



Development Services Department  
 Building Inspection Division  
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 Roseville, California 95678-2649  
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# Energy Form for Residential Water Heater Replacement

Prescriptive Compliance-CF1R-ALT-01-E

Enforcement : City of Roseville	Permit Number: BD
Project Address:	Climate Zone: 11
Building Type: <input type="checkbox"/> Single family <input type="checkbox"/> Duplex/Halfplex	Date:

Water Heating Systems (Section 150.2(b) 1G) <sup>1</sup>							
1	2	3	4	5	6	7	8
Water Heating System Identification or Name	Water Heating System Type	Water Heater Type	# of Water Heaters in System	Water Heater Storage Volume	Fuel Type	Rated Input Type	Rated Input Value
9	10	11	12	13	14	15	
Heating Efficiency Type	Heating Efficiency Value	Standby loss (%)	Exterior Insulation R-Value	Back-Up Solar Savings Fraction	Central DHW System Distribution Type	Dwelling Unit DHW System Distribution Type	

For water replacements, install piping insulation per mandatory measures requirements. Insulation for existing accessible piping must meet the requirements of Sections 150.0(j) 2Ai, ii and iv.

Responsible Person's Declaration Statement	
I certify the following under penalty of perjury, under the laws of the state of California: <ul style="list-style-type: none"> <li>I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system identified on this Certificate of Compliance.</li> <li>That the energy features and performance specifications, materials, components, and manufactured devices for the building design or system identified on this certificate of Compliance conform to the requirements of Title 24, part 1 and Part 6 of the California Code of Regulations.</li> <li>The building design features or systems identified on this certificate of compliance are consistent with the information provided on other applicable compliance document, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.</li> </ul>	
Name:	Signature:
Company:	Date:
Address:	License:
City/State/Zip:	Phone:

### **CF1R- ALT-01- E User instructions:**

Water heating compliance for an alteration is described in Section 150.2(b)1G. For a single dwelling unit, a gas or propane water heater that meets the requirements of 150.1(c)8 can be used. If no natural gas is connected to the building, an electric water heater with an energy factor greater than or equal to the minimal energy factor required under the Appliance Efficiency Regulation, and with storage capacity of less than 60 gallons can be used. Dwelling Unit distribution systems are limited to Standard trunk and branch or demand recirculation for gas or propane water heater. If there is no natural gas connected to the building, an electric water heater may be replaced with another electric water heater. However, changing from gas to electric is not allowed unless the conditions of Section 150.2(b)1Giic or 150.2(b)1Giid are met. Multi-family central systems must use certified equipment as defined under Section 110.1 and 110.3.

1. **Water Heating System Identification or Name:** Enter a unique name for the Water Heating System.
2. **Water Heating System Type:** Domestic Hot Water (DHW), Hydronic, Combined Hydronic, or Central. DHW is for domestic hot water, hydronic is a water heating system used for space heating only; combined hydronic are when the water heater will provide both space conditioning and domestic hot water.
3. **Water Heater Type:** For non-central systems only Small Storage or Small Instantaneous are allowed. For central systems pick from Large Storage, Small Storage, Heat Pump, Boiler, Large Instantaneous, Small Instantaneous or Indirect.
4. **Number of Water Heaters in System:** In single family and multi-family with water heaters in each dwelling units the value is 1. For multi-family central systems serving multiple dwelling units enter the total number of water heaters.
5. **Water Heater Volume (gal):** Tank capacity in gallons. For individual water heaters for a dwelling unit this will be 60 gallons or less. If instantaneous, enter n/a. For multi-family central systems enter the total storage volume.
6. **Fuel Type:** Gas, Propane, Electric (only if natural gas is not connected, or if the conditions of Section 150.2(b)1Giic or 150.2(b)1Giid are met)
7. **Rated Input Type:** Enter the equipment input rating type. For gas or propane fired system the units are Btuh, for electric fired system the units are kW.
8. **Rated Input Value:** Enter the numeric value of rated input.
9. **Heating Efficiency Type:** Energy Factor, AFUE, or Thermal Efficiency. From product literature or a California Energy Commission directory.
10. **Heating Efficiency Value:** Enter the value from product literature or a California Energy Commission directory
11. **Standby Loss (percent):** Applies only to large storage water heaters. Enter N/A for small storage or instantaneous water heaters.
12. **Exterior Insulation R-Value:** Enter the R-value if exterior insulation on the storage tank is installed
13. **Back-Up Solar Savings Fraction:** If compliance requires a back-up solar system, indicate the solar contribution (e.g., 0.30). External calculations are required.
14. **Central DHW Distribution System:** For multi-family buildings with using a central distribution system a demand recirculation system with at least two distribution loops must be installed. This requirement applies to any building with eight or more units. If the system is non-central or project is individual units enter N/A.
15. **Dwelling Unit DHW Distribution Type:** For a Central DHW this field shall be Standard. If non-central then pick from Standard, Demand Recirculation – Manual Control, Demand Recirculation – Sensor Control.