

SOLAR PATRIOT™ COLLECTOR PERFORMANCE RATING

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Solar Radiation Condition	k Btu / Month Production / Collector											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Clear Day 2k Btu / ft.sq	620	560	713	620	713	690	713	713	690	620	600	527
Mildy Cloudy Day 1.5k Btu / ft.sq	434	392	527	434	527	510	527	527	510	434	420	314
Cloudy Day 1,000 Btu / ft.sq	248	224	341	248	341	330	341	341	330	248	240	155

Cost to heat potable water:

NB: usage estimate: 40 Gals / day @ 120° F
 8.33 lbs / Gal x 40 Gals=333 lbs
 Δ 60° F = 333 lbs x 60 = 19,990 ~ 20,000 Btu / day
 20,000 / 3.41 = 5,865 watts = 5.85 kw / day
 5.86 x \$.09 = \$.52 / day x 365 = **\$193 / year** / SP-20 collector

Offset \$ by SDHW installations:

Annual savings 1 collector = ~\$200
Annual savings 2 collectors = ~\$400
 for electric water heating. Much higher savings with gas fires water heating. Does not factor Federal Solar Tax Credits or Consumer Energy price increases over next 20 years service life of solar system.