



# Residential Electrical Load Calculation

(Optional Method – Article 220.82)

Revised: Jan, 2026

Project Address: \_\_\_\_\_

### Step 1- Estimate General Electric Load

Square Footage of Structure	_____	General Lighting Load	3	_____
Small Appliance Circuit – 2 min.	_____	Small Appliance Circuits	1,500	_____
Laundry Circuits – 1 min.	_____	Laundry Circuits	1,500	_____
			<b>Step 1 Total=</b>	_____

### Step 2 – Estimate General Appliances and Motors Electric Load, Except HPWH, Heating and AC

	# of units		Common Values	
Dish Washer	_____	X	1,200	_____
Disposal	_____	X	1,000	_____
Microwave	_____	X	1,500	_____
Range Hood	_____	X	800	_____
Refrigerator	_____	X	1,400	_____
Jacuzzi Tub	_____	X	800	_____
Pool/Spa	_____	X	3,500	_____
Electric Range	_____	X	8,000	_____
Electric Oven	_____	X	5,000	_____
Electric Clothes Dryer	_____	X	5,000	_____
Electric Water Heater	_____	X	4,500	_____
Electric Vehicle Charging Supply	_____	X	9,000	_____
Other _____	_____	X		_____
Other _____	_____	X		_____
			<b>Step 2 Total=</b>	_____

### Step 3 – Estimate HPWH, Heating and AC Electric Load

	# of units		Common Values	
Electric Heat Pump Water Heater	_____	X	3,500	_____
A/C Heat up to 8 Kw	_____	X	8,300	_____
A/C Heat up to 15 Kw	_____	X	14,000	_____
A/C Heat up to 20 Kw	_____	X	22,400	_____
Cond/Heat Pump up to 2 T	_____	X	3,500	_____
Cond/Heat Pump up to 4 T	_____	X	5,500	_____
Space Heater(s)	_____	X		_____
Other Heating/Cooling	_____	X		_____
			(Box 2-10,000 VA) x 40%	<b>Step 3 Total=</b> _____

### Step 4 – Determining Minimum Electrical Service Panel

Total General Load, Excl HPWH, Heating/AC (Add Step 1 + Step 2)	_____	Box 1
First 10,000 VA of General Load at 100%	_____	Box 2
Remaining General Load After First 10,000 VA (Box 1-10,000)	_____	
Remaining General Load at 40%	_____	Box 3
Total HPWH, Heating/Cooling Load at 100% (From Step 3 Total)	_____	Box 4
Total Adjusted House Load (Add Box 2 + Box 3 + Box 4)	_____	Box 5
Minimum Service Ampacity – Box 5 Divided by 240	_____	Min. MSP Required

Completed by: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_