



Site Report

Report Name	John Smith
Report Date	6/16/2016
Declination	-2d 51m
Location	Linden, TN 37096
Lat/Long	35.598 / -87.852
Weather Station	Jackson-McKellar Sipes Rgnl AP, TN, Elevation: 433 Feet, (35.600 / -88.917)
Site Distance	60 Miles
Report Type	PV
Array Type	Fixed Angle
Tilt Angle	35.60 deg
Ideal Tilt Angle	35.60 deg
Azimuth	180.00 deg
Ideal Azimuth	180.00 deg
Electric Cost	0.0829 (\$/kWh)
Module Make	Hanwha Q CELLS
Module Model	Q.PRO BFR-G4.1 265
Module Type	Standard
Module Count	15
DC Rate (per module)	265.0 Watts
TSRF	86.1 %
STC System Size	3.98 kW
DC System Size	3.42 kW
AC System Size	2.96 kW
Inverter Make	Enphase Energy
Inverter Model	M210-84-240-SXX(-NA) (Microinverter)
Inverter Count	15
Inverter Efficiency	95.5 %
System Loss Percentage	9.6 %
AC Energy Efficiency	91.1 %
Layout Configuration	Four Corner
Layout Point Count	4

Notes: This is a ecological report created in the SolarPathfinder Assistant 5

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System Picture Layout

Layout Type

Four Corner

Layout Point Count

4





Summary Report

Solar Obstruction Data (Part 1 of 2)

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=35.6	Ideal Unshaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Actual Unshaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Actual Shaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Deciduous Area(s) Solar Radiation Transparency = 50% kWh/m ² /day	Unshaded % of Actual Site Azimuth=180.0 Tilt=35.6	Total Solar Resource Fraction (TSRF) (Actual vs Ideal)
January	51.4 %	2.98	2.98	1.47	0.45	49.5 %	49.5 %
February	73.4 %	3.34	3.34	2.41	0.29	72.2 %	72.2 %
March	95.1 %	5.32	5.32	5.05	0.00	95.0 %	95.0 %
April	97.6 %	5.00	5.00	4.90	0.00	97.9 %	97.9 %
May	98.4 %	5.90	5.90	5.83	0.00	98.9 %	98.9 %
June	98.1 %	5.41	5.41	5.33	0.00	98.6 %	98.6 %
July	98.2 %	5.93	5.93	5.85	0.00	98.7 %	98.7 %
August	97.7 %	5.54	5.54	5.44	0.00	98.1 %	98.1 %
September	95.6 %	5.81	5.81	5.55	0.00	95.5 %	95.5 %
October	80.1 %	4.95	4.95	3.91	0.28	79.0 %	79.0 %
November	55.5 %	3.57	3.57	1.91	0.55	53.5 %	53.5 %
December	35.9 %	2.63	2.63	0.89	0.31	34.1 %	34.1 %
Totals	81.4 % Unweighted Yearly Avg	56.39 Effect: 100.0 % Sun Hrs: 4.70	56.39 Effect: 100.0 % Sun Hrs: 4.70	48.57 Effect: 86.1 % Sun Hrs: 4.05	1.89 Effect: 3.4 % Sun Hrs: 0.16	86.1 % Unweighted Yearly Avg	86.1 % Unweighted Yearly Avg

Solar Obstruction Data (Part 2 of 2)

Month	Ideal Site Efficiency Azimuth=180. 0 Tilt=35.6	AC Energy Efficiency (Actual vs Ideal)	Actual Shaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	Actual Unshaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	Ideal Unshaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	PV Solar Cost Savings 0.0829 (\$/kWh)
January	49.5 %	67.1 %	210.69	314.16	314.16	\$17.47
February	72.2 %	82.2 %	245.12	298.12	298.12	\$20.32
March	95.0 %	97.5 %	513.90	527.04	527.04	\$42.60
April	97.9 %	99.1 %	469.24	473.43	473.43	\$38.90
May	98.9 %	99.8 %	568.51	569.47	569.47	\$47.13
June	98.6 %	99.8 %	491.67	492.68	492.68	\$40.76
July	98.7 %	99.8 %	557.26	558.31	558.31	\$46.20
August	98.1 %	99.3 %	517.98	521.88	521.88	\$42.94
September	95.5 %	98.0 %	514.31	524.78	524.78	\$42.64
October	79.0 %	86.3 %	416.76	483.10	483.10	\$34.55
November	53.5 %	69.5 %	236.91	341.04	341.04	\$19.64
December	34.1 %	56.6 %	149.35	263.66	263.66	\$12.38
Totals	86.1 % Unweighted Yearly Avg	91.1 %	4,891.69	5,367.69	5,367.69	\$405.52

Deciduous Calculation Data

Transparency: 50 %

Months with no leaves: October through April

Notes: This is a ecological report created in the SolarPathfinder Assistant 5

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Solar Site Analysis Report

Layout Point 1

Image File: SampleImage1.jpg

Solar Obstruction Data (Part 1 of 2)

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=35.6	Ideal Unshaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Actual Unshaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Actual Shaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Deciduous Area(s) Solar Radiation Transparency = 50% kWh/m ² /day	Unshaded % of Actual Site Azimuth=180.0 Tilt=35.6	Total Solar Resource Fraction (TSRF) (Actual vs Ideal)
January	53.6 %	2.98	2.98	1.53	0.45	51.4 %	51.4 %
February	77.7 %	3.34	3.34	2.54	0.25	76.0 %	76.0 %
March	94.5 %	5.32	5.32	5.01	0.00	94.3 %	94.3 %
April	98.5 %	5.00	5.00	4.94	0.00	98.8 %	98.8 %
May	97.7 %	5.90	5.90	5.79	0.00	98.2 %	98.2 %
June	97.4 %	5.41	5.41	5.30	0.00	98.0 %	98.0 %
July	97.4 %	5.93	5.93	5.82	0.00	98.1 %	98.1 %
August	99.0 %	5.54	5.54	5.50	0.00	99.2 %	99.2 %
September	93.6 %	5.81	5.81	5.40	0.00	93.0 %	93.0 %
October	85.6 %	4.95	4.95	4.15	0.17	83.7 %	83.7 %
November	54.2 %	3.57	3.57	1.84	0.74	51.5 %	51.5 %
December	42.2 %	2.63	2.63	1.05	0.23	39.9 %	39.9 %
Totals	82.6 % Unweighted Yearly Avg	56.39 Effect: 100% Sun Hrs: 4.70	56.39 Effect: 100.0 % Sun Hrs: 4.70	48.87 Effect: 86.7 % Sun Hrs: 4.07	1.84 Effect: 3.3 % Sun Hrs: 0.15	86.7 % Unweighted Yearly Avg	86.7 % Unweighted Yearly Avg

Solar Obstruction Data (Part 2 of 2)

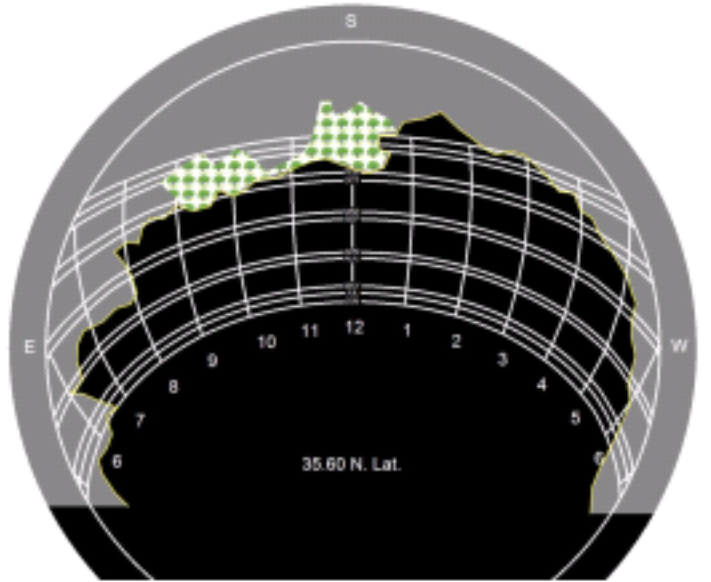
Month	Ideal Site Efficiency Azimuth=180. 0 Tilt=35.6	AC Energy Efficiency (Actual vs Ideal)	Actual Shaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	Actual Unshaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	Ideal Unshaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	PV Solar Cost Savings 0.0829 (\$/kWh)
January	51.4 %	68.2 %	214.41	314.16	314.16	\$17.77
February	76.0 %	84.6 %	252.11	298.12	298.12	\$20.90
March	94.3 %	96.9 %	510.70	527.04	527.04	\$42.34
April	98.8 %	99.6 %	471.36	473.43	473.43	\$39.08
May	98.2 %	99.5 %	566.82	569.47	569.47	\$46.99
June	98.0 %	99.5 %	490.39	492.68	492.68	\$40.65
July	98.1 %	99.7 %	556.47	558.31	558.31	\$46.13
August	99.2 %	99.8 %	521.04	521.88	521.88	\$43.19
September	93.0 %	96.3 %	505.48	524.78	524.78	\$41.90
October	83.7 %	89.2 %	430.79	483.10	483.10	\$35.71
November	51.5 %	67.9 %	231.41	341.04	341.04	\$19.18
December	39.9 %	60.7 %	160.07	263.66	263.66	\$13.27
Totals	86.7 % Unweighted Yearly Avg	91.5 %	4,911.06	5,367.69	5,367.69	\$407.13



Solar Site Analysis Report

Layout Point 1

Image File: SampleImage1.jpg



Notes: [None]



Solar Site Analysis Report

Layout Point 2

Image File: SampleImage2.jpg

Solar Obstruction Data (Part 1 of 2)

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=35.6	Ideal Unshaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Actual Unshaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Actual Shaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Deciduous Area(s) Solar Radiation Transparency = 50% kWh/m ² /day	Unshaded % of Actual Site Azimuth=180.0 Tilt=35.6	Total Solar Resource Fraction (TSRF) (Actual vs Ideal)
January	47.7 %	2.98	2.98	1.37	0.90	46.0 %	46.0 %
February	56.6 %	3.34	3.34	1.84	0.87	55.1 %	55.1 %
March	97.8 %	5.32	5.32	5.19	0.00	97.7 %	97.7 %
April	94.3 %	5.00	5.00	4.74	0.00	94.7 %	94.7 %
May	99.2 %	5.90	5.90	5.86	0.00	99.4 %	99.4 %
June	98.6 %	5.41	5.41	5.35	0.00	98.9 %	98.9 %
July	99.0 %	5.93	5.93	5.89	0.00	99.3 %	99.3 %
August	94.3 %	5.54	5.54	5.27	0.00	95.0 %	95.0 %
September	97.0 %	5.81	5.81	5.62	0.00	96.8 %	96.8 %
October	66.5 %	4.95	4.95	3.21	0.97	64.7 %	64.7 %
November	49.0 %	3.57	3.57	1.69	1.05	47.2 %	47.2 %
December	34.4 %	2.63	2.63	0.86	0.73	32.7 %	32.7 %
Totals	77.9 % Unweighted Yearly Avg	56.39 Effect: 100% Sun Hrs: 4.70	56.39 Effect: 100.0 % Sun Hrs: 4.70	46.88 Effect: 83.1 % Sun Hrs: 3.91	4.51 Effect: 8.0 % Sun Hrs: 0.38	83.1 % Unweighted Yearly Avg	83.1 % Unweighted Yearly Avg

Solar Obstruction Data (Part 2 of 2)

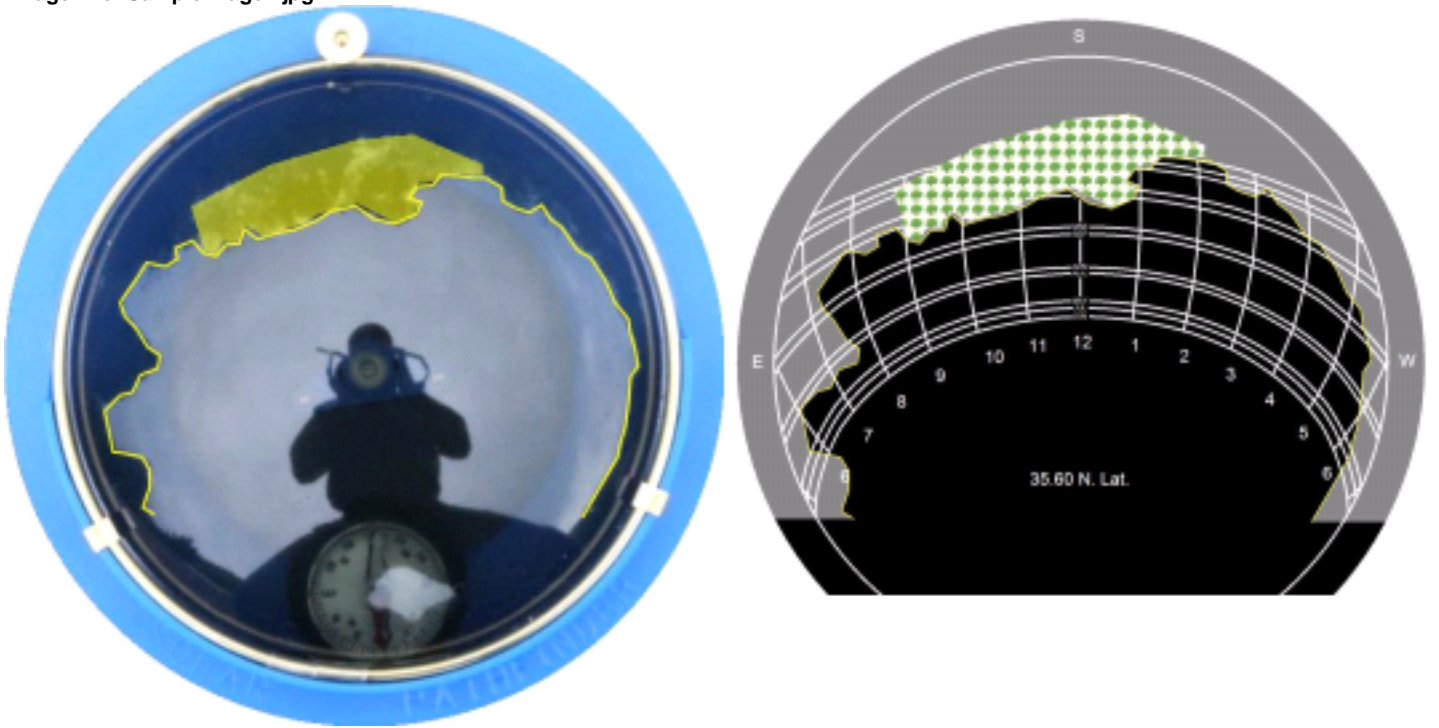
Month	Ideal Site Efficiency Azimuth=180. 0 Tilt=35.6	AC Energy Efficiency (Actual vs Ideal)	Actual Shaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	Actual Unshaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	Ideal Unshaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	PV Solar Cost Savings 0.0829 (\$/kWh)
January	46.0 %	64.7 %	203.42	314.16	314.16	\$16.86
February	55.1 %	70.5 %	210.09	298.12	298.12	\$17.42
March	97.7 %	99.1 %	522.31	527.04	527.04	\$43.30
April	94.7 %	97.1 %	459.53	473.43	473.43	\$38.09
May	99.4 %	100.0 %	569.43	569.47	569.47	\$47.21
June	98.9 %	100.0 %	492.46	492.68	492.68	\$40.82
July	99.3 %	100.0 %	558.26	558.31	558.31	\$46.28
August	95.0 %	97.5 %	508.65	521.88	521.88	\$42.17
September	96.8 %	98.8 %	518.29	524.78	524.78	\$42.97
October	64.7 %	76.5 %	369.51	483.10	483.10	\$30.63
November	47.2 %	65.1 %	222.15	341.04	341.04	\$18.42
December	32.7 %	55.7 %	146.74	263.66	263.66	\$12.16
Totals	83.1 % Unweighted Yearly Avg	89.1 %	4,780.84	5,367.69	5,367.69	\$396.33



Solar Site Analysis Report

Layout Point 2

Image File: SampleImage2.jpg



Notes: [None]



Solar Site Analysis Report

Layout Point 3

Image File: SampleImage3.jpg

Solar Obstruction Data (Part 1 of 2)

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=35.6	Ideal Unshaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Actual Unshaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Actual Shaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Deciduous Area(s) Solar Radiation Transparency = 50% kWh/m ² /day	Unshaded % of Actual Site Azimuth=180.0 Tilt=35.6	Total Solar Resource Fraction (TSRF) (Actual vs Ideal)
January	49.7 %	2.98	2.98	1.43	0.00	47.9 %	47.9 %
February	77.2 %	3.34	3.34	2.56	0.00	76.5 %	76.5 %
March	92.2 %	5.32	5.32	4.91	0.00	92.4 %	92.4 %
April	98.1 %	5.00	5.00	4.94	0.00	98.7 %	98.7 %
May	97.6 %	5.90	5.90	5.81	0.00	98.5 %	98.5 %
June	97.4 %	5.41	5.41	5.32	0.00	98.3 %	98.3 %
July	97.2 %	5.93	5.93	5.82	0.00	98.1 %	98.1 %
August	98.3 %	5.54	5.54	5.48	0.00	98.8 %	98.8 %
September	93.0 %	5.81	5.81	5.43	0.00	93.5 %	93.5 %
October	80.0 %	4.95	4.95	3.98	0.00	80.4 %	80.4 %
November	57.1 %	3.57	3.57	2.00	0.00	56.0 %	56.0 %
December	24.2 %	2.63	2.63	0.62	0.00	23.4 %	23.4 %
Totals	80.2 % Unweighted Yearly Avg	56.39 Effect: 100% Sun Hrs: 4.70	56.39 Effect: 100.0 % Sun Hrs: 4.70	48.29 Effect: 85.6 % Sun Hrs: 4.02	0.00 Effect: 0.0 % Sun Hrs: 0.00	85.6 % Unweighted Yearly Avg	85.6 % Unweighted Yearly Avg

Solar Obstruction Data (Part 2 of 2)

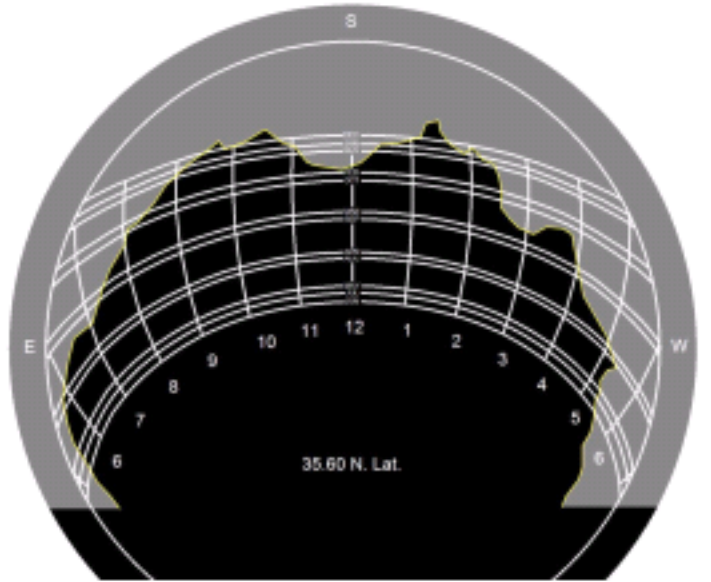
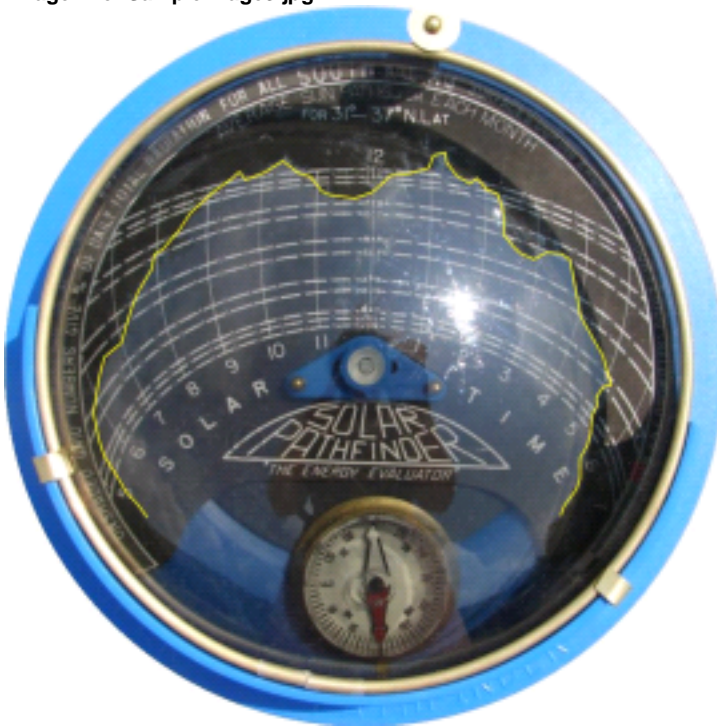
Month	Ideal Site Efficiency Azimuth=180. 0 Tilt=35.6	AC Energy Efficiency (Actual vs Ideal)	Actual Shaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	Actual Unshaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	Ideal Unshaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	PV Solar Cost Savings 0.0829 (\$/kWh)
January	47.9 %	66.2 %	207.85	314.16	314.16	\$17.23
February	76.5 %	85.4 %	254.66	298.12	298.12	\$21.11
March	92.4 %	96.1 %	506.33	527.04	527.04	\$41.97
April	98.7 %	99.9 %	472.84	473.43	473.43	\$39.20
May	98.5 %	99.8 %	568.35	569.47	569.47	\$47.12
June	98.3 %	99.7 %	491.25	492.68	492.68	\$40.73
July	98.1 %	99.6 %	556.03	558.31	558.31	\$46.09
August	98.8 %	99.8 %	520.79	521.88	521.88	\$43.17
September	93.5 %	97.0 %	509.23	524.78	524.78	\$42.21
October	80.4 %	87.5 %	422.66	483.10	483.10	\$35.04
November	56.0 %	71.4 %	243.46	341.04	341.04	\$20.18
December	23.4 %	49.2 %	129.80	263.66	263.66	\$10.76
Totals	85.6 % Unweighted Yearly Avg	91.0 %	4,883.24	5,367.69	5,367.69	\$404.82



Solar Site Analysis Report

Layout Point 3

Image File: SampleImage3.jpg



Notes: [None]



Solar Site Analysis Report

Layout Point 4

Image File: SampleImage4.jpg

Solar Obstruction Data (Part 1 of 2)

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=35.6	Ideal Unshaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Actual Unshaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Actual Shaded Solar Radiation Azimuth=180.0 Tilt=35.6 kWh/m ² /day	Deciduous Area(s) Solar Radiation Transparency = 50% kWh/m ² /day	Unshaded % of Actual Site Azimuth=180.0 Tilt=35.6	Total Solar Resource Fraction (TSRF) (Actual vs Ideal)
January	54.7 %	2.98	2.98	1.57	0.45	52.6 %	52.6 %
February	82.3 %	3.34	3.34	2.71	0.03	81.2 %	81.2 %
March	95.8 %	5.32	5.32	5.08	0.00	95.6 %	95.6 %
April	99.4 %	5.00	5.00	4.98	0.00	99.6 %	99.6 %
May	99.2 %	5.90	5.90	5.86	0.00	99.4 %	99.4 %
June	98.9 %	5.41	5.41	5.37	0.00	99.2 %	99.2 %
July	99.0 %	5.93	5.93	5.89	0.00	99.3 %	99.3 %
August	99.2 %	5.54	5.54	5.51	0.00	99.4 %	99.4 %
September	98.8 %	5.81	5.81	5.75	0.00	98.9 %	98.9 %
October	88.3 %	4.95	4.95	4.32	0.00	87.2 %	87.2 %
November	61.6 %	3.57	3.57	2.12	0.42	59.4 %	59.4 %
December	42.7 %	2.63	2.63	1.06	0.31	40.2 %	40.2 %
Totals	85.0 % Unweighted Yearly Avg	56.39 Effect: 100% Sun Hrs: 4.70	56.39 Effect: 100.0 % Sun Hrs: 4.70	50.22 Effect: 89.1 % Sun Hrs: 4.19	1.21 Effect: 2.1 % Sun Hrs: 0.10	89.1 % Unweighted Yearly Avg	89.1 % Unweighted Yearly Avg

Solar Obstruction Data (Part 2 of 2)

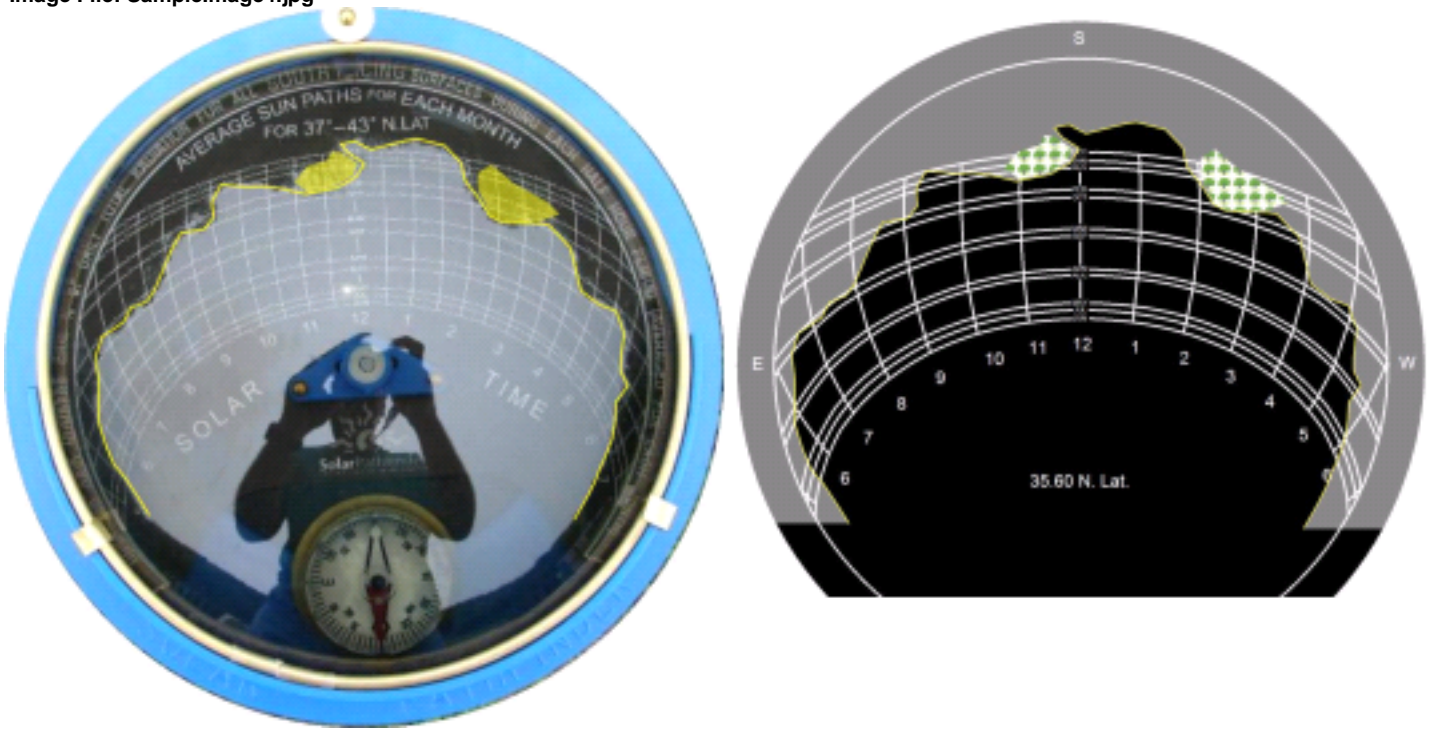
Month	Ideal Site Efficiency Azimuth=180. 0 Tilt=35.6	AC Energy Efficiency (Actual vs Ideal)	Actual Shaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	Actual Unshaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	Ideal Unshaded AC Energy (kWh) Azimuth=180. 0 Tilt=35.6	PV Solar Cost Savings 0.0829 (\$/kWh)
January	52.6 %	69.1 %	217.08	314.16	314.16	\$18.00
February	81.2 %	88.4 %	263.62	298.12	298.12	\$21.85
March	95.6 %	98.0 %	516.25	527.04	527.04	\$42.80
April	99.6 %	100.0 %	473.25	473.43	473.43	\$39.23
May	99.4 %	100.0 %	569.44	569.47	569.47	\$47.21
June	99.2 %	100.0 %	492.57	492.68	492.68	\$40.83
July	99.3 %	100.0 %	558.26	558.31	558.31	\$46.28
August	99.4 %	99.9 %	521.43	521.88	521.88	\$43.23
September	98.9 %	99.9 %	524.25	524.78	524.78	\$43.46
October	87.2 %	91.9 %	444.06	483.10	483.10	\$36.81
November	59.4 %	73.5 %	250.60	341.04	341.04	\$20.77
December	40.2 %	61.0 %	160.80	263.66	263.66	\$13.33
Totals	89.1 % Unweighted Yearly Avg	93.0 %	4,991.62	5,367.69	5,367.69	\$413.81



Solar Site Analysis Report

Layout Point 4

Image File: SampleImage4.jpg



Notes: [None]