



# RESIDENTIAL SOLAR WATER HEATING

## SYSTEM SIZING VERIFICATION (FORM 1)

**INSTRUCTIONS:** Participating Contractor to complete all non-shaded areas. All shaded areas are for Official Use only. For questions, call (808) 537-5577.

Customer Name: \_\_\_\_\_

Work Order #: \_\_\_\_\_

Customer Phone: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Centralized Multi System: ☐ Yes ☐ No

Contact Phone: \_\_\_\_\_

Collector Access: ☐ One Story ☐ Multi Story

Tank Access: ☐ Secured ☐ Unsecured

Subcontractor(s) Used: ☐ Yes ☐ No If YES, Name & License #: \_\_\_\_\_

Location of Installation: ☐ O'ahu ☐ Molokai ☐ Lāna'i ☐ Maui ☐ Hawai'i

### SYSTEM DATA – CHART 1

			Accepted	Denied
1	Installation Reason	<input type="checkbox"/> Burnout <input type="checkbox"/> Retrofit		
2	Previous Water Heater Type	<input type="checkbox"/> Electric <input type="checkbox"/> Heat Pump <input type="checkbox"/> Solar <input type="checkbox"/> None		
3	System Type	<input type="checkbox"/> Active <input type="checkbox"/> Passive		
4	Neighborhood / Community			
5	Sunshine Zone	<input type="checkbox"/> 350 <input type="checkbox"/> 400 <input type="checkbox"/> 450 <input type="checkbox"/> 480 <input type="checkbox"/> 500 <input type="checkbox"/> 550		
6	Collector Manufacturer			
7	Collector Model No.			
8	Collector Size	<input type="checkbox"/> 3' x 7' <input type="checkbox"/> 3' x 8' <input type="checkbox"/> 4' x 6' <input type="checkbox"/> 4' x 8' <input type="checkbox"/> 4' x 10'		
9	Absorber Coating	<input type="checkbox"/> Chrome <input type="checkbox"/> Paint		
10	Collector Orientation	_____ degrees (true)		
11	Collector Orientation Factor	_____ % derating (Chart 1: Collector Orientation Factor Compass)		
12	Collector Mounting Method	<input type="checkbox"/> Flush <input type="checkbox"/> Side tilt <input type="checkbox"/> End tilt		
13	Collector Tilt	_____ degrees		
14	Collector Tilt Factor	_____ % derating (Table 3: Tilt Factor Table)		
15	Back-Up Heating Type	<input type="checkbox"/> Electric <input type="checkbox"/> Gas <input type="checkbox"/> Heat Pump		
16	Pump Type	<input type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> None		

### SIZING: HOT WATER STORAGE

		Gal. / Day	Line
•	Hot Water Use: Total number of occupants _____ x 20 gal./day	_____	1
•	Required Storage	_____	2
•	Actual System Storage Selected (from Table 2, SWH Handbook)		
	Tank #1	_____	3
	Tank #2	_____	4
	Tank #3	_____	5
•	Total Actual System Storage: (add Lines 3, 4 and 5)	_____	6

### SIZING: SOLAR COLLECTOR(S)

		BTU / Day Output	
•	BTU/Day Output for Solar Collector(s) (from Table 6, SWH Handbook)	Model 1: _____ Model 2: _____	7
•	Number of Collectors per Model	Model 1: _____ Model 2: _____	8
•	Sub-Total: Collector BTU/Day Output (multiply Lines 7 and 8)	Model 1: _____ Model 2: _____	9
•	Total Collector BTU/Day Output (add Model 1 and Model 2 from Line 9)	_____	10
•	Derating BTU Output/Day: Orientation _____°; Factor _____% (from Chart 1) x Line 10	_____	11
	Tilt _____°; Factor _____% (from Table 3: Tilt Factors) x Line	_____	12
•	Adjusted Collector BTU/Day Output (Subtract Lines 11 and 12 from Line 10)	_____	13

### SOLAR FRACTION

•	Percent Solar Fraction (Divide Line 13 by Line 6)	_____ %	14
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Inspector: _____	Customer Present: _____	Date: _____	Form 1: <input type="checkbox"/> Accepted <input type="checkbox"/> Denied
Comments: _____			