

GRANT COUNTY BUILDING DEPARTMENT

457 1ST AVE PO BOX 37

EPHRATA, WA 98823

PHONE (509) 754-2011 EXT 344 FAX (509) 754-6080

Requirements For Structures Off The Commercial Power Grid

PLEASE ANSWER THE FOLLOWING QUESTIONS TO SATISFY THE BUILDING CODE REQUIREMENTS FOR YOUR STRUCTURE.

1. Indicate your power source.
 - _____ SOLAR PANELS
 - _____ WIND MILLS
 - _____ HYDRO/ WATER
 - _____ FOSSIL FUELS SUCH AS GAS/DIESEL FOR GENERATORS
 - _____ OTHER _____

2. Provide data from the product manufacturer or a design professional competent in this field that demonstrates the systems capability of providing the power to operate all systems combined. Explain in detail how your power will be sustained or stored to operate required systems such as whole house ventilation, smoke detectors, bathroom exhaust fans, lighting and heating equipment. (The most common practice is battery storage in a ventilated room or mechanical storage area.)

3. Have you contacted the Grant County Health Department about the septic system?
 - YES / NO

4. Are you planning on using an alternate system for toilet, sink, or shower disposal?
 - YES / NO If yes, show how the system will comply with the current Uniform Plumbing Code (UPC)

5. Have you contacted the Grant County Health Department about the water supply system?
 - YES / NO

6. Are you planning on using an alternate water supply system other than a well?
- YES / NO If yes, demonstrate its capacity for supplying a minimum of 350 gallons of potable water per day for a period of not less than 3 days
-
-
-
-
7. Have you contacted the Washington State Department of Labor and Industries for the minimum requirements to support the electrical system? (509) 764-6921
- YES / NO

There are no specific requirements in the International Residential Code (IRC) or the Ventilation and Washington State Indoor Air Quality Code (VIAQ) for homes to be constructed on a commercial power system. However, there are provisions of the code that do require energy for their operation. Alternative sources of energy may be utilized to achieve compliance with these provisions.

Alternative energy systems are considered by Grant County to fall under the scope of IRC 104.11 and VIAQ 102.1 "Alternative materials, design and methods of construction and equipment". Grant County requires that the plans and specifications for alternative energy sources be stamped and authenticated by an engineer, architect, or other qualified professional licensed to practice in the State of Washington. Following is a list of code requirements that involve energy consumption for their operation.

Heating

"When the winter design temperature in Table 301.2 (1) is below 60 degrees Fahrenheit (16 degrees C), every dwelling unit shall be provided with heating facilities capable of maintaining a minimum room temperature of 68 degrees F (20 degrees C) at a point 3 feet (914mm) above the floor and 2 feet (610mm) from exterior walls in all habitable rooms at the design temperature. The installation of one or more portable space heaters shall not be used to achieve compliance with this section." IRC 303.8

Washington State Amendment 303.8.2 notes "Primary heating sources in all new and substantially remodeled buildings in designated areas shall not be dependent upon wood stoves". Section 303.8.3 also notes "No used solid fuel burning device shall be installed in new or existing buildings unless such device is United States Environmental Protection Agency (USEPA) certified or a pellet stove either certified or exempt from certification by the USEPA".

Smoke Detectors: Power Source

"In new construction, the required smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for over current protection. Smoke

alarms shall be permitted to be battery operated when installed in buildings without commercial power or in buildings that undergo alterations, repairs or additions regulated by Section 313.1.1”.

Sanitation

“Every dwelling unit shall be provided with a water closet, lavatory and a bathtub or shower”. IRC 306.1

“Each dwelling unit shall be provided with a kitchen area and every kitchen area shall be provided with a sink”. IRC 306.2

“All plumbing fixtures shall be connected to an approved water supply. Kitchen sinks, lavatories, bathtubs, showers, bidets, laundry tubs and washing machine outlets shall be provided with hot and cold water”. IRC 306.4

Ventilation and Indoor Air Quality (VIAQ)

“Each dwelling unit or guest room shall be equipped with source specific and whole house ventilation systems designed and installed to satisfy the ventilation requirements of this Section”. VIAQ 302.1.2

The remaining text of the VIAQ is not listed here, however examples of some of these requirements are source specific fans of minimum 50 CFM in each bathroom and laundry room and Whole House Ventilation designed to service the building size.

Any and all electrical components installed are required to be approved, permitted and inspected by the Washington State Department of Labor and Industries.

In addition, we recommend contacting the Grant County Public Utility District (PUD) to discuss alternative energy sources. The PUD is a good source of information regarding energy issues and may provide useful information regarding future connection to the power grid.

Building Permits are required in Grant County prior to start of construction. Please contact our office in the early stages of planning your project for additional information.