



CITY OF SONORA  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 94 N. WASHINGTON STREET  
 SONORA, CA 95370  
 (209) 532-3508 - Phone

## RESIDENTIAL ELECTRICAL LOAD WORKSHEET

OWNER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

### LIGHTING LOAD

Art. 220 - 3(a) Total square footage of habitable living area : \_\_\_\_\_ @ 3 watts per sqft = \_\_\_\_\_ watts

Art. 220 - 16(a) Two small appliance circuits @ 1500 watts each : 2 @ 1500 watts each = 3000 watts

Art. 220 - 16(a) Additional small appliance circuits each : \_\_\_\_\_ @ 1500 watts each = \_\_\_\_\_ watts

Art. 220 - 16(b) Laundry circuit (washing machine) @ 1500 watts ea. \_\_\_\_\_ @ 1500 watts = \_\_\_\_\_ watts

Lighting Load Subtotal = \_\_\_\_\_ watts

Table 220 - 11

First 3000 watts of lighting load subtotal: \_\_\_\_\_ @ 100% = 3000 watts

Remainder from 3001 to 120,000 watts: \_\_\_\_\_ @ 35% = \_\_\_\_\_ watts

Remainder over 120,000 watts: \_\_\_\_\_ @ 25% = \_\_\_\_\_ watts

LIGHTING LOAD TOTAL = \_\_\_\_\_ watts

### APPLIANCE LOAD

Art. 220 - 17 Disposal: \_\_\_\_\_ X 600 watts = \_\_\_\_\_ watts

Microwave: \_\_\_\_\_ X 1500 watts = \_\_\_\_\_ watts

Compactor: \_\_\_\_\_ X 1200 watts = \_\_\_\_\_ watts

Dishwasher: \_\_\_\_\_ X 1200 watts = \_\_\_\_\_ watts

Food Center: \_\_\_\_\_ X 600 watts = \_\_\_\_\_ watts

\_\_\_\_\_: \_\_\_\_\_ X \_\_\_\_\_ watts = \_\_\_\_\_ watts

\_\_\_\_\_: \_\_\_\_\_ X \_\_\_\_\_ watts = \_\_\_\_\_ watts

Appliance Subtotal = \_\_\_\_\_ watts

### APPLIANCE TOTAL

Art. 220 - 17 Appliance subtotal: \_\_\_\_\_ watts X \_\_\_\_\_ = \_\_\_\_\_ watts

[ Less than 4 units @ 100%; 4 or more units @ 75% ]

OWNER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

**ELECTRIC CLOTHES DRYER**

Art. 220 - 18 5000 watts OR nameplate rating: [ Whichever is larger ] DRYER TOTAL = \_\_\_\_\_ watts

**WATER HEATER** (if electric)

Art. 220 - 3(b) @ Nameplate rating : WATER HEATER LOAD = \_\_\_\_\_ watts

**HOUSEHOLD COOKING EQUIPMENT**

Table 220 - 19 Cooking Units - Includes ranges, wall mounted ovens, countertop units, and other household cooking units.

Number of Units -

ONE unit use	8,000 watts:
TWO units use	11,000 watts:
THREE units use	14,000 watts:
FOUR units use	17,000 watts:
FIVE units use	20,000 watts:

COOKING TOTAL = \_\_\_\_\_ watts

**SPACE HEATING / AIR CONDITIONING**

Art. 220 - 4(a) Air conditioner nameplate rating [ @ 125% ] : \_\_\_\_\_ watts X 125% = \_\_\_\_\_ watts

Art. 220 - 21 OR [ Whichever is larger ]

Art. 220 - 15 Electric heat nameplate rating [ @ 100% ] :

**HEAT PUMP**

Art. 220 - 4(a) Largest condensing unit nameplate [ @ 125% ] : \_\_\_\_\_ watts X 125% = \_\_\_\_\_ watts

Art. 440 - 33 AND

Art. 220 - 15 Supplementary heat (resistance) [ @ 100% ] : \_\_\_\_\_ watts X 100% = \_\_\_\_\_ watts

**ADDITIONAL HVAC EQUIPMENT**

Art. 440 - 33 Condensing units or A/C's : > \_\_\_\_\_ watts X 100% = \_\_\_\_\_ watts

SPACE HEATING/AIR CONDITIONING TOTAL = \_\_\_\_\_ watts

OWNER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

**OPTIONAL EQUIPMENT**

Art. 220 - 3(b) SWIMMING POOL and/or SPA: >

Art. 430 - 24 Largest motor nameplate : watts X 125% = \_\_\_\_\_ watts

Remaining motor(s) nameplate(s) : watts X 100% = \_\_\_\_\_ watts

Lights and other misc. equipment : watts X 100% = \_\_\_\_\_ watts

**POOL/SPA TOTAL = \_\_\_\_\_ watts**

Art. 220 - 3(b) WELDERS, KILNS, ETC.

1. Name or description of equipment :

@ rated nameplate : watts X 100% = \_\_\_\_\_ watts

2. Name or description of equipment :

@ rated nameplate : watts X 100% = \_\_\_\_\_ watts

3. Name or description of equipment :

@ rated nameplate : watts X 100% = \_\_\_\_\_ watts

**MISCELLANEOUS EQUIPMENT TOTAL = \_\_\_\_\_ watts**

**TOTAL DEMAND ON SYSTEM**

Art. 220 - 10 Sum of all totals : LIGHTING LOAD TOTAL = \_\_\_\_\_ watts

APPLIANCE TOTAL = \_\_\_\_\_ watts

DRYER TOTAL = \_\_\_\_\_ watts

WATER HEATER TOTAL = \_\_\_\_\_ watts

COOKING TOTAL = \_\_\_\_\_ watts

SPACE HEATING/AIR CONDITIONING TOTAL = \_\_\_\_\_ watts

POOL/SPA TOTAL = \_\_\_\_\_ watts

MISCELLANEOUS EQUIPMENT TOTAL = \_\_\_\_\_ watts

**TOTAL LOAD FOR DWELLING = \_\_\_\_\_ watts**

OWNER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

**MAIN SERVICE SIZING**

Art. 220 - 2 TOTAL LOAD \_\_\_\_\_ DIVIDED BY: \_\_\_\_\_ volts = \_\_\_\_\_ Amps  
 [ NOTE: For 120/240 Volt systems use 240 volts; for 120/208 Volt systems use 208 volts ]

Art. 220 - 10 MINIMUM SERVICE SIZE \_\_\_\_\_ AMPS

Table 310 - 16 SERVICE ENTRANCE CONDUCTORS \_\_\_\_\_ AWG, Cu, \_\_\_\_\_ AWG, Al.

Table 250 - 94 GROUNDING ELECTRODE CONDUCTOR \_\_\_\_\_ AWG Copper

**OPTIONAL CALCULATION FOR DWELLING UNIT**

Table 220 - 30 100% of the nameplate rating(s) of the air conditioning \_\_\_\_\_ watts  
 100% of the first 10 kVA of all other load \_\_\_\_\_ watts  
 40% of the remainder of all other load \_\_\_\_\_ watts  
 TOTAL OPTIONAL LOAD \_\_\_\_\_ watts

Art. 220 - 2 TOTAL OPTIONAL LOAD: \_\_\_\_\_ DIVIDED BY: \_\_\_\_\_ volts = \_\_\_\_\_ Amps  
 [ NOTE: For 120/240 Volt systems use 240 volts; for 120/208 Volt systems use 208 volts ]

Art. 220 - 10 MINIMUM SERVICE SIZE \_\_\_\_\_ AMPS

Table 310 - 16 SERVICE ENTRANCE CONDUCTORS \_\_\_\_\_ AWG, Cu, \_\_\_\_\_ AWG, Al.

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