



Solar Installation Permit Application Instructions

Before applying for permits to install a solar array in the City of Knoxville, please follow these steps to facilitate solar installations at your facility.

1. Are you a Licensed Contractor in the City of Knoxville?

If yes, please proceed to step 2.

If no, please call our office at **(865) 215-2999** for license application requirements.

2. Are solar installations allowed in your Zoning District?

If you're not sure, please call our office at **(865) 215-2999** to speak with a Zoning Inspector.

3. Are plans required for solar installations?

Yes, plans are required for review. The plans must provide the following information:

- Make and Model of PV panels with manufacturer's data showing size, weight, and maximum voltage and current outputs.
- Number of panels in a string, and number of strings on the roof.
- Total maximum DC voltage and amperage of system, or total AC voltage and amperage if micro-inverters are used.
- Size and location of fused combiner box, if applicable.
- Size and location of DC disconnect, Inverter, AC disconnect and Green Power meterbase.
- Wire types and sizes.
- Connection details from green power meterbase to KUB grid.
- Manufacturer's data on roof mounting system.
- Grounding details for individual modules.
- Grounding Electrode System connection details.
- Site plan showing orientation of PV panels on roof with clearances shown to roof edge, peak, and any chimneys, vents, skylights, or other roof penetrations.

4. Which permits are required?

Most solar array installations require a [Building permit](#) and an [*Electrical permit](#). The only exception is for installations that meet all 4 conditions below:

- Residential installation;
- Roof-mounted;
- Only 1 set of shingles on the roof;
- The installation does NOT cover more than 50% of the roof.

After plans are reviewed, and all 4 conditions above are met, then only an Electrical permit is required.

**Electrical Permits for Solar Installations are only issued to licensed contractors.*

For a building permit, please visit our website for instructions:

http://www.knoxvilletn.gov/government/city_departments_offices/plans_review_inspections/

If you have followed the steps above and are ready to apply for the electrical permit, please use the guide below for instructions.

Electrical Permit Instructions for Solar Installations

1. Base Permit Fee

As of 12/1/2012, the base fee is \$35.00. For solar arrays, there are additional fees for kW and equipment, which must be added to the base fee.

2. Electrical Heaters/Solar kW

Mark the appropriate quantity in the row that best fits the size of your system, and add the fee to the Line Total.

For example:

- a. For a 2.8 kW system, write 1 for QTY in the same row as "0 – 3.5kW" and \$2.00 in the Line Total.
- b. For a 30kW system, write 1 for QTY in the same row as "10.5kW – 25kW" and \$10.00 in the Line Total. Write 5 under QTY in the same row as "Additional kW over 25" and \$0.50 in the Line Total.

3. Other Equipment

For the purpose of electrical permitting, solar PV inverters are categorized as "other equipment." Write 1 for QTY, and \$10.00 in the Line Total. Multiple micro-inverters on a single system are counted as one.

4. Meter Centers & Generators

There is a \$5.00 fee for each disconnect. Most systems will have 2 disconnects (one for AC, one for DC). Mark the appropriate quantity in the "Disconnect" row, and add the total to Line Total.

A typical residential solar array electrical permit fee is between \$57.00 and \$65.00.

- Once you have completed the permit application, follow the instructions to submit the form and fees.
- If you have any questions, please call our office at (865) 215-2999 to speak with a Permit Technician.

ELECTRICAL Permit Application

BLDG PERMIT #: _____

Work site address: _____
(STREET ADDRESS WITH SUITE NUMBER)

- CAC/KEEM
- CAC Weatherization

TEMPORARY METER CENTER* \$30.00

RESIDENTIAL

Complete this section for Residential work associated with a Building Permit.

| NEW CONSTRUCTION | QTY | SERVICE SIZE | PRICE EACH | LINE TOTAL |
|--------------------------|-----|----------------|-----------------|------------|
| <input type="checkbox"/> | | 0 - 150 AMPS | \$75.00 / UNIT | |
| <input type="checkbox"/> | | 151 - 200 AMPS | \$80.00 / UNIT | |
| <input type="checkbox"/> | | 201 - 400 AMPS | \$100.00 / UNIT | |

Residential Electrical - No charge for outlets, switches, fixtures, sub-panels, etc. Continue to sub-total.

COMMERCIAL or RESIDENTIAL

Complete this section for all Commercial work, or Residential work that is NOT associated with a Building Permit.

NEW CONSTRUCTION
 SERVICE UPGRADE
 MAINTENANCE & REPAIR

Description of Upgrade or Maintenance/Repair Work:

| QTY | ITEM | LINE TOTAL | ITEM | LINE TOTAL |
|----------|---|------------|--|------------|
| | LUMINAIRE (EA) @ \$.50 | | ELECTRIC METERS | |
| | SWITCH (EA) @ \$.50 | | Less than 1 hp @ \$2.00 | |
| | RECEPTACLE (EA) @ \$.50 | | 1 hp - 10 hp @ \$4.00 | |
| | ELECTRIC HEATERS / SOLAR KW | | 10.1 hp - 20 hp @ \$5.00 | |
| | 0 - 3.5kW @ \$2.00 | | 20.1 hp - 50 hp @ \$5.50 | |
| 2 | 4kW - 10kW @ \$4.00 | | Greater than 50 hp @ \$6.00 | |
| | 10.5kW - 25kW @ \$10.00 | | METER CENTERS & GENERATORS | |
| | * Additional kW @ \$1.00 | | 0 - 200 Amps @ \$15.00 | |
| | ELECTRIC APPLIANCES | | 201 Amps - 800 Amps @ \$50.00 | |
| | ELECTRIC WATER HEATER (EA) @ \$3.00 | | 801 Amps - 3000 Amps @ \$100.00 | |
| | DRYER OUTLET (EA) @ \$3.00 | | 3001 Amps - 6000 Amps* @ \$200.00 | |
| | ELECTRIC STOVE OUTLET (EA) @ \$3.00 | | 4 DISCONNECT (EA) @ \$5.00 | |
| | GASOLINE DISPENSING PUMPS @ \$10.00 | | LOAD CENTER (EA) UP TO 100A @ \$5.00 | |
| | TRANSFORMERS / BANKS OF TRANSFORMERS | | *Additional 100A or fractional (EA) @ \$3.00 | |
| | 0 - 50 kVA @ \$10.00 | | ELECTRIC SIGNS | |
| | 100.1 kVA or more @ \$20.00 | | 0 - 2000 VA @ \$1.00 | |
| | 3 OTHER EQUIPMENT | | Greater than 2000 VA @ \$1.00 | |
| | WELDER, UPS, TRANSFER SWITCH | | | |
| | OR OTHER EQUIPMENT (EA) @ \$10.00 | | | |

*Temporary Meter Center and Remodel/Addition of 1 & 2 Family Units Excluded from Base Permit Fee

| | | |
|----------|-----------------|-----------|
| 1 | SUB-TOTAL | |
| | BASE PERMIT FEE | \$ 35.00* |
| | DOUBLE FEE? Y/N | |
| | TOTAL FEE DUE | |

Return this completed application to the City of Knoxville Inspections Department, 400 W Main Street, Suite 505, Knoxville, TN 37902, fax to 865-215-2627, or email to attachments@bldelections@knoxvilletn.gov.

This is not a permit to proceed with the work indicated above and no Electrical work shall be performed in the City of Knoxville until a permit is issued.

Inspections of electrical installations are conducted in accordance with all applicable codes adopted by the City of Knoxville. The 2011 National Electrical Code, City of Knoxville Ordinance 0-38-2010 for Electrical Installations, 2008 State of Tennessee Electrical Code - Chapter 0-780-02-01, & The City of Knoxville Code of Ordinances.

The required and first re-inspection of work are covered in the cost of the issued permit. The second re-inspection is subject to a charge of \$25. The third and all subsequent re-inspections are subject to a charge of \$50 per inspection. Payment is required before the inspection will be performed.

Company Name (print) _____ License Holder's Name (print) _____ Authorized Signature _____

Phone Number _____ Email _____ City Contractor's License Number _____ Dec-17