

Date of Assessment: 4/23/2007
 Client: Joe Smith
 Client Phone #: 555-123-4567
 Client E-mail: solardude4763@hotmail.com
 Assessment Address: Smith Residence, Hegins, PA
 Assessment ZIP CODE: 17938

Site Description: SITE 3. This site is on the northern border of the property about 100' east of the utility pole. See photo below.



Potential System: 12 kW (DC) fixed ground-based solar array.

Estimated Installed Cost:	\$84,000
Rebates:	\$0
Tax Credits:	\$30,000
Cost to Client:	\$54,000
Current Electric Rate:	\$0.090 per kW-hr
Estimated Annual Electric Rate Hike:	10 %
Est. Annual Solar Electricity Generated:	11,966 kW-hr (AC)
Avg CO ₂ emissions per kW-hr grid electricity produced in the US:	1.34 lb

Year	Electric Rate (per kW-hr)	Cumulative Savings	Cumulative CO ₂ Savings (lbs)
1	\$0.090	\$1,077	16,034
2	\$0.099	\$2,262	32,069
3	\$0.109	\$3,565	48,103
4	\$0.120	\$4,998	64,138
5	\$0.132	\$6,575	80,172
6	\$0.145	\$8,309	96,207
7	\$0.159	\$10,217	112,241
8	\$0.175	\$12,316	128,276
9	\$0.193	\$14,624	144,310
10	\$0.212	\$17,164	160,344
11	\$0.233	\$19,957	176,379
12	\$0.257	\$23,030	192,413
13	\$0.282	\$26,409	208,448
14	\$0.311	\$30,127	224,482
15	\$0.342	\$34,217	240,517
16	\$0.376	\$38,716	256,551
17	\$0.414	\$43,664	272,585
18	\$0.455	\$49,108	288,620
19	\$0.500	\$55,095	304,654
20	\$0.550	\$61,682	320,689
21	\$0.605	\$68,927	336,723
22	\$0.666	\$76,896	352,758
23	\$0.733	\$85,663	368,792
24	\$0.806	\$95,306	384,827
25	\$0.886	\$105,914	400,861





Marc Edward LLC Solar Site Analysis Report

Report Title Smith Residence near Hegin PA
Image File SITE 3.JPG
Report Date Tuesday, April 17, 2007
Declination -11d 33m
Latitude/Longitude 40.688 / -76.539
Analysis Site HEGINS, PA, Zipcode: 17938
Weather Station HARRISBURG, PA, Elevation: 106 m
Station/Site Distance 66.49 miles

Array Type Fixed
Tilt Angle 40.69 degrees
Cost of Electricity 9 cents/kWhr
DC Rate 12.00 kW
Derate Factor 0.75
Azimuth (180 = south) 180.00 degrees

Month	Unshaded % of Ideal Site Azimuth=180.0 Tilt=40.7	Ideal Solar Rad w/o Shading Azimuth=180 Tilt=40.7 KWH/m ² /day	Actual Solar Rad w/ Shading Azimuth=180.0 Tilt=40.7 KWH/m ² /day	Ideal AC Power (KWH) w/o shading Azimuth=180.0 Tilt=40.7	Actual AC Power (KWH) w/ shading Azimuth=180.0 Tilt=40.7	Actual Solar Savings
January	66.90%	3.45	2.32	981.0	675.61	\$60.81
February	67.70%	4.12	2.67	1059.0	703.56	\$63.32
March	79.80%	4.70	3.75	1296.0	1054.76	\$94.93
April	97.40%	5.27	5.04	1373.0	1333.6	\$120.02
May	96.60%	5.27	4.95	1347.0	1291.8	\$116.26
June	94.90%	5.59	5.14	1344.0	1266.05	\$113.94
July	96.40%	5.57	5.16	1370.0	1294.2	\$116.48
August	97.60%	5.31	5.05	1317.0	1274.2	\$114.68
September	93.40%	4.88	4.53	1192.0	1134.15	\$102.07
October	69.00%	4.41	3.07	1160.0	826.21	\$74.36
November	65.70%	3.06	2.11	812.0	582.86	\$52.46
December	65.90%	2.59	1.79	736.0	528.77	\$47.59
Totals	82.61%	--	--	13987.0	11965.79	\$1076.92
Unweighted Yearly Avg		Effect: 100% Sun Hrs: 4.52	Effect: 84.06% Sun Hrs: 3.80			

NOTES: This site is on the northern border of the property about 100' east of the utility pole.
 Above data is based on a 12 kW (DC) fixed array tilted to latitude (40.6 degrees).
 Estimated installed system cost: \$84,000.

