

*Residential Electrical Load Calculation Worksheet*

<u>Quantity</u>	<u>Load Item</u>	<u>Minimum Rate</u>	<u>Column 1</u>	<u>Column 2</u>
	Dwelling Squares Footage	3w/sq.ft		
	Small Appliance (2 min)	1500 V-A/ea.		
	Electric cook top(s)	5100		
	Electric ovens(s)	8000		
	Dishwasher	1200		
	Garbage Disposal	800		
	Laundry Circuit	1500		
	Forced air unit	550		
	Air conditioner			
	Pool equipment			
	Individual space heating			
	Microwave	1600		
	Electric clothes dryer	5000		
TOTALS				

First 8,000* V-A at		8,000*
Column 1 (minus 8,000*) x 40%		
Column 2 at 100%		
Calculated Volt-Ampers Divided watts by 240		
Calculated Ampers		
Solar Breaker Ampers		
Total Ampers on Bus		
Bus Bar Rating in Ampers		
Panel upgrade	Yes	No

\*Use the first 8,000 Volt-Ampers for additional loads to existing dwellings. Use 10,000 Volt-Ampers in

*If the total demand is **less than** the rating of the existing electrical service or subpanel including the 120% rule, then a panel upgrade is not required. If the total demand is **greater than**, then a Photovoltaic permit will **only** be issued if a panel upgrade is included in the work. New/upgraded panels may require the service lateral to be placed underground.*



calculations for new dwelling units. NEC Article 220.83

Project		Building Permit	
Address:	_____	Number:	_____
Applicant			
Contact Name:	_____	Phone Number:	_____

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*Submittal Requirements for Photovoltaic Array Systems*

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To assure the safety and durability of new and expanded electrical systems the City of Antioch requires that electrical plans for these systems include load calculations demonstrating that the panel(s) installed in the building are sufficient to support the planned loads on the system.

When submitting an application/plans for a photovoltaic system please provide the following at the time of application.

- 1) Building Permit Application
- 2) Plot Plan/Title Sheet
- 3) Constructions Plans
  - a. 11x17
  - b. 3 copies
- 4) Load Calculations
- 5) Picture(s) of electrical panel
  - a. Main electrical panel
  - b. Sub-panel

