Development Services Group
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City of Elk Grove
Community Development

Residential Electric Heat Pump - Water Heater Conversion Checklist

January 2026

X	**Online Electronic Submittal Required.** All plans and supporting documents shall be submitted electronically through our eTrakit permit portal.
	A partial floor plans showing the location and single-line drawing, which represents the conductors, switches and breakers.
	Provide technical specifications for the make and model of the unit. (i.e., Energy Star Certified).
	Indicate the size of the existing electrical service panel.
	A complete electric load calculation (CEC 220) to verify that the electric service panel can accommodate the additional load of the (EHPWH).
	Specify an electrical disconnect means through a circuit breaker or lockable switch that is within sight (CEC 424) of the appliance.

I understand a submittal missing any of the above listed items will be deemed incomplete and the plan check will not be scheduled until the Building Department receives all of the required items. This may affect applicable fees and codes since the official date of the application will be the date on which a complete application is received.

☐ **All the items required on this checklist are present and complete.**

Print Name: _____ Phone: _____

Email Address: _____

Signature: _____ Date: _____

I am the: ☐ **Building owner** ☐ **Business owner** ☐ **Contractor** ☐ **Agent of the owner**

Electrical Load Calculation Worksheet

THIS SHALL BE ON THE JOB SITE AT ALL TIMES **(1) COPY REQUIRED**

Job Address: _____ **Permit #:** _____

Contractor/Owner/Authorized Agent: _____

Phone #: _____ **Email Address:** _____

Number	Ite	Watts
	Sq. Ft, @ 3 Watts per Sq. Ft - 220.41	
	20 Amps. Appliance circuits @ 1500 watts each - 220.52(A)	
	Range (Nameplate Rating = N.P.R.)	
	Oven (N.P.R.)	
	Cooking Units (N.P.R.)	
	Water Heater (N.P.R.)	
	Dishwasher (N.P.R.)	
	Disposal (N.P.R.)	
	Washer [(1500 watts min. N.E.C. 220.52(B)]	
	Dryer [(5000 watts min. or N.P.R. if larger) N.E.C. 220.54]	
	Motors (N.P.R.)	
	Other (N.P.R.)	
	Other (N.P.R.)	

Air Conditioning Example (not heat pump)

Compressor 20 amps
Fan 5 amps
Unit Total Load =25 amps x 240V
Elec. Furnace @ N.P.R.=6000 watts x 65% = 3900 watts
Use 6000 watts since it is larger

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Heat Pump Example

Compressor 20 amps
Fan 5 amps
Unit Total Load = 25 amps x 240V = 6000 watts
Aux. Heat Strip = 6000 watts x 65% = 3900 watts
Total Heat Pump Load = 9900 watts

Heat Pump Note:
When doing load calculations where heat pumps are installed, the load for most heat pumps that are equipped with auxiliary heat strips will be larger under the demand for heat. For purposes of load calculations only, on heat pump compressor and fans use 65% of auxiliary heat **load to show** total heat pump load.

Air Conditioning Equipment Air Conditioning [cooling (N.P.R. x 100%)] =	Subtotal = _____ (Loss 1st 10KW – 10,000 @ 100% = 10,000 Watts
Electrical Heating @ (N.P.R. x 65% =	Remainder @ 40% _____ @ 40% _____ Watts
NOTE: Use the largest load - Heat or Cool =	Total Air Cond. and/or heat pump load = _____ Watts
Heat pump (compressor & fans) x 100% =	Total Service Load = _____ Watts
Aux. Heat strips (or elect. furnace) x 65% =	Total Service Load _____ Watts 240V = _____ Amps
Total Heat Pump Load =	Service Size _____
NOTE: Amps x Circuit Voltage = Watts	
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