

Sizing Worksheet

3	(from previous page)	Total DC watt-hours/day	
4	Total corrected DC to AC watt-hours/day from Line 2 +		
5	Total household DC watt-hours/day =		
6	System nominal voltage (usually 12, 24 or 48) ÷		
7	Total DC amp-hours/day =		
8	Battery losses, wiring losses, safety factor x	1.2	
9	Total daily amp-hour requirement =		
10	Estimated insolation (hours of "noon sun" per day; see p. 476 or call) ÷		
11	Total PV array current in amps =		
12	Select a photovoltaic module for your system		
13	Module rated power amps ÷		
14	Number of modules required in parallel =		
15	System nominal voltage (from line 6 above)		
16	Module nominal voltage (usually 12) ÷		
17	Number of modules required in series =		
18	Number of modules required in parallel (from Line 14 above) x		
19	Total modules required =		
Battery Sizing			
20	Total daily amp-hour requirement (from line 9)		
21	Reserve time in days x		
22	Fraction of useable battery capacity (usually .5 to .8) ÷		
23	Minimum battery capacity in amp-hours =		
24	Select a battery for your system, enter amp-hour capacity ÷		
25	Number of batteries in parallel =		
26	System nominal voltage (from line 6)		
27	Voltage of your chosen battery (6 or 12 usually) ÷		
28	Number of batteries in series =		
29	Number of batteries in parallel (from line 25 above) x		
30	Total number of batteries required		