

# SOLAR INSOLATION - 13

## Solar Insolation

This chart shows solar insolation in kilowatt-hours per square meter per day in many U.S. locations. For simplicity, we call this figure "sun-hours per day." To find average sun-hours per day in your area (line 3 on page 12), check local weather data, look at the map on the previous page or find a city in the table below that has similar weather to your location. If you want year-round autonomy, use the lowest of the two figures. If you want only 100% autonomy in summer, use the higher figure. If you want a utility intertie system, and you have net metering available in your state, use the average figures.

State	City	High	Low	Avg
AK	Fairbanks	5.87	2.12	3.99
AK	Matanuska	5.24	1.74	3.55
AL	Montgomery	4.69	3.37	4.23
AR	Bethel	6.29	2.37	3.81
AR	Little Rock	5.29	3.88	4.69
AZ	Tucson	7.42	6.01	6.57
AZ	Page	7.30	5.65	6.36
AZ	Phoenix	7.13	5.78	6.58
CA	Santa Maria	6.52	5.42	5.94
CA	Riverside	6.35	5.35	5.87
CA	Davis	6.09	3.31	5.10
CA	Fresno	6.19	3.42	5.38
CA	Los Angeles	6.14	5.03	5.62
CA	Soda Springs	6.47	4.40	5.60
CA	La Jolla	5.24	4.29	4.77
CA	Inyokern	8.70	6.87	7.66
CO	Granby	7.47	5.15	5.69
CO	Grand Lake	5.86	3.56	5.08
CO	Grand Junction	6.34	5.23	5.85
CO	Boulder	5.72	4.44	4.87
DC	Washington	4.69	3.37	4.23
FL	Aplachicola	5.98	4.92	5.49
FL	Belle Is.	5.31	4.58	4.99
FL	Miami	6.26	5.05	5.62
FL	Gainesville	5.81	4.71	5.27
FL	Tampa	6.16	5.26	5.67
GA	Atlanta	5.16	4.09	4.74
GA	Griffin	5.41	4.26	4.99
HI	Honolulu	6.71	5.59	6.02
IA	Ames	4.80	3.73	4.40
ID	Boise	5.83	3.33	4.92
ID	Twin Falls	5.42	3.42	4.70
IL	Chicago	4.08	1.47	3.14
IN	Indianapolis	5.02	2.55	4.21
KS	Manhattan	5.08	3.62	4.57
KS	Dodge City	6.50	4.20	5.60
KY	Lexington	5.97	3.60	4.94
LA	Lake Charles	5.73	4.29	4.93
LA	New Orleans	5.71	3.63	4.92
LA	Shreveport	4.99	3.87	4.63
MA	E. Wareham	4.48	3.06	3.99
MA	Boston	4.27	2.99	3.84
MA	Blue Hill	4.38	3.33	4.05
MA	Natick	4.62	3.09	4.10
MA	Lynn	4.60	2.33	3.79
MD	Silver Hill	4.71	3.84	4.47
ME	Caribou	5.62	2.57	4.19
ME	Portland	5.23	3.56	4.51
MI	Sault Ste. Marie	4.83	2.33	4.20
MI	E. Lansing	4.71	2.70	4.00
MN	St. Cloud	5.43	3.53	4.53
MO	Columbia	5.50	3.97	4.73
MO	St. Louis	4.87	3.24	4.38
MS	Meridian	4.86	3.64	4.43
MT	Glasgow	5.97	4.09	5.15
MT	Great Falls	5.70	3.66	4.93
MT	Summit	5.17	2.36	3.99
NM	Albuquerque	7.16	6.21	6.77
NB	Lincoln	5.40	4.38	4.79
NB	N. Omaha	5.28	4.26	4.90
NC	Cape Hatteras	5.81	4.69	5.31
NC	Greensboro	5.05	4.00	4.71
ND	Bismark	5.48	3.97	5.01
NJ	Sea Brook	4.76	3.20	4.21
NV	Las Vegas	7.13	5.84	6.41
NV	Ely	6.48	5.49	5.98
NY	Binghamton	3.93	1.62	3.16
NY	Ithaca	4.57	2.29	3.79
NY	Schenectady	3.92	2.53	3.55
NY	Rochester	4.22	1.58	3.31
NY	New York City	4.97	3.03	4.08
OH	Columbus	5.26	2.66	4.15
OH	Cleveland	4.79	2.69	3.94
OK	Stillwater	5.52	4.22	4.99
OK	Oklahoma City	6.26	4.98	5.59
OR	Astoria	4.76	1.99	3.72
OR	Corvallis	5.71	1.90	4.03
OR	Medford	5.84	2.02	4.51
PA	Pittsburg	4.19	1.45	3.28
PA	State College	4.44	2.79	3.91
RI	Newport	4.69	3.58	4.23
SC	Charleston	5.72	4.23	5.06
SD	Rapid City	5.91	4.56	5.23
TN	Nashville	5.20	3.14	4.45
TN	Oak Ridge	5.06	3.22	4.37
TX	San Antonio	5.88	4.65	5.30
TX	Brownsville	5.49	4.42	4.92
TX	El Paso	7.42	5.87	6.72
TX	Midland	6.33	5.23	5.83
TX	Fort Worth	6.00	4.80	5.43
UT	Salt Lake City	6.09	3.78	5.26
UT	Flaming Gorge	6.63	5.48	5.83
VA	Richmond	4.50	3.37	4.13
WA	Seattle	4.83	1.60	3.57
WA	Richland	6.13	2.01	4.44
WA	Pullman	6.07	2.90	4.73
WA	Spokane	5.53	1.16	4.48
WA	Prosser	6.21	3.06	5.03
WI	Madison	4.85	3.28	4.29
WV	Charleston	4.12	2.47	3.65
WY	Lander	6.81	5.50	6.06