by Array: _____W (AC)

Array wiring and Calculations (DC):

Wiring type / Size: _____/_____AWG
Temperature Derated Ampacity of Wire*: _____A
NEC-Required Wire Ampacity: _____A
Equipment-Grounding Conductor Size: _____AWG (refer to NEC Table 250.122)

Source Circuits to Inverter Wiring and Overcurrent (DC)

Number of Wires/Type/Size: _____/_____/_____AWG
Temperature Derated Ampacity of Wire*: _____A
NEC-Required Wire Ampacity: _____A
Fuse Size (if applicable): _____A
Equipment-Grounding Conductor Size: _____AWG (refer to NEC Table 250.122)

Inverter to Grid-Tie Wiring and Overcurrent (AC):

Wiring type / Size: _____/_____AWG
Working Voltage: _____V
Temperature Derated Ampacity of Wire*: _____A
NEC-Required Wire Ampacity: _____A
Overcurrent Protection (AC breakers) Size: _____A
Equipment-Grounding Conductor Size: _____AWG (refer to NEC Table 250.122)

Maximum System Voltage Calculations:

Lowest Ambient Temperature for Site: _____°C
Low Temperature voltage Multiplier (per NEC): _____% (refer to NEC Table 690.7)
Maximum Voltage (DC) Produced by Array (VOX at STC): _____V
Maximum System Voltage (DC) at Low Temperature: _____V
AC Grounding Electrode Conductor Size: _____AWG
DC Grounding Electrode Conductor Size: _____AWG

*Refer to NEC Tables 310.16 or 310.17, NEC 690.31(A), NEC Table 310.15(B)(2)(a), NEC 310.10 FPN No. 2

Required Information: Attach the structural support engineered drawings for ground mount structures. Foundations on ground mount systems shall be inspected prior to pouring footing.

Site Plan: Attach a site plan showing the structure that supports the photovoltaic system and the system's location on the structure.

Electrical Information: Attach a complete electrical system drawings showing all loads and equipment for the photovoltaic system.

Signature: _____ **Date:** _____

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Required Inspection are as follows:

Ground Mounted Systems

Footing (prior to concrete & post)
Trench
Final

Roof Mounted Systems

Trench (if necessary)
Final

Battery Storage Systems

\$70.00 Battery Storage

\$100.00 Solar panel systems fee may be paid by the following options:

Check Payment Send to:

Stokes County Inspections
PO Box 20
Danbury, NC 27016

Or

Credit Card Payment Fax or email to:

336-593-5434

Email: lwilson@co.stokes.nc.us

Name on Card: _____

MC_____ Visa_____ Discover_____ Other_____

Card #: _____ Expiration Date: _____

Zip Code: _____ Amount: _____

This signature authorizes Stokes County to charge the credit card above in the Amount of
\$ _____.

Signature

Date