



Site Report

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	Report Name	Jose Lamela
	Report Date	9/1/2015 3:15:53 PM
	Declination	-13d 11m
	Location	Ossining, NY 10562
	Lat/Long	41.174 / -73.846
	Weather Station	White Plains-Westchester Count, NY, Elevation: 400 Feet, (41.067/-73.717)
	Site Distance	10 Miles
	Report Type	PV
	Array Type	Fixed Angle
	Tilt Angle	21.00 deg
	Ideal Tilt Angle	30.00 deg
	Azimuth	170.00 deg
	Ideal Azimuth	180.00 deg
	Electric Cost	0.26 (\$/kWh)
	Module Make	LG Electronics
	Module Model	LG305N1W-B3
	Module Type	Standard
	Module Count	20
	DC Rate (per module)	305.0 Watts
	Unshaded Percent	89.7 %
	STC System Size	6.10 kW
	DC System Size	5.47 kW
	AC System Size	4.75 kW
	Inverter Make	SolarEdge Technologies
	Inverter Model	SE5000 (240V) w/ -ER-US or A-US
	Inverter Count	1
	Inverter Efficiency	98.0 %
	System Loss Percentage	11.4 %
<	AC Energy Efficiency	87.1 %
	Layout Configuration	Four Corner
	Layout Point Count	4

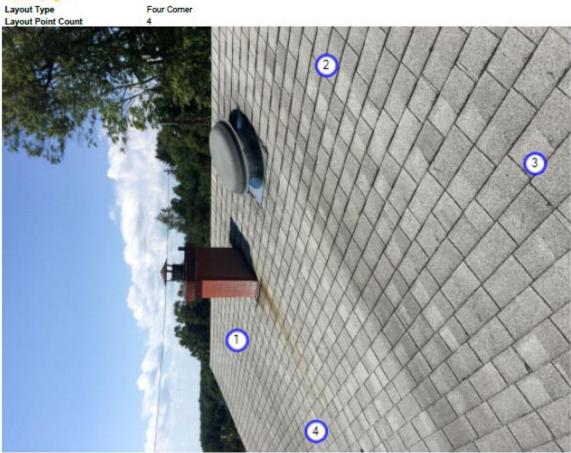
Notes:

Solar Pathfinder calls the TSRF "AC Energy Efficiency". This figure is included in recent patches of the Solar Pathfinder Assistant software.





System Picture Layout



The site evaluator took a shading image from each corner of the array location. This is best practice, and much more accurate than a single image taken from the center of the array.





#### Summary Report

Solar Obs	Solar Obstruction Data							
Month	Unshaded % of Ideal Site Azimuth=180 Tilt=41.2	Actual Shaded Solar Radiation Azimuth=170.0 Tilt=21.0 kWh/m ^a	AC Energy Efficiency Azimuth=170.0 Tilt=21.0	Actual Shaded AC Energy (kWh) Azimuth=170.0 Tilt=21.0	Actual Unshaded AC Energy (kWh) Azimuth=170.0 Tilt=21.0	Ideal Unshaded AC Energy (kWh) Azimuth=180.0 Tilt=30.0		
January	72.5 %	2.17	66.0 %	377.29	509.00	572.00		
February	86.7 %	4.12	79.8 %	637.07	729.00	798.00		
March	90.9 %	4.43	88.0 %	718.14	785.00	816.00		
April	93.6 %	4.11	94.8 %	623.83	662.00	658.00		
May	97.3 %	5.11	100.2 %	789.23	807.00	788.00		
June	99.3 %	4.86	103.1 %	699.77	701.00	679.00		
July	98.7 %	4.80	101.8 %	702.50	708.00	690.00		
August	94.3 %	4.50	96.2 %	674.13	710.00	701.00		
September	90.3 %	3.63	88.8 %	525.88	579.00	592.00		
October	86.8 %	3.51	81.6 %	553.82	636.00	679.00		
November	74.7 %	2.19	66.9 %	345.02	467.00	516.00		
December	72.5 %	2.00	64.6 %	344.16	468.00	533.00		
Totals	88.1 %	45.45	87.1 %	6,990.83	7,761.00	8,022.00		
	Unweighted	Effect: 86.9 %						
	Yearly Avg	Sun Hrs: 3.79						

Notes: The TSRF equals the "Actual Shaded AC Energy" divided by the "Ideal Unshaded AC Energy". In other words, the percent of ideal sunlight at the site that the array will actually receive, accounting for losses from tilt, azimuth, and shading.

TSRF = 6990.83kWh/year divided by 8,022kWh/year

TSRF = 87% (round to the nearest whole percent)

This 87% TSRF matches the "AC Energy Efficiency" figure on the first page of the report.

This report also calculates the PV system's estimated annual output, 6,991kWh per year.

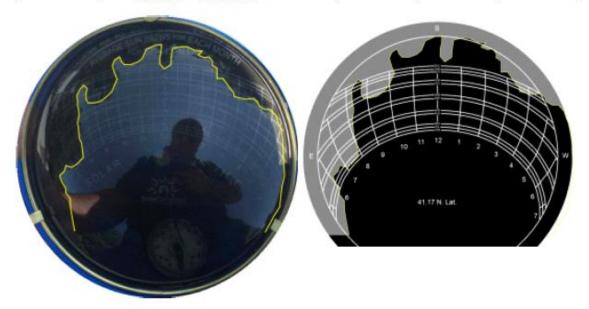




Solar Site Analysis Report

Image File: "Photo Aug 14, 2 08 30 PM.jpg" Layout Point: 1

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=41.2	Actual Shaded Solar Radiation Azimuth=170.0 Tilt=21.0 kWh/m ²	AC Energy Efficiency Azimuth=170.0 Tilt=21.0	Actual Shaded AC Energy (kWh) Azimuth=170.0 Tilt=21.0	Actual Unshaded AC Energy (kWh) Azimuth=170.0 Tilt=21.0	Ideal Unshaded AC Energy (kWh) Azimuth=180.0 Tilt=30.0
January	76.9 %	2.30	69.6 %	398.11	509.00	572.00
February	82.7 %	3.95	76.1 %	607.48	729.00	798.00
March	92.9 %	4.53	89.9 %	733.22	785.00	816.00
April	92.0 %	4.04	93.6 %	616.10	662.00	658.00
May	93.8 %	4.92	96.7 %	762.02	807.00	788.00
June	98.9 %	4.84	103.0 %	699.23	701.00	679.00
July	96.2 %	4.68	99.6 %	687.40	708.00	690.00
August	91.4 %	4.36	93.7 %	656.69	710.00	701.00
September	91.4 %	3.68	90.1 %	533.38	579.00	592.00
October	83.6 %	3.38	77.9 %	529.10	636.00	679.00
November	76.6 %	2.24	68.2 %	351.74	467.00	516.00
December	77.7 %	2.15	69.3 %	369.28	468.00	533.00
Totals	87.8 %	45.08	86.6 %	6,943.74	7,761.00	8,022.00
	Unweighted	Effect: 86.2 %				
	Yearly Avg	Sun Hrs: 3.76				



The installer has accurately traced around all shading obstructions.

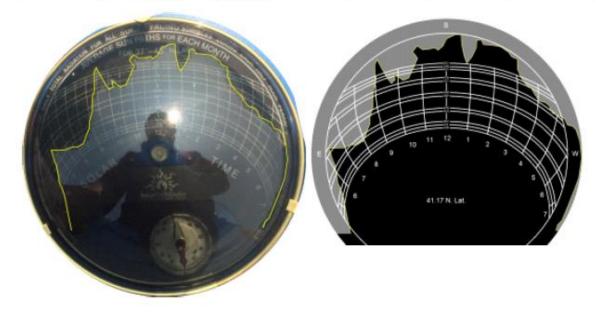




Solar Site Analysis Report

Image File: "Photo Sep 03, 1 06 01 PM.jpg" Layout Point: 2

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=41.2	Actual Shaded Solar Radiation Azimuth=170.0 Tilt=21.0 kWh/m ²	AC Energy Efficiency Azimuth=170.0 Tilt=21.0	Actual Shaded AC Energy (kWh) Azimuth=170.0 Tilt=21.0	Actual Unshaded AC Energy (kWh) Azimuth=170.0 Tilt=21.0	Ideal Unshaded AC Energy (kWh) Azimuth=180.0 Tilt=30.0
January	71.2 %	2.13	65.1 %	372.59	509.00	572.00
February	90.3 %	4.30	83.2 %	663.92	729.00	798.00
March	88.3 %	4.31	85.4 %	696.52	785.00	816.00
April	94.1 %	4.13	94.8 %	623.93	662.00	658.00
May	99.5 %	5.22	102.4 %	807.00	807.00	788.00
June	99.8 %	4.89	103.2 %	700.74	701.00	679.00
July	99.7 %	4.85	102.6 %	708.00	708.00	690.00
August	96.7 %	4.61	98.2 %	688.09	710.00	701.00
September	88.2 %	3.54	86.6 %	512.67	579.00	592.00
October	87.2 %	3.52	81.3 %	552.23	636.00	679.00
November	74.1 %	2.17	66.2 %	341.37	467.00	516.00
December	72.1 %	2.00	64.6 %	344.10	468.00	533.00
Totals	88.4 %	45.68	87.4 %	7,011.17	7,761.00	8,022.00
	Unweighted	Effect: 87.4 %				
	Yearly Avg	Sun Hrs: 3.81				



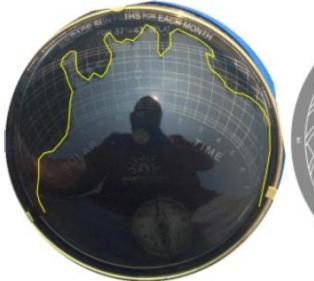


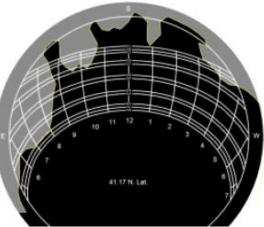


Solar Site Analysis Report

Image File: "Photo Sep 03, 1 06 15 PM.jpg" Layout Point: 3

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=41.2	Actual Shaded Solar Radiation Azimuth=170.0 Tilt=21.0 kWh/m ²	AC Energy Efficiency Azimuth=170.0 Tilt=21.0	Actual Shaded AC Energy (kWh) Azimuth=170.0 Tilt=21.0	Actual Unshaded AC Energy (kWh) Azimuth=170.0 Tilt=21.0	Ideal Unshaded AC Energy (kWh) Azimuth=180.0 Tilt=30.0
January	72.1 %	2.16	65.5 %	374.82	509.00	572.00
February	85.6 %	4.08	78.7 %	628.35	729.00	798.00
March	88.7 %	4.33	85.8 %	700.03	785.00	816.00
April	89.1 %	3.91	90.5 %	595.81	662.00	658.00
May	97.2 %	5.10	99.4 %	783.66	807.00	788.00
June	100.0 %	4.90	103.2 %	701.00	701.00	679.00
July	100.0 %	4.87	102.6 %	708.00	708.00	690.00
August	89.7 %	4.28	91.9 %	644.08	710.00	701.00
September	87.7 %	3.53	86.3 %	511.17	579.00	592.00
October	88.1 %	3.55	82.2 %	558.46	636.00	679.00
November	72.7 %	2.12	64.4 %	332.53	467.00	516.00
December	71.8 %	1.98	63.5 %	338.58	468.00	533.00
Totals	86.9 %	44.82	85.7 %	6,876.49	7,761.00	8,022.00
	Unweighted	Effect: 85.7 %	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	50 COURSES		120000000
	Yearly Avg	Sun Hrs: 3.73	5	6	8 8	









Solar Site Analysis Report

Image File: "Photo Aug 14, 2 09 25 PM.jpg" Layout Point: 4

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=41.2	Actual Shaded Solar Radiation Azimuth=170.0 Tilt=21.0 kWh/m ²	AC Energy Efficiency Azimuth=170.0 Tilt=21.0	Actual Shaded AC Energy (kWh) Azimuth=170.0 Tilt=21.0	Actual Unshaded AC Energy (kWh) Azimuth=170.0 Tilt=21.0	Ideal Unshaded AC Energy (kWh) Azimuth=180.0 Tilt=30.0
January	69.8 %	2.08	63.6 %	363.62	509.00	572.00
February	88.3 %	4.16	81.3 %	648.52	729.00	798.00
March	93.8 %	4.57	91.0 %	742.80	785.00	816.00
April	99.2 %	4.36	100.2 %	659.50	662.00	658.00
May	98.8 %	5.18	102.1 %	804.23	807.00	788.00
June	98.6 %	4.83	102.8 %	698.10	701.00	679.00
July	98.9 %	4.81	102.4 %	706.61	708.00	690.00
August	99.2 %	4.73	100.9 %	707.64	710.00	701.00
September	93.9 %	3.78	92.3 %	546.30	579.00	592.00
October	88.3 %	3.59	84.8 %	575.48	636.00	679.00
November	75.5 %	2.23	68.7 %	354.44	467.00	516.00
December	68.4 %	1.88	60.9 %	324.68	468.00	533.00
Totals	89.4 %	46.20	88.9 %	7,131.92	7,761.00	8,022.00
	Unweighted	Effect: 88.4 %			8	10100
	Yearly Avg	Sun Hrs: 3.85	2		0	



