



## **STANDBY GENERATOR INSTALLATION CHECKLIST For Emergency Backup Power Only**

A permanent hard-wired generator or transfer switch for a portable generator are two options for providing backup power to a home during Public Safety Power Shutoffs or area wide electricity outages. To install either, the appropriate permits must be obtained.

The City recommends against homeowners or inexperienced contractors attempting this complex installation. Hire a licensed contractor with generator/transfer switch and fuel line installation experience. The work must be performed in accordance with the manufacturer's instructions as well as California Electrical Code (CEC), Mechanical Code (CMC) Fire Code (CFC) and Healdsburg Municipal Code (HMC).

Note: Hard-wired generator/transfer switches are to be used **ONLY** during Public Safety Power Shutoffs or area wide electricity outages.

- Permit application must be filled out and submitted for review. The application must include 4 sets of plans and 3 sets of supporting documents and:
  - a. Plans of sufficient clarity to indicate the location, nature, and extent of work.
  - b. Standard architectural symbols must be used, **all plan sheets must be uniform in size**, and a minimum of 11" x 17".
  - c. All plan sheets must include a Title Block with such information as owner's name, plan preparer's name and phone number/email address, project address.
  - d. The plan preparer must sign each plan sheet.
  
- TITLE PAGE:** This includes; complete project description, sheet index, symbol index, general notes. On the plan indicate the current Code Editions: 2022 Calif Electrical Code, 2022 Calif Mechanical Code, 2022 Calif Plumbing Code, 2022 Calif Fire Code, and City of Healdsburg Municipal Code.
  
- SITE PLAN:** must be to scale and include pertinent dimensions, showing property lines, streets, driveways, setbacks and locations of all service utilities, buildings, structures, pools and easements. A survey might be required if the proposed work is close to the setbacks, or if property lines are not apparent. Indicate the location of:
  - a. Generator.
  - b. Transfer switch.
  - c. Disconnect for generator.
  - d. Electrical service main.

- e. Sub-panel(s).
  - f. Feeder or branch circuit.
  - g. Gas meter.
  - h. Generator's fuel gas piping.
- Provide the generator manufacturer's installation instructions/specification, brand and model number.
  - Provide spec sheet(s) for the automatic transfer switch and panel board and equipment.
  - Clearly indicate the location of the existing electrical service meter and the amp rating of the main service disconnect(s). Specify whether this equipment will be:
    - a. Relocated, to where?
    - b. Replaced, with what?
  - Include a single line diagram for electrical:
    - a. Generator maximum amps output for the proposed fuel type.
    - b. Main electrical service amps.
    - c. Size and type of overcurrent protective devices.
    - d. Feeder types and sizes of conductors, including grounding and conduit.
  - Provide conductor type and size, including sizing method:
    - a. The ampacity of the conductors from the generator output terminals to the first distribution device(s) containing overcurrent protection shall not be less than 115% of the nameplate current rating of the generator per CEC 455.13(A).
    - b. The neutral conductor can be sized in accordance with CEC 220.61.
  - Identify the location of the generator's disconnecting means per CEC 445.18. Also note that the disconnecting means shall:
    - a. Be lockable in the open position.
    - b. Simultaneously open all associated ungrounded conductors.
  - Include additional electrical general notes regarding verification of, or provision for installing:
    - a. Ufer ground or 2 rod type grounding electrodes.
    - b. Water service grounding.
    - c. Bonding of the dwelling's interior piping system to the main electrical service.
    - d. Grounding and bonding of the generator and transfer switch in accordance with the manufacturer installation instructions.
  - Per CEC 225.37, where a building has any combination of feeders, branch circuits, or services supplying it, a permanent plaque or directory shall be installed at each feeder and branch circuit disconnect location denoting all other services, feeders, or branch circuits supplying that building and the area served by each. On the plan, include the location and wording for the identification plaque such as: "CAUTION: BACKUP POWER GENERATOR - DUAL POWER SOURCE ON SITE." And: "Second power source is located at \_\_\_\_\_."
  - Single line diagram for fuel gas supply:

- a. Type of fuel.
- b. Fuel pipe material including risers, isolation fittings, and tracer wire.
- c. Location of fuel pipe. Specify burial depth or above ground clearance and method of attachment.
- d. For NG, provide gas pipe line sizing calculations.
- e. For other fuel types, provide storage tank size, spill prevention, and seismic bracing method.

- Include on the plan the generator manufacturer clearance requirements to adjoining structures.

The generator must be installed on a concrete pad minimum 4" thick with #3 rebar at 18" O.C. each way. The pad must extend 6" beyond the sides of the generator, and the top of pad must be a minimum of 3" above finished grade.

- The generator must be anchored to the concrete pad with corrosion resistant bolts at each corner, in accordance with the manufacturer's installation instructions and constructed to sustain vertical and horizontal loads within the stress limitations specified in the building code.
- Generators are required to be setback a minimum of 5 feet from side and rear property lines. The site plan must identify a setback which is in compliance with this standard of the Healdsburg Land Use Code Section 20.16.020(D).