Upstate Alternative Energy
Site Report

Report Name	Mike Walzack
Report Date	7/27/2009 1:46:46 PM
Declination	-12d 33m
Location	Lat/Long specified
Lat/Long	43.01 / -76.0
Weather Station	Syracuse-Hancock Intl AP, NY, Elevation: 410 Feet, (43.117/-76.100)
Site Distance	9 Miles
Report Type	Thermal
Array Type	Fixed Angle
Tilt Angle	70.00 deg
Ideal Tilt Angle	43.01 deg
Azimuth	177.40 deg
Ideal Azimuth	180.00 deg
Collector Make	Silicon Solar Inc.
Collector Model	30 EVT
Collector Area	55.9 Sq. Feet
Collector Count	2
Total Collector Area	111.7 Sq. Feet
Solar Fraction	0.559
Annual Production	10.925 Million BTU
Electricity Saved	3,478.9 KWH
Annual Savings	$556.62
Collector Fluid	Glycol
Layout Configuration	Custom
Layout Point Count	2

Notes: [None]

Upstate Alternative Energy
System Picture Layout

Layout Type Custom
Layout Point Count 2

Upstate Alternative Energy
Thermal Energy Cost Savings

Energy Source Used to Heat Water

Energy Source	Electricity
Energy Efficiency	100.0 %
Energy Cost	$0.16 per KWH
Total Electricity Saved	3,478.9 KWH

Estimated Monthly Savings

January	$31.46
February	$40.61
March	$53.38
April	$51.53
May	$57.99
June	$51.85
July	$56.20
August	$58.64
September	$54.15
October	$46.14
November	$28.64
December	$26.03
Annual Savings	$556.62

Notes: [None]

Upstate Alternative Energy
Thermal Data Input Assumptions

Estimated Average Daily Hot Water Usage (gallons/day)

January	75.0
February	75.0
March	75.0
April	75.0
May	75.0
June	75.0
July	75.0
August	75.0
September	75.0
October	75.0
November	75.0
December	75.0

Other Assumptions

Tank Temperature	135.0 °F
Water Supply Temperature	55.0 °F
Main Tank Volume	80.0 Gallons
Secondary Tank Volume	0.0 Gallons
Heat Exchanger Efficiency	95.00 %

Notes: [None]

Upstate Alternative Energy
Summary Report

Solar Obstruction Data

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=43.01	Actual Shaded Solar Radiation Azimuth=177.4 Tilt=70.0 KWH/m^2/day	Solar Hot Water Shaded Cost Savings Electricity $0.16/KWH	Solar Hot Water Solar Fraction Azimuth=177.4 Tilt=70.0	Solar Hot Water Produced Azimuth=177.4 Tilt=70.0 MMBTU	Solar Hot Water Demand Azimuth=177.4 Tilt=70.0 MMBTU
January	95.77 %	2.43	$31.46	0.372	0.617	1.661
February	98.18 %	3.39	$40.61	0.531	0.797	1.501
March	98.50 %	3.99	$53.38	0.631	1.048	1.661
April	98.25 %	3.93	$51.53	0.629	1.011	1.608
May	98.46 %	4.26	$57.99	0.685	1.138	1.661
June	98.06 %	3.87	$51.85	0.633	1.018	1.608
July	98.36 %	4.06	$56.20	0.664	1.103	1.661
August	98.55 %	4.28	$58.64	0.693	1.151	1.661
September	98.04 %	4.09	$54.15	0.661	1.063	1.608
October	98.73 %	3.37	$46.14	0.545	0.906	1.661
November	98.08 %	2.25	$28.64	0.350	0.562	1.608
December	95.08 %	2.07	$26.03	0.308	0.511	1.661
Totals	**97.84%**	**41.98**	**$556.62**	**0.559**	**10.925**	**19.560**
	Unweighted Yearly Avg	**Effect: 83.80% Sun Hrs: 3.50**				

Notes: [None]

Upstate Alternative Energy
Solar Site Analysis Report

Image File 0727091314.jpg

Solar Obstruction Data

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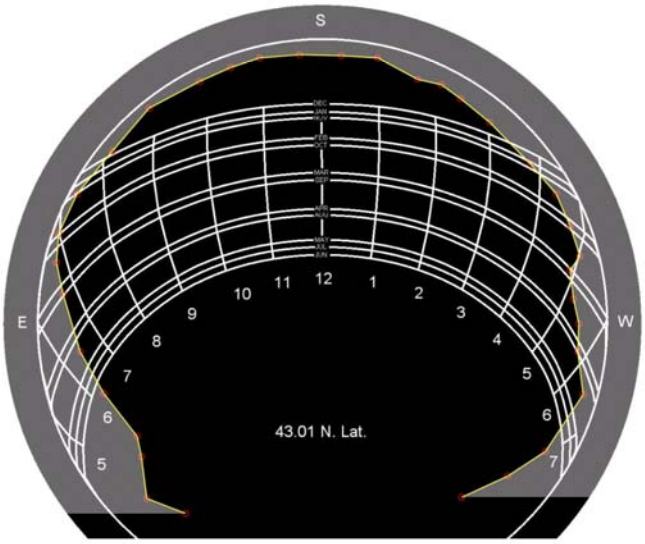
Totals	**97.84%**	**41.98**	**$556.62**	**0.558**	**10.924**	**19.561**
	Unweighted Yearly Avg	**Effect: 83.80% Sun Hrs: 3.50**				

Notes: [None]