



RESIDENTIAL ELECTRIC LOAD CALCULATION (SIMPLE METHOD)

Revision Date: 4/10/2025

Name:
 Address:

STEP 1 Estimate General Electric Load Excluding Heating and AC

						Volt Amps
Square Footage of Structure	<input style="width: 40px;" type="text"/>	General Lighting Load	3	Watts per square foot	=	<input style="width: 40px;" type="text"/>
# of Small Appliance Circuits (2 min.)	<input style="width: 40px;" type="text"/>	# Small Appliance Circuits	1500	Watts each	=	<input style="width: 40px;" type="text"/>
# of Laundry Circuits (1 min.)	<input style="width: 40px;" type="text"/>	# Laundry Circuits	1500	Watts each	=	<input style="width: 40px;" type="text"/>
Step 1 Total =						<input style="width: 40px;" type="text"/>

STEP 2 Estimate Heating/AC Electric Load

A/C Condensor & Fixed Space Heating						Volt Amps
	# of units		Common Values			
A/C Heat up to 8 kW	<input style="width: 40px;" type="text"/>	x	8300	=	<input style="width: 40px;" type="text"/>	
A/C Heat up to 15 kW	<input style="width: 40px;" type="text"/>	x	14000	=	<input style="width: 40px;" type="text"/>	
A/C Heat up to 20 kW	<input style="width: 40px;" type="text"/>	x	22400	=	<input style="width: 40px;" type="text"/>	
Cond/Heat Pump to 2 T	<input style="width: 40px;" type="text"/>	x	2500	=	<input style="width: 40px;" type="text"/>	
Cond/Heat Pump to 4 T	<input style="width: 40px;" type="text"/>	x	5500	=	<input style="width: 40px;" type="text"/>	
Cond/Heat Pump to 5 T	<input style="width: 40px;" type="text"/>	x	7000	=	<input style="width: 40px;" type="text"/>	
Other Electric Heating Device	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>
Step 2 Total =						<input style="width: 40px;" type="text"/>

STEP 3 Estimate Other Electric Load

Dedicated Equipment								
	# of units		Common Values					
Electric Water Heater	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt	<input style="width: 40px;" type="text"/>	(Watts)	=	<input style="width: 40px;" type="text"/>
Refrigerator	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		4,500
Freezer	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		1,400
Dishwasher	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		600
Disposal	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		1,200
Range Hood	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		800
Microwave	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		600
Mini Fridge	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		1,500
Instant Hot Water Unit	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		900
Jacuzzi Tub	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		800
EVSE	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	x 1.25	=	<input style="width: 40px;" type="text"/>	
Res. Elevator	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		
Step 3 Total =						<input style="width: 40px;" type="text"/>		

STEP 4 Estimate Major Equipment Load

Major Equipment								
	# of units		Common Values					
Cook Range	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		8,000
Cook Oven	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		5,000
Clothes Dryer	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		5,000
Pool Motor	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		
Pool Heater	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		
Pool Light	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		300
Patio Heaters	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		1,500
Step 4 Total =						<input style="width: 40px;" type="text"/>		
Heat Pump Water Heater	<input style="width: 40px;" type="text"/>	x	<input style="width: 40px;" type="text"/>	Volt Amps from Label	=	<input style="width: 40px;" type="text"/>		

STEP 5 Determine Whether Electric Service Panel Requires Upgrade

Total General Load excl Heating/AC (Add Steps 1, 3 and 4 Totals)	<input style="width: 40px;" type="text"/>	(Box 1)
Heat Pump Water Heater Electrical Load	<input style="width: 40px;" type="text"/>	(Box 2)
General Service Load (Add Box 1 + Box 2)	<input style="width: 40px;" type="text"/>	(Box 3)
First 10,000 Volt Amps at 100%	<input style="width: 40px;" type="text"/>	(Box 4)
Remaining General Service Load at 40% = (Box 3 - 10,000) x 40%	<input style="width: 40px;" type="text"/>	(Box 5)
Heating/Cooling Load at 100% (from Step 2 Total)	<input style="width: 40px;" type="text"/>	(Box 6)
TOTAL ADJUSTED HOUSE LOAD (Add Box 4 + Box 5 + Box 6)	<input style="width: 40px;" type="text"/>	(Box 7)
Minimum Service Ampacity (Box 7 divided by 240)	<input style="width: 40px;" type="text"/>	(Box "A")
Enter Your Existing Electrical Service Size (amps)	<input style="width: 40px;" type="text"/>	(Box "B")

NOTE: For One-Family Dwellings, the service disconnecting means shall have a rating of not less than 100 amps, 3-wire.

Service panel upgrade is required!