Hawai'i Energy

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	☐Burnout ☐Retrofit		
2	Previous Water Heater Type	☐Electric ☐Heat Pump ☐Solar ☐None		
3	System Type	☐Active ☐Passive		
4	Neighborhood / Community			
5	Sunshine Zone	☐350 ☐400 ☐450 ☐480 ☐500 ☐550		
6	Collector Manufacturer			
7	Collector Model No.			
8	Collector Size	☐3' x 7' ☐3' x 8' ☐4' x 6' ☐ 4' x 8' ☐4' x 10'		
9	Absorber Coating	☐Chrome ☐Paint		
10	Collector Orientation	_____degrees (true)		
11	Collector Orientation Factor	_____% derating (Chart 1: Collector Orientation Factor Compass)		
12	Collector Mounting Method	☐Flush ☐Side tilt ☐End tilt		
13	Collector Tilt	_____degrees		
14	Collector Tilt Factor	_____% derating (Table 3: Tilt Factor Table)		
15	Back-Up Heating Type	☐Electric ☐Gas ☐Heat Pump		
16	Pump Type	☐AC ☐DC ☐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) — **Gallons** — **Daily BTU Requirement**
  - 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 10* _____ 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

Inspector:	**Customer Present:**	**Date:**	**Form 1:** ☐Accepted ☐Denied
Comments:			