

**HUMBOLDT COUNTY BUILDING DEPARTMENT
ALTERNATIVE ELECTRIC POWER SOURCES**

Alternative power sources are permitted in Humboldt County as permitted by adopted codes.

Structural and electrical permits are required to install these systems. Plans must be submitted for review by the Building Department and permit obtained before work begins.

Alternative systems may include the following:

- Generator (fuel source)
- Solar panels (photovoltaic)
- Wind generator
- Batteries

Plan submittal must include the following

- _____ Type of power source (generator, wind tower, solar system, batteries, etc)
- _____ Provide a site/plot plan with location of all buildings, equipment locations, underground electrical runs (including material sizes & wire sizes). Show location of the service and sub-panel (including amperage rating). Also any other equipment including inverter/converters/transfer switches (type auto or manual) at the service.
- _____ Specifications on all equipment from manufacturer
- _____ Structural design loads, which comply with, adopted codes (We may require theses to be stamped by a Nevada engineer). Design criteria shall be provided (wind, seismic, live load, dead loads, foundation design (if applicable))
- _____ Amp rating & kilowatt rating of equipment
- _____ Electric wiring schematic
- _____ A permanent building for the generator is required. This building must be structurally sound and built to minimum code requirements whether it requires a permit or not. (130 detached max. square feet to be exempt from permit requirements otherwise building plans are required) If attached to a residence must be separated by the same requirement as a garage.
- _____ Generator or system purchased, as a premanufactured system and within their own prebuilt enclosure must be tied down to prevent damage and be approved for exterior use.
- _____ Generator – fuel source, tank location, tank type, tank size, piping etc. Some items on the power source require power at all times (refrigerator, smoke detector etc)

- _____ Indicate grounding electrode system (AC & DC system)
- _____ Sizing of system shall provide adequate amperage to operate proposed systems on site. Manufactured houses installation is based on the rating from the factory label. Otherwise electrical calculations may be required to determine adequate amperage is provided.
- _____ Rack storage – type for batteries
- _____ Batteries shall be separated from other areas or power sources by minimum ½” sheetrocked wall.
- _____ One line drawing indicating the following:
1. Tie in to grid system equipment
 2. Photovoltaic panels and arrangement
 3. Overcurrent protection devices (rating & type)
 4. Conductor sizes, types & wiring method
 5. Amperage rating
 6. Inverter type & rating
 7. Battery system (location, separation, size, number, etc)
 8. Provide a load calculation of what the total amperage provided by alternative system.
 9. Indicate if solar modules will be wired in services or parallel. If not provided assume wired parallel.
 10. Provide specification sheets on all equipment.
- _____ Provide attachment details for system attached to a building or other structure. Provide dead load or other calculation to determine load on the building. (May be required to be stamped by a Nevada engineer). Applicant must also provide data that the building or structure can support the load.
- _____ Electrical floor plan required for the building, which houses the equipment.
- _____ Indicate vents in building to vent gases from batteries, generator or other equipment.
- _____ All wiring must comply with the most current adopted National Electric Code.