


COUNTY OF VENTURA RESOURCE MANAGEMENT AGENCY Building and Safety Division	ORIGINAL March,08 2019	POLICIES AND INTERPRETATIONS POLICY NO. 2019-E002
Topic: Page 1 of 3 Electric Vehicle Charging Service Load Calculator	REVISED:	Ruben Barrera, CBO Building Official 

SERVICE LOAD CALCULATOR

Instructions: Review the list of electrical loads in the table below and check all that exist in your home (don't forget to include the proposed Level 2 charger). For each item checked, fill in the corresponding "Watts Used" (refer to the "Typical Usage" column for wattage information). Add up all the numbers that are written in the "Watts Used" column and write that number in the "TOTAL WATTS USED" box at the bottom of the table. Then go to the next page to determine if your existing electric service will accommodate the new loads.

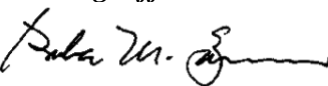
Note: Loads shown are rough estimates; actual loads may vary. For a more precise analysis, use the nameplate ratings for appliances and other loads and consult with a trained electrical professional.

****This completed Load Calculator and signed Statement of Compliance is required to be provide to the inspector at the time of the first inspection. ****


Alternatively, the calculation of a feeder or service load for existing installations shall be permitted to use actual maximum demand to determine the existing load under ALL of the following conditions (CEC 220.87):

- 1. The maximum demand data is available for a 1-year period.*
- 2. The maximum demand at 125 percent plus the new load (EVSE) does not exceed the ampacity of the feeder or rating of the service.*
- 3. The feeder has overcurrent protection in accordance with 240.4, and the service has overload protection in accordance with 230.90.*

Provide a minimum of 1-year of the most recent utility bills identifying the project location and a calculation as outlined above justifying the additional load with your submittal.

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Check All Applicable Loads	Description of Load	Typical Usage	Watts Used
<input type="checkbox"/>	GENERAL LIGHTING AND RECEPTACLE OUTLET CIRCUITS		
<input type="checkbox"/>	Sq. ft. of the house: _____ (multiply by 3 watts/sq.ft.)	3 watts/sq.ft.	
<input type="checkbox"/>	KITCHEN CIRCUITS		
<input type="checkbox"/>	Kitchen Circuits	3000 watts	
<input type="checkbox"/>	Electric Oven	2000 watts	
<input type="checkbox"/>	Electric Stove Top	5000 watts	
<input type="checkbox"/>	Microwave	1500 watts	
<input type="checkbox"/>	Garbage Disposal under Kitchen Sink	1000 watts	
<input type="checkbox"/>	Automatic Dish Washer	3500 watts	
<input type="checkbox"/>	Garbage Compactor	1000 watts	
<input type="checkbox"/>	Instantaneous Hot Water at Sink	1500 watts	
<input type="checkbox"/>	LAUNDRY CIRCUITS		
<input type="checkbox"/>	Laundry Circuit	1500 watts	
<input type="checkbox"/>	Electric Clothes Dryer	4500 watts	
<input type="checkbox"/>	HEATING AND AIR CONDITIONING CIRCUITS		
<input type="checkbox"/>	Central Heating and Air Conditioning	6000 watts	
<input type="checkbox"/>	Window Mounted Air Conditioning	1000 watts	
<input type="checkbox"/>	Whole-House or Attic Fan	500 watts	
<input type="checkbox"/>	Central Electric Furnace	8000 watts	
<input type="checkbox"/>	Evaporative Cooler	500 watts	
<input type="checkbox"/>	OTHER ELECTRIC LOADS		
<input type="checkbox"/>	Electric Water Heater (Storage Type)	4000 watts	
<input type="checkbox"/>	Electric Tankless Water Heater	15000 watts	
<input type="checkbox"/>	Swimming Pool or Spa	3500 watts	
<input type="checkbox"/>	Other (Describe)	watts	
<input type="checkbox"/>	Other (Describe)	watts	
<input type="checkbox"/>	Other (Describe)	watts	
<input type="checkbox"/>	ELECTRIC VEHICLE CHARGER CIRCUIT		
<input type="checkbox"/>	Level 2 EV Charger Wattage: _____ (multiply by 1.25)		
TOTAL WATTS USED			

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The table below is based on CEC 220.83(A) and Annex D.

1	2	3	4
Check the Appropriate Line	Total Watts Used (from Previous Page)	Minimum Required Size of Existing 240-Volt Electrical Service Panel (Main Service Breaker Size)	Identify the Size of Your Existing Main Service Breakers (Amps) *
<input type="checkbox"/>	Up to 24,000 W	100 amps	
<input type="checkbox"/>	24,001 - 30,000 W	125 amps	
<input type="checkbox"/>	30,001 - 36,000 W	150 amps	
<input type="checkbox"/>	36,001 - 48,000 W	200 amps	
<input type="checkbox"/>	48,001 - 54,000 W	225 amps	
* Note: The size of your existing service (column 4) MUST be equal to or larger than the Minimum Required size (column 3) or a new larger electrical service panel will need to be installed in order to satisfy the electrical load demand of the EV charger			

STATEMENT OF COMPLIANCE

By my signature, I attest that the information provided is true and accurate.

Installation Address: _____

Signature: _____ Date: _____

In addition to this document, you will also need to provide a copy of the manufacturer’s installation literature and specifications for the Level 2 charger you are installing.

Note: This is a voluntary compliance alternative and you may wish to hire a qualified individual or company to perform a thorough evaluation of your electrical service capacity in lieu of this alternative methodology. Use of this electrical load calculation estimate methodology is at the user’s risk and carries no implied guarantee of accuracy. Users of this methodology and these forms are advised to seek professional assistance in determining the electrical capacity of a service panel.