

**STOKES COUNTY INSPECTIONS DEPARTMENT**  
**APPLICATION FOR PHOTOVOLTAIC (PV) SYSTEM**  
Solar Panels

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:** 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.

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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**Required Inspection are as follows:**

**Ground Mounted Systems \$425.00**

**Footing (prior to concrete & post)**

**Trench**

**Final**

**Roof Mounted Systems \$500.00**

**Builder will need to provide video or photos for roof electrical connections at panels and will need engineer letter installation meeting their requirements**

**Trench (if necessary)**

**Final**

**Batteries- \$70 each**

**Plan review \$60 Plus .25 cents a page for printing plans**

**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:**

**Fax: 336-593-5434**

**Email: [jpotter@co.stokes.nc.us](mailto:jpotter@co.stokes.nc.us) OR [klandreth@co.stokes.nc.us](mailto:klandreth@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