

**PICKENS COUNTY BUILDING CODES ADMINISTRATION**  
**222 MCDANIEL AVENUE, PICKENS, SC 29671**  
**TELEPHONE (864) 898-5950, fax (864) 898-5795**

***Electrical Power Upgrade for***  
**RESIDENTIAL STRUCTURES**

The following guidelines shall be used for the installation of new electrical service to an existing structure.

1. If you are not familiar with working with high voltage wiring, we would recommend that you utilize a licensed electrician to assist you with this change.
2. Apply for a permit from Pickens County Building Codes for a "Power Upgrade". The cost for this permit is the minimum of \$50.00
3. Have new service ready for switchover from old service. Call for inspection when ready. Refer to your **PERMIT NUMBER** when requesting an inspection. If your inspection passes, we will fax your power company to set or re-set the meter.
4. If you rewire all or part of a structure, you must call for a framing inspection so that we can inspect the electrical installation. The contractor or owner must be present for this inspection.
5. **Smoke Detectors**: If you do any modifications to the interior electrical system, **and** you can get into the attic area to access the wiring, it will be necessary to add a minimum of one (1) 110/120-volt electric smoke detector with battery back up in the area of the bedrooms. If the home is **rewired**, it will be necessary to add 110/120-volt electric – battery-back-up smoke detectors **inside** all bedrooms **and** outside bedroom areas **and** on each level.
6. If meter cans and panel boxes are not located back-to-back, a main disconnect shall be installed on the exterior of the structure, and a 4-wire system used to supply the sub-panel inside. Bond panel enclosure.
7. Bonding at the main panel goes to the neutral bus bar; bonding at a sub panel goes to the grounding bus bar. Remove the jumpers in the sub panel so the neutral and grounding bus bars are isolated. Bond panel enclosure.
8. Bond all building metal, panel enclosures, and metallic pipes. Metal boxes must also be bonded.
9. All bedrooms must be protected by Arch-Fault type over current protection devices. All receptacles located in bathrooms, kitchen countertops and on the exterior of the structure must be protected by Ground-Fault Circuit Interrupter.
10. Ground rod installation:
  - a. **All** electrical installations are required to have two (2) 8-foot ground rods installed 16 feet apart.
  - b. Top of grounding rods and ground wire shall be installed 8 inches below final grade. **Do not cover until approved.**
  - c. The ground wire must be a minimum of a # 4 soft copper continuous from meter can to both ground rods and attached to the ground rods with UL approved direct burial type clamps.
  - d. The vertical ground wire going to the meter can from the ground rod must be protected using rigid non-metallic electrical conduit up to 4 foot from grade level. Leave approximately 6 inches of ground wire unprotected at the top of the conduit.

**Electrical Power for an R.V.**

1. You must have the three (3)-prong RV plug with an "In-Use" cover.
2. 110-volt outlets must be Ground Fault Circuit Interrupter (GFCI) protected and enclosed in an "In-Use" Cover.
3. 50 amps maximum.
4. You must have two (2) 8-foot ground rods 16 feet apart.