



## Solar Electric (PV) Output at Optimal Array Tilt Angle

Output is in kWh/year per installed kW of panels

Sorted by Latitude				Sorted by Output			
City	LAT	Tilt	Output	City	Lat	Tilt	OUTPUT
Stony Rapids SK	59°N	51°	1345	Ghanzi Botswana	22°S	27°	2050
Prince Albert SK	53°N	52°	1691	Pheonix AZ	33°N	30°	1954
Edmonton AB	53°N	51°	1632	Cairo Egypt	30°N	25°	1803
Saskatoon SK	52°N	50°	1761	Saskatoon SK	52°N	50°	1761
Amsterdam Holland	52°N	37°	1163	Estivan SK	49°N	47°	1755
Berlin Germany	52°N	40°	1070	Regina SK	50°N	48°	1753
Warsaw Poland	52°N	35°	1045	Los Angeles CA	34°N	28°	1746
Cambridge UK	52°N	37°	1004	Honolulu HI	21°N	17°	1733
Calgary AB	51°N	49°	1660	Palea Equ. Guinea	1°S	5°	1730
Regina SK	50°N	48°	1753	Moose Jaw SK	50°N	48°	1705
Moose Jaw SK	50°N	48°	1705	Prince Albert SK	53°N	52°	1691
Winnipeg MB	50°N	45°	1558	Dalas TX	33°N	28°	1691
Gravelbourg SK	50°N	44°	1512	Calgary AB	51°N	49°	1660
Maple Creek SK	50°N	41°	1500	Madrid Spain	40°N	32°	1655
Estivan SK	49°N	47°	1755	Edmonton AB	53°N	51°	1632
Val Marie SK	49°N	43°	1482	Miami FL	26°N	22°	1598
Vancouver BC	49°N	32°	1242	Winnipeg MB	50°N	45°	1558
Ottawa ON	45°N	38°	1392	Gravelbourg SK	50°N	44°	1512
Halifax NS	45°N	37°	1331	Maple Creek SK	50°N	41°	1500
Toronto ON	44°N	34°	1376	Val Marie SK	49°N	43°	1482
Albany NY	43°N	35°	1434	Albany NY	43°N	35°	1434
St Clair MI	43°N	32°	1353	Ottawa ON	45°N	38°	1392
Madrid Spain	40°N	32°	1655	Toronto ON	44°N	34°	1376
Los Angeles CA	34°N	28°	1746	St Clair MI	43°N	32°	1353
Pheonix AZ	33°N	30°	1954	Stony Rapids SK	59°N	51°	1345
Dalas TX	33°N	28°	1691	Halifax NS	45°N	37°	1331
Cairo Egypt	30°N	25°	1803	Vancouver BC	49°N	32°	1242
Miami FL	26°N	22°	1598	Amsterdam Holland	52°N	37°	1163
Honolulu HI	21°N	17°	1733	Berlin Germany	52°N	40°	1070
Palea Equ. Guinea	1°S	5°	1730	Warsaw Poland	52°N	35°	1045
Ghanzi Botswana	22°S	27°	2050	Cambridge UK	52°N	37°	1004

NOTES: Output values are calculated using RETScreen modeled with 2% misc panel losses & 95% efficiency inverters.

Tilt and Latitude angles are rounded to nearest whole degree.

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