MANTIS™ INNOVATION

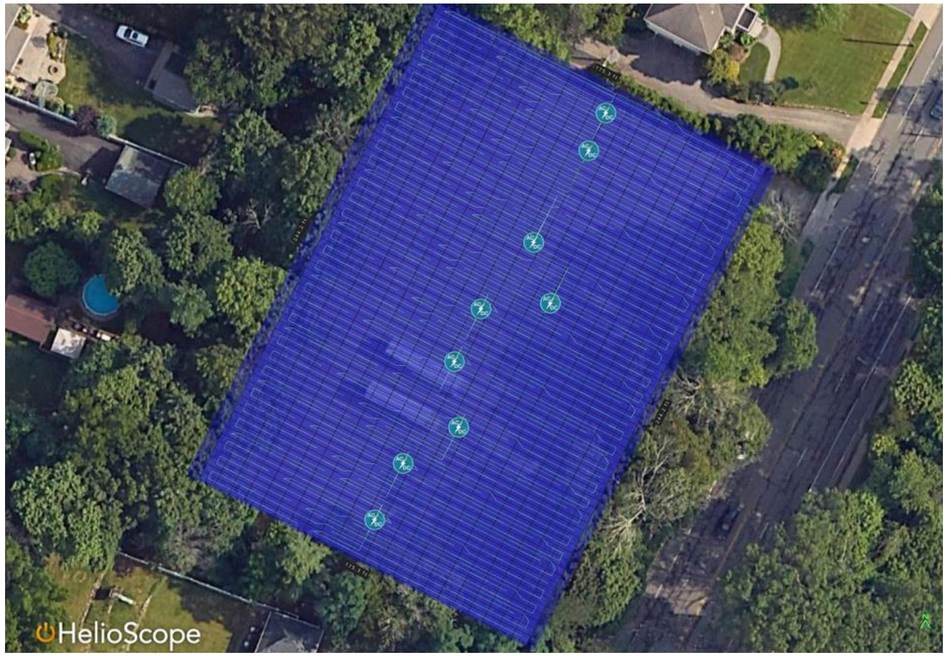
dGEN energy partners

Solar Power

For Township of Verona

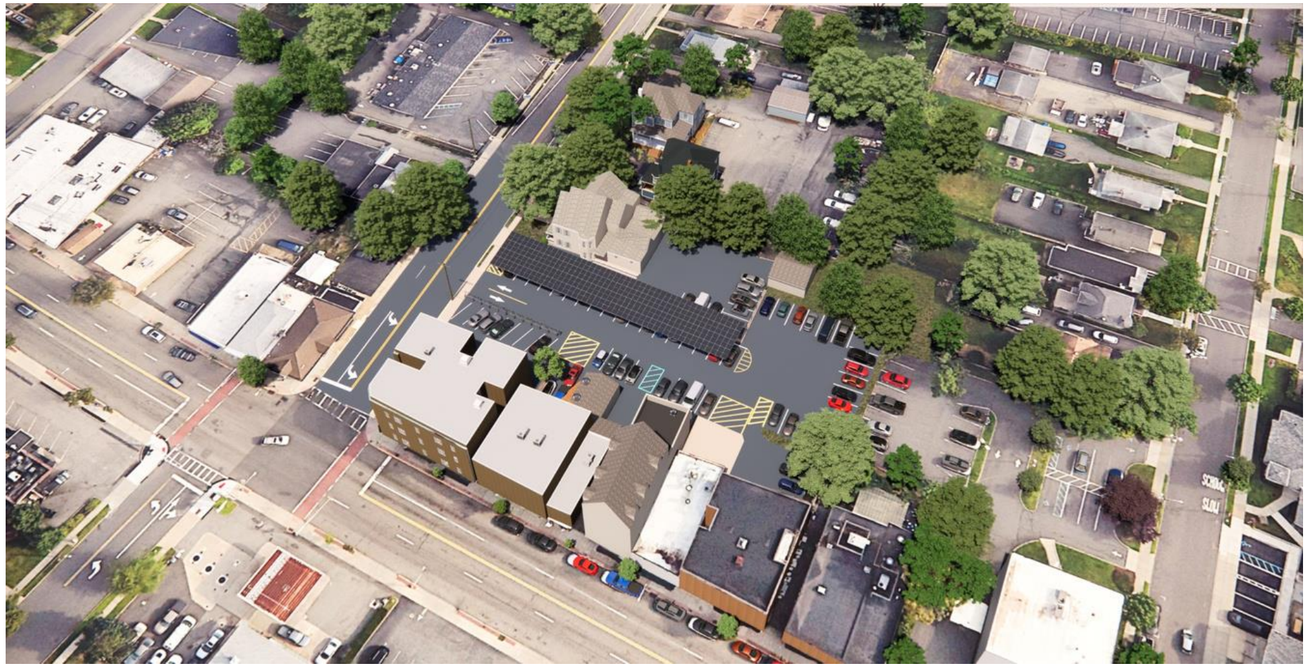
AUGUST 19, 2024

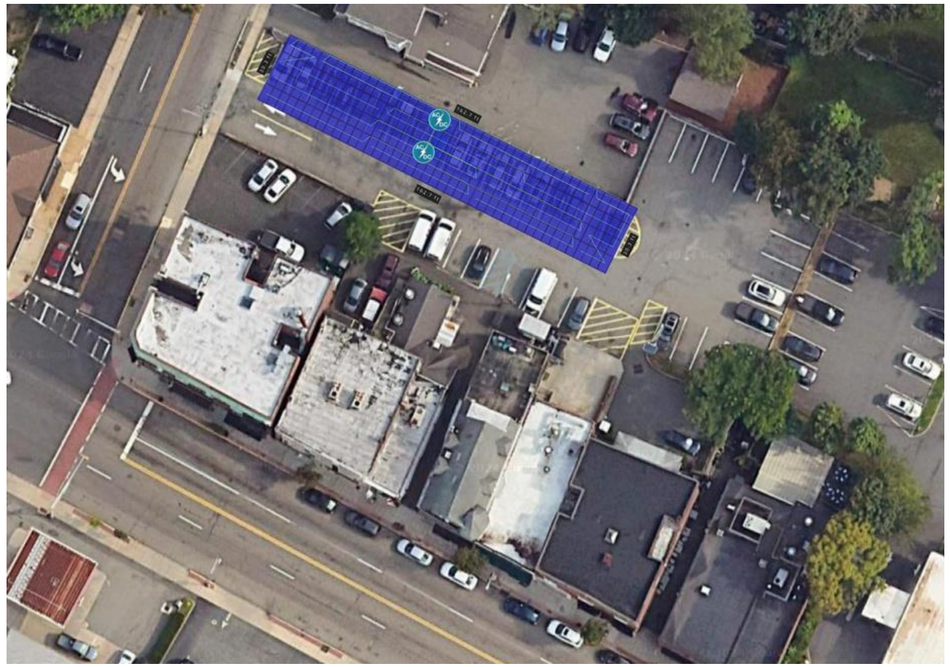
Lakeside Avenue Parking Lot



Municipal Parking Lot 1

Municipal Parking Lot 2





Waste Water Treatment Plant

White Rock & Bloomfield

Project Financials

Site	Total Cost	State Credit	Federal Credit	Upfront Payment	Dollars Saved	Payback (years)
Lakeside Lot	$ 4,436,586.00	$ 2,099,512.00	$ 1,330,976.00	$ 1,006,098.00	$ 69,245.00	14.5
Municipal Lot 1	$ 2,461,536.00	$ 1,323,082.00	$ 738,461.00	$ 399,993.00	$ 44,194.00	9.1
Municipal Lot 2	$ 630,982.00	$ 254,994.00	$ 189,295.00	$ 186,693.00	$ 8,688.00	21.5
Waste Water Treatment Plant	$ 326,288.00	$ 237,718.00	$ 97,886.00	$ (9,316.00)	$ 10,153.00	-0.9
White Rock & Bloomfield	$ 935,803.00	$ 452,799.00	$ 280,741.00	$ 202,263.00	$ 13,954.00	14.5
Total	**$ 8,791,195.00**	**$ 4,368,105.00**	**$ 2,637,359.00**	**$ 1,785,731.00**	**$ 146,234.00**	**12.2**

Lakeside Lot

GENERAL INFORMATION

Facility: Lakeside Ave. Lot
Address: 46 Lakeside Ave Verona NJ 07044

SOLAR PV SYSTEM RATING

Power Rating: 762,300 W-DC
Power Rating: 540,000.0 W-AC

SOLAR PV EQUIPMENT DESCRIPTION

Solar Panels: (1386) ZNShine Solar ZXM7-SHDB144-550 (2022)
Inverters: (9) Sungrow SG60CX-US

ENERGY CONSUMPTION MIX

Annual Energy Use: 1,800,000 kWh

Utility 845,763 kWh (46.99%)
Solar PV 954,237 kWh (53.01%)

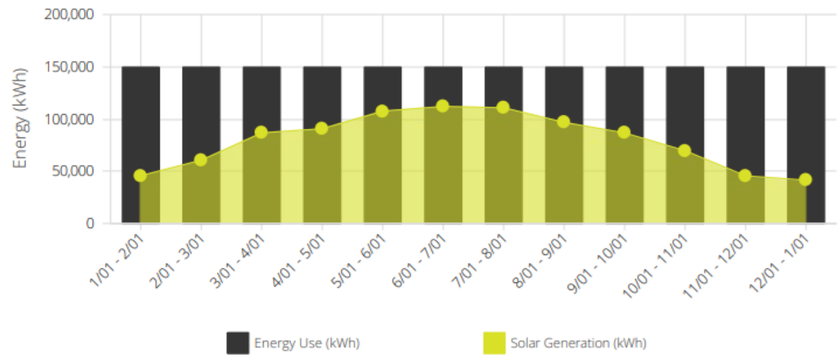
SOLAR PV EQUIPMENT TYPICAL LIFESPAN

Solar Panels: Greater than 30 Years
Inverters: 15 Years

Solar PV System Cost and Incentives

Solar PV System Cost	$4,436,586
NJ TREC	-$2,099,512
Federal Tax Credit	-$1,330,976
Net Solar PV System Cost	**$1,006,098**

MONTHLY ENERGY USE VS SOLAR GENERATION



Assumptions and Key Financial Metrics

IRR - Term	4.4%	Net Present Value	($223,424)	Payback Period	14.4 Years
ROI	54.6%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	5.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	5.5%
Total Project Costs	$4,436,586				

Years	Project Costs	O&M / Equipment Replacement	NJ TREC	Electric Bill Savings	Federal Tax Effect	Total Cash Flow	Cumulative Cash Flow
Upfront	-$4,436,586	-	-	-	-	-$4,436,586	-$4,436,586
1	-	-$15,246	$145,044	$69,245	$1,330,976	$1,530,018	-$2,906,568
2	-	-$15,703	$144,319	$72,343	-	$200,959	-$2,705,609
3	-	-$16,174	$143,594	$75,579	-	$202,998	-$2,502,611
4	-	-$16,660	$142,868	$78,957	-	$205,165	-$2,297,446
5	-	-$17,160	$142,143	$82,484	-	$207,467	-$2,089,978
6	-	-$17,674	$141,418	$86,166	-	$209,910	-$1,880,068
7	-	-$18,205	$140,693	$90,011	-	$212,499	-$1,667,570
8	-	-$18,751	$139,967	$94,024	-	$215,241	-$1,452,329
9	-	-$19,313	$139,242	$98,214	-	$218,143	-$1,234,186
10	-	-$19,893	$138,517	$102,587	-	$221,212	-$1,012,975
11	-	-$20,489	$137,792	$107,153	-	$224,455	-$788,520
12	-	-$21,104	$137,067	$111,918	-	$227,881	-$560,639
13	-	-$21,737	$136,341	$116,892	-	$231,496	-$329,143
14	-	-$22,389	$135,616	$122,084	-	$235,311	-$93,832
15	-	-$23,061	$134,891	$127,503	-	$239,333	$145,500
16	-	-$56,153	-	$133,158	-	$77,005	$222,506
17	-	-$24,465	-	$139,060	-	$114,595	$337,100
18	-	-$25,199	-	$145,220	-	$120,020	$457,120
19	-	-$25,955	-	$151,647	-	$125,692	$582,812
20	-	-$26,734	-	$158,355	-	$131,621	$714,433
21	-	-$27,536	-	$165,354	-	$137,818	$852,251
22	-	-$28,362	-	$172,657	-	$144,295	$996,546
23	-	-$29,213	-	$180,277	-	$151,064	$1,147,610
24	-	-$30,089	-	$188,227	-	$158,138	$1,305,748
25	-	-$30,992	-	$196,522	-	$165,530	$1,471,278
26	-	-$31,922	-	$205,176	-	$173,254	$1,644,533
27	-	-$32,879	-	$214,204	-	$181,324	$1,825,857
28	-	-$33,866	-	$223,621	-	$189,755	$2,015,612
29	-	-$34,882	-	$233,445	-	$198,563	$2,214,175
30	-	-$35,928	-	$243,692	-	$207,764	$2,421,939
Totals:	-$4,436,586	-$757,735	$2,099,512	$4,185,772	$1,330,976	$2,421,939	-

Municipal Lot 1

GENERAL INFORMATION

Facility: Municipal Lot #1
Address: Park Pl Verona NJ 07044

SOLAR PV SYSTEM RATING

Power Rating: 488,400 W-DC
Power Rating: 360,000.0 W-AC

SOLAR PV EQUIPMENT DESCRIPTION

Solar Panels: (888) ZNShine Solar ZXM7-SHDB144-550 (2022)
Inverters: (6) Sungrow SG60CX-US

ENERGY CONSUMPTION MIX

Annual Energy Use: 1,800,000 kWh

Utility 1,198,655 kWh (66.59%)
Solar PV 601,345 kWh (33.41%)

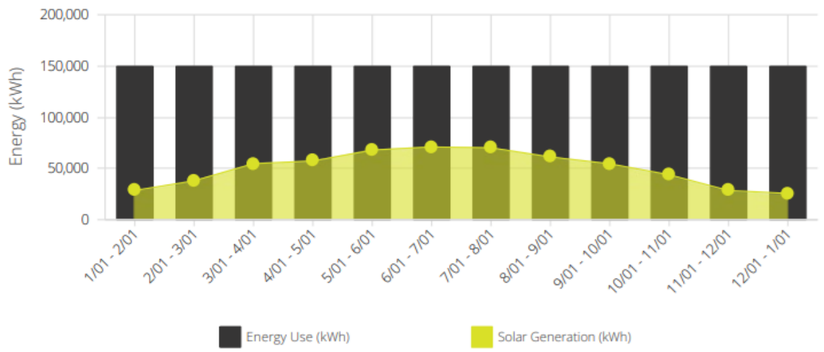
SOLAR PV EQUIPMENT TYPICAL LIFESPAN

Solar Panels: Greater than 30 Years
Inverters: 15 Years

Solar PV System Cost and Incentives

Solar PV System Cost	$2,461,536
Federal Tax Credit	-$738,461
NJ TREC	-$1,323,082
Net Solar PV System Cost	**$399,994**

MONTHLY ENERGY USE VS SOLAR GENERATION



Assumptions and Key Financial Metrics

IRR - Term	5.6%	Net Present Value	$108,714	Payback Period	12.8 Years
ROI	72.5%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	5.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	5.5%
Total Project Costs	$2,461,536				

Years	Project Costs	O&M / Equipment Replacement	NJ TREC	Electric Bill Savings	Federal Tax Effect	Total Cash Flow	Cumulative Cash Flow
Upfront	-$2,461,536	-	-	-	-	-$2,461,536	-$2,461,536
1	-	-$9,768	$91,405	$44,194	$738,461	$864,291	-$1,597,245
2	-	-$10,061	$90,948	$46,171	-	$127,058	-$1,470,187
3	-	-$10,363	$90,491	$48,236	-	$128,364	-$1,341,823
4	-	-$10,674	$90,034	$50,392	-	$129,752	-$1,212,071
5	-	-$10,994	$89,577	$52,643	-	$131,226	-$1,080,845
6	-	-$11,324	$89,119	$54,994	-	$132,789	-$948,056
7	-	-$11,664	$88,662	$57,447	-	$134,446	-$813,610
8	-	-$12,013	$88,205	$60,008	-	$136,201	-$677,409
9	-	-$12,374	$87,748	$62,682	-	$138,057	-$539,352
10	-	-$12,745	$87,291	$65,474	-	$140,020	-$399,332
11	-	-$13,127	$86,834	$68,388	-	$142,095	-$257,237
12	-	-$13,521	$86,377	$71,429	-	$144,285	-$112,952
13	-	-$13,927	$85,920	$74,604	-	$146,597	$33,645
14	-	-$14,345	$85,463	$77,917	-	$149,036	$182,681
15	-	-$14,775	$85,006	$81,375	-	$151,607	$334,287
16	-	-$36,818	-	$84,985	-	$48,167	$382,454
17	-	-$15,675	-	$88,752	-	$73,077	$455,531
18	-	-$16,145	-	$92,683	-	$76,538	$532,069
19	-	-$16,629	-	$96,785	-	$80,156	$612,225
20	-	-$17,128	-	$101,066	-	$83,938	$696,163
21	-	-$17,642	-	$105,533	-	$87,891	$784,054
22	-	-$18,171	-	$110,194	-	$92,023	$876,076
23	-	-$18,716	-	$115,058	-	$96,341	$972,417
24	-	-$19,278	-	$120,132	-	$100,854	$1,073,271
25	-	-$19,856	-	$125,426	-	$105,569	$1,178,840
26	-	-$20,452	-	$130,949	-	$110,497	$1,289,337
27	-	-$21,066	-	$136,710	-	$115,645	$1,404,982
28	-	-$21,698	-	$142,721	-	$121,023	$1,526,005
29	-	-$22,348	-	$148,991	-	$126,642	$1,652,647
30	-	-$23,019	-	$155,531	-	$132,512	$1,785,159
Totals:	-$2,461,536	-$486,317	$1,323,082	$2,671,469	$738,461	$1,785,159	-

Waste Water Plant

GENERAL INFORMATION

Facility: Sewage Plant
Address: Verona NJ

SOLAR PV SYSTEM RATING

Power Rating: 96,250 W-DC
Power Rating: 120,000.0 W-AC

SOLAR PV EQUIPMENT DESCRIPTION

Solar Panels: (175) ZNShine Solar ZXM7-SHDB144-550 (2022)
Inverters: (2) Sungrow SG60CX-US

ENERGY CONSUMPTION MIX

Annual Energy Use: 1,803,024 kWh

Utility 1,694,978 kWh (94.01%)
Solar PV 108,046 kWh (5.99%)

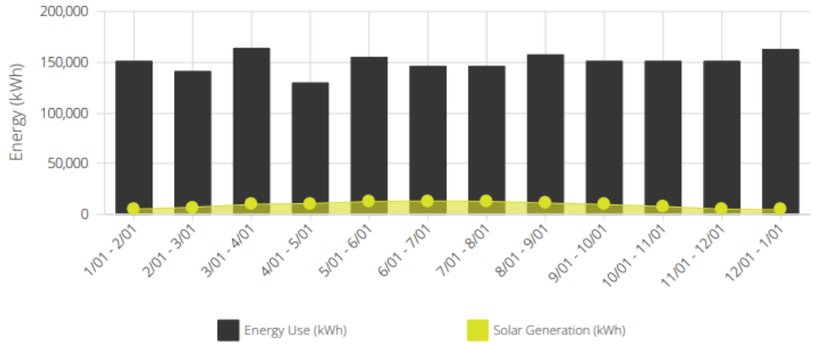
SOLAR PV EQUIPMENT TYPICAL LIFESPAN

Solar Panels: Greater than 30 Years
Inverters: 15 Years

Solar PV System Cost and Incentives

Solar PV System Cost	$326,288
Federal Tax Credit	-$97,886
NJ TREC	-$237,718
Net Solar PV System Cost	**-$9,316**

MONTHLY ENERGY USE VS SOLAR GENERATION



Assumptions and Key Financial Metrics

IRR - Term	10.2%	Net Present Value	$155,772	Payback Period	8.8 Years
ROI	160.7%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	5.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	5.5%
Total Project Costs	$326,288				

Years	Project Costs	O&M / Equipment Replacement	NJ TREC	Electric Bill Savings	Federal Tax Effect	Total Cash Flow	Cumulative Cash Flow
Upfront	-$326,288	-	-	-	-	-$326,288	-$326,288
1	-	-$1,925	$16,423	$10,153	$97,886	$122,537	-$203,750
2	-	-$1,983	$16,341	$10,608	-	$24,965	-$178,785
3	-	-$2,042	$16,258	$11,082	-	$25,298	-$153,487
4	-	-$2,103	$16,176	$11,577	-	$25,650	-$127,836
5	-	-$2,167	$16,094	$12,095	-	$26,022	-$101,814
6	-	-$2,232	$16,012	$12,635	-	$26,415	-$75,399
7	-	-$2,299	$15,930	$13,198	-	$26,830	-$48,570
8	-	-$2,368	$15,848	$13,787	-	$27,267	-$21,303
9	-	-$2,439	$15,766	$14,401	-	$27,728	$6,426
10	-	-$2,512	$15,684	$15,042	-	$28,214	$34,640
11	-	-$2,587	$15,602	$15,712	-	$28,726	$63,366
12	-	-$2,665	$15,519	$16,410	-	$29,265	$92,631
13	-	-$2,745	$15,437	$17,140	-	$29,833	$122,464
14	-	-$2,827	$15,355	$17,901	-	$30,429	$152,893
15	-	-$2,912	$15,273	$18,696	-	$31,057	$183,950
16	-	-$10,199	-	$19,525	-	$9,326	$193,276
17	-	-$3,089	-	$20,390	-	$17,301	$210,577
18	-	-$3,182	-	$21,293	-	$18,112	$228,689
19	-	-$3,277	-	$22,236	-	$18,959	$247,648
20	-	-$3,375	-	$23,220	-	$19,844	$267,492
21	-	-$3,477	-	$24,246	-	$20,769	$288,261
22	-	-$3,581	-	$25,317	-	$21,736	$309,997
23	-	-$3,688	-	$26,434	-	$22,745	$332,742
24	-	-$3,799	-	$27,600	-	$23,801	$356,543
25	-	-$3,913	-	$28,816	-	$24,903	$381,445
26	-	-$4,031	-	$30,085	-	$26,054	$407,500
27	-	-$4,151	-	$31,409	-	$27,257	$434,757
28	-	-$4,276	-	$32,790	-	$28,514	$463,270
29	-	-$4,404	-	$34,230	-	$29,826	$493,096
30	-	-$4,536	-	$35,733	-	$31,196	$524,292
Totals:	-$326,288	-$98,783	$237,718	$613,758	$97,886	$524,292	-

Municipal Lot 2

GENERAL INFORMATION

Facility: Municipal Lot #2
Address: 15 Grove Ave Verona NJ 07044

SOLAR PV SYSTEM RATING

Power Rating: 94,600 W-DC
Power Rating: 120,000.0 W-AC

SOLAR PV EQUIPMENT DESCRIPTION

Solar Panels: (172) ZNShine Solar ZXM7-SHDB144-550 (2022)
Inverters: (2) Sungrow SG60CX-US

ENERGY CONSUMPTION MIX

Annual Energy Use: 1,800,000 kWh

Utility 1,684,105 kWh (93.56%)
Solar PV 115,895 kWh (6.44%)

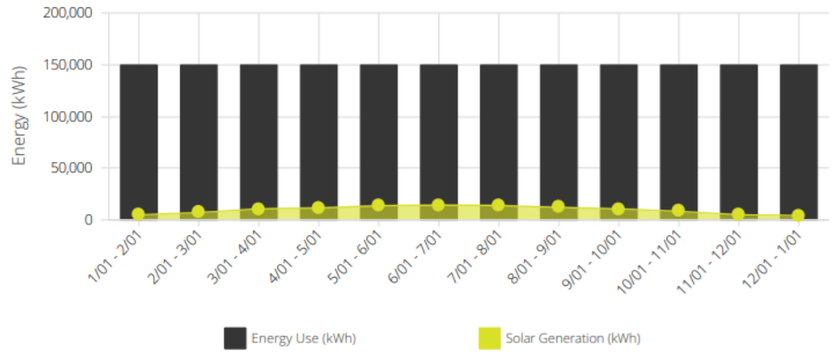
SOLAR PV EQUIPMENT TYPICAL LIFESPAN

Solar Panels: Greater than 30 Years
Inverters: 15 Years

Solar PV System Cost and Incentives

Solar PV System Cost	$630,982
Federal Tax Credit	-$189,295
NJ TREC	-$254,994
Net Solar PV System Cost	**$186,693**

MONTHLY ENERGY USE VS SOLAR GENERATION



Assumptions and Key Financial Metrics

IRR - Term	3.2%	Net Present Value	($87,951)	Payback Period	18.4 Years
ROI	38.2%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	5.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	5.5%
Total Project Costs	$630,982				

Years	Project Costs	O&M / Equipment Replacement	NJ TREC	Electric Bill Savings	Federal Tax Effect	Total Cash Flow	Cumulative Cash Flow
Upfront	-$630,982	-	-	-	-	-$630,982	-$630,982
1	-	-$1,892	$17,616	$8,688	$189,295	$213,707	-$417,275
2	-	-$1,949	$17,528	$9,077	-	$24,657	-$392,618
3	-	-$2,007	$17,440	$9,483	-	$24,916	-$367,702
4	-	-$2,067	$17,352	$9,907	-	$25,192	-$342,510
5	-	-$2,129	$17,264	$10,350	-	$25,484	-$317,026
6	-	-$2,193	$17,176	$10,812	-	$25,794	-$291,232
7	-	-$2,259	$17,088	$11,294	-	$26,123	-$265,109
8	-	-$2,327	$17,000	$11,798	-	$26,470	-$238,639
9	-	-$2,397	$16,912	$12,323	-	$26,838	-$211,801
10	-	-$2,469	$16,823	$12,872	-	$27,227	-$184,574
11	-	-$2,543	$16,735	$13,445	-	$27,638	-$156,936
12	-	-$2,619	$16,647	$14,043	-	$28,071	-$128,865
13	-	-$2,698	$16,559	$14,667	-	$28,529	-$100,336
14	-	-$2,778	$16,471	$15,319	-	$29,011	-$71,325
15	-	-$2,862	$16,383	$15,998	-	$29,520	-$41,805
16	-	-$10,148	-	$16,708	-	$6,560	-$35,245
17	-	-$3,036	-	$17,449	-	$14,413	-$20,832
18	-	-$3,127	-	$18,221	-	$15,094	-$5,738
19	-	-$3,221	-	$19,028	-	$15,807	$10,069
20	-	-$3,318	-	$19,870	-	$16,552	$26,621
21	-	-$3,417	-	$20,748	-	$17,331	$43,951
22	-	-$3,520	-	$21,664	-	$18,145	$62,096
23	-	-$3,625	-	$22,620	-	$18,995	$81,091
24	-	-$3,734	-	$23,618	-	$19,884	$100,975
25	-	-$3,846	-	$24,659	-	$20,813	$121,788
26	-	-$3,961	-	$25,745	-	$21,783	$143,571
27	-	-$4,080	-	$26,877	-	$22,797	$166,368
28	-	-$4,203	-	$28,059	-	$23,856	$190,224
29	-	-$4,329	-	$29,292	-	$24,963	$215,187
30	-	-$4,459	-	$30,577	-	$26,119	$241,306
Totals:	-$630,982	-$97,213	$254,994	$525,211	$189,295	$241,306	-

White Rock and Bloomfield

GENERAL INFORMATION

Facility: White Rock and Bloomfield
Address: Verona NJ

SOLAR PV SYSTEM RATING

Power Rating: 183,700 W-DC
Power Rating: 60,000.0 W-AC

SOLAR PV EQUIPMENT DESCRIPTION

Solar Panels: (334) ZNShine Solar ZXM7-SHDB144-550 (2022)
Inverters: (1) Sungrow SG60CX-US

ENERGY CONSUMPTION MIX

Annual Energy Use: 121,360 kWh

Utility -35,023 kWh (0.00%)
Solar PV 156,383 kWh (100.00%)

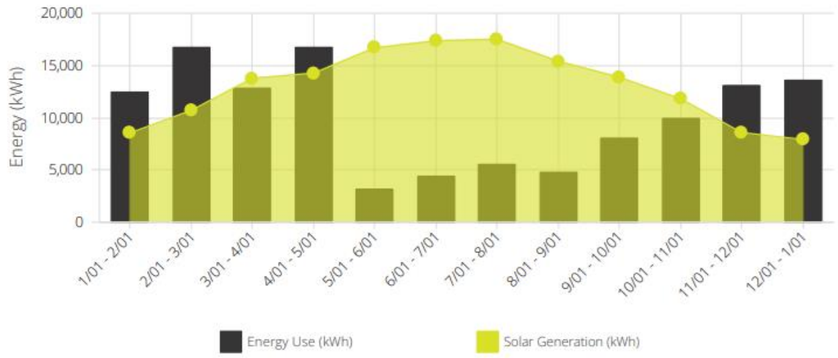
SOLAR PV EQUIPMENT TYPICAL LIFESPAN

Solar Panels: Greater than 30 Years
Inverters: 15 Years

Solar PV System Cost and Incentives

Solar PV System Cost	$935,803
Federal Tax Credit	-$280,741
NJ TREC	-$344,071
Roof - ITC	-$108,728
Net Solar PV System Cost	**$202,263**

MONTHLY ENERGY USE VS SOLAR GENERATION



Assumptions and Key Financial Metrics

IRR - Term	3.6%	Net Present Value	($88,793)	Payback Period	16.4 Years
ROI	37.1%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	5.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	5.5%
Total Project Costs	$935,803				

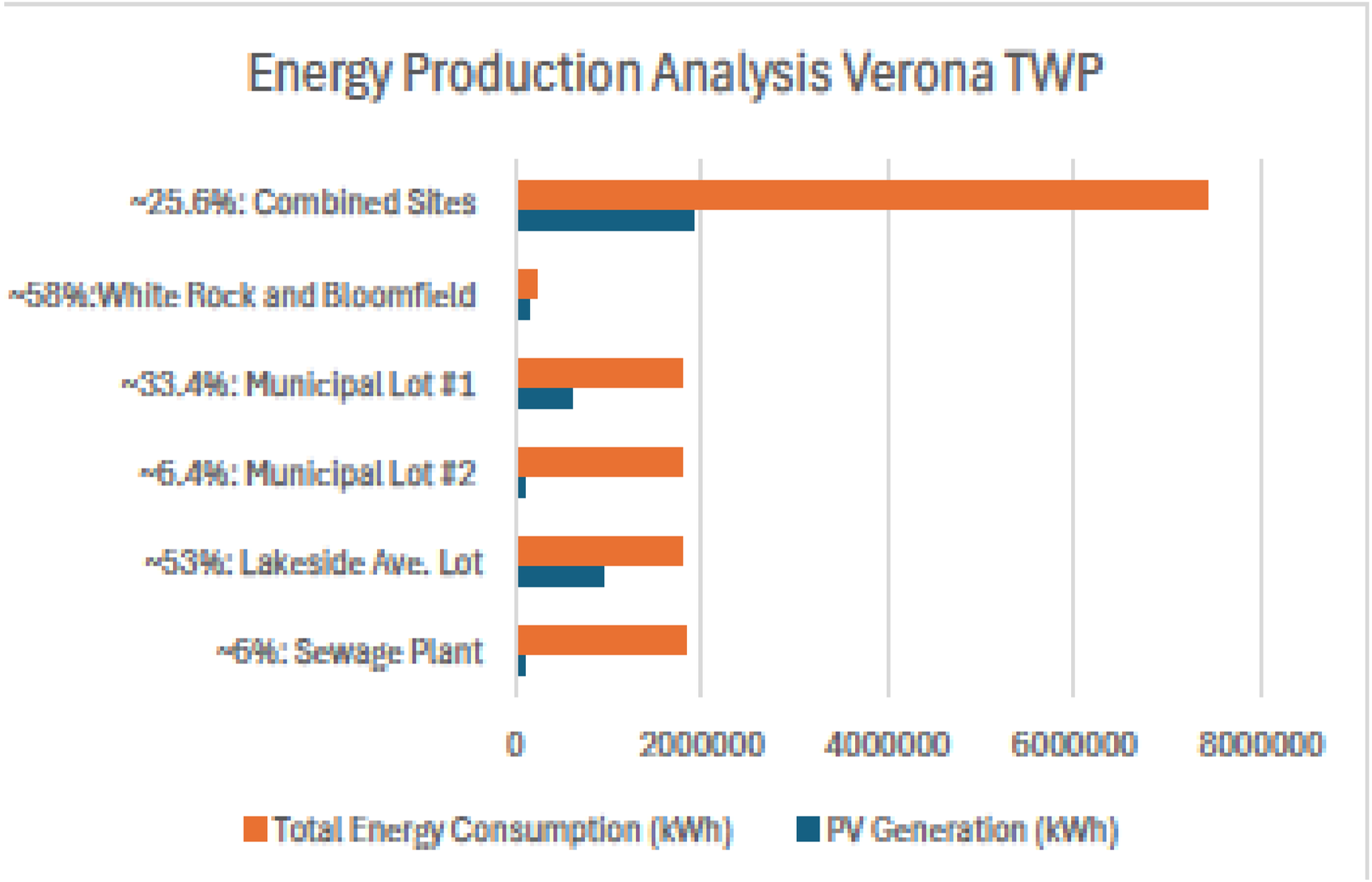
Years	Project Costs	O&M / Equipment Replacement	NJ TREC	Electric Bill Savings	Federal Tax Effect	Total Cash Flow	Cumulative Cash Flow
Upfront	-$935,803	-	-	-	-	-$935,803	-$935,803
1	-	-$3,674	$23,770	$12,040	$389,469	$421,605	-$514,198
2	-	-$3,784	$23,651	$12,579	-	$32,446	-$481,752
3	-	-$3,898	$23,532	$13,142	-	$32,776	-$448,976
4	-	-$4,015	$23,413	$13,729	-	$33,128	-$415,848
5	-	-$4,135	$23,295	$14,342	-	$33,502	-$382,346
6	-	-$4,259	$23,176	$14,983	-	$33,899	-$348,447
7	-	-$4,387	$23,057	$15,651	-	$34,321	-$314,126
8	-	-$4,519	$22,938	$16,349	-	$34,768	-$279,358
9	-	-$4,654	$22,819	$17,077	-	$35,242	-$244,115
10	-	-$4,794	$22,700	$17,838	-	$35,744	-$208,371
11	-	-$4,938	$22,582	$18,632	-	$36,276	-$172,095
12	-	-$5,086	$22,463	$19,460	-	$36,837	-$135,258
13	-	-$5,238	$22,344	$20,325	-	$37,431	-$97,827
14	-	-$5,395	$22,225	$21,228	-	$38,057	-$59,770
15	-	-$5,557	$22,106	$22,170	-	$38,719	-$21,051
16	-	-$9,324	-	$23,153	-	$13,829	-$7,221
17	-	-$5,896	-	$24,180	-	$18,284	$11,063
18	-	-$6,073	-	$25,251	-	$19,178	$30,241
19	-	-$6,255	-	$26,368	-	$20,114	$50,354
20	-	-$6,442	-	$27,535	-	$21,092	$71,446
21	-	-$6,636	-	$28,752	-	$22,116	$93,562
22	-	-$6,835	-	$30,021	-	$23,187	$116,749
23	-	-$7,040	-	$31,346	-	$24,307	$141,056
24	-	-$7,251	-	$32,729	-	$25,478	$166,534
25	-	-$7,468	-	$34,171	-	$26,703	$193,236
26	-	-$7,693	-	$35,676	-	$27,983	$221,220
27	-	-$7,923	-	$37,246	-	$29,322	$250,542
28	-	-$8,161	-	$38,883	-	$30,722	$281,264
29	-	-$8,406	-	$40,591	-	$32,185	$313,449
30	-	-$8,658	-	$42,373	-	$33,715	$347,164
Totals:	-$935,803	-$178,392	$344,071	$727,819	$389,469	$347,164	-

$7,005,464

IN AVAILABLE DIRECT PAY INCENTIVES

2 Mega Watt PV System for Verona Township

Energy Production Analysis Verona TWP



Environmental Impact

Carbon Saved

38,326 Tons of Carbon Saved

Miles Driven

103,473,784 Miles Saved on the Road

Trees Planted

682,407 Trees Planted

PSEG Program

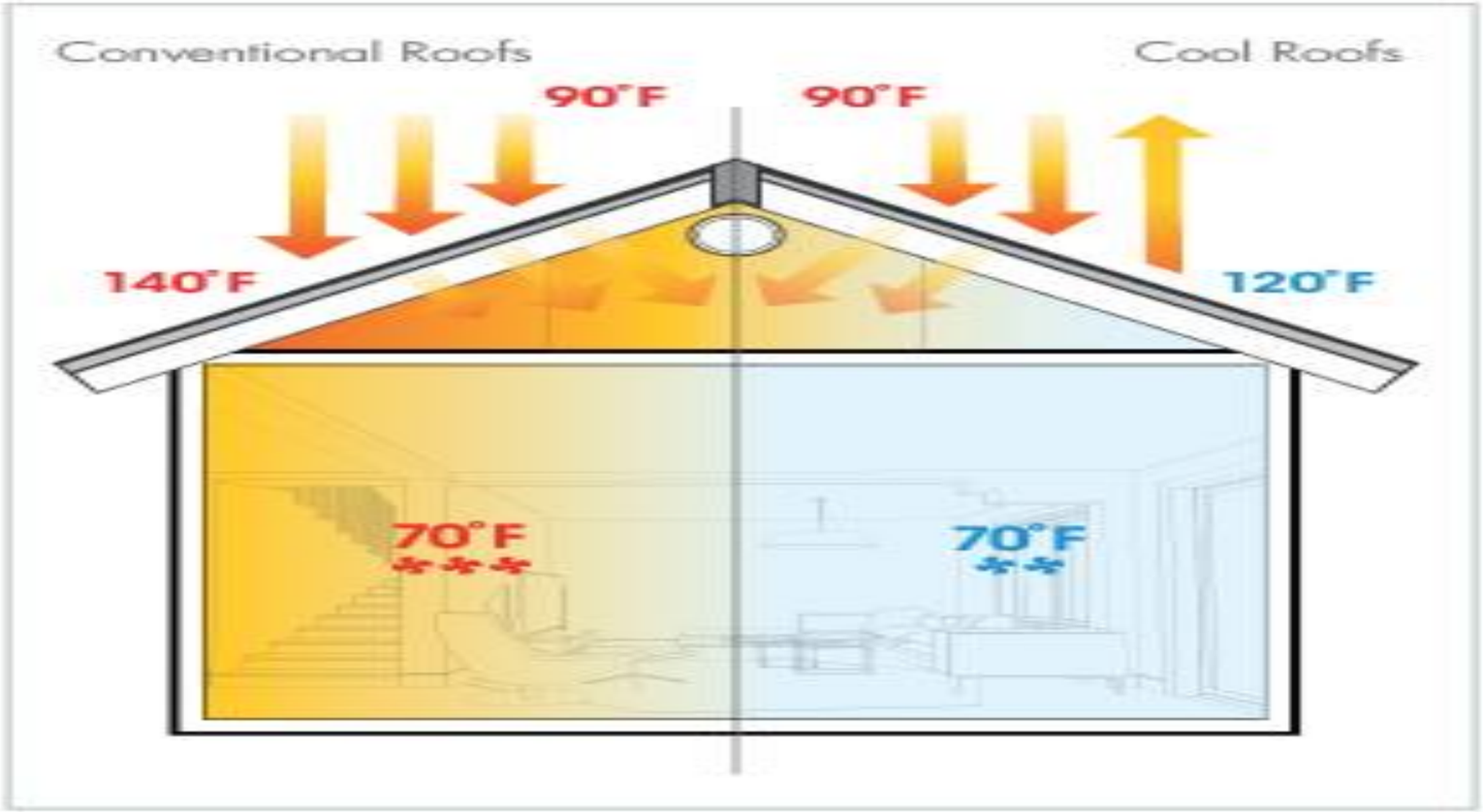
Aggregated Net Metering Program

- Key to Project Success
- Can offset savings from multiple locations
- No Minimum System Requirements
- No Maximum System Size
- Current Status: Undergoing Revisions (Original Deadline Was June ’24)
- Waste Water Treatment Plant Rooftop
- White Rock & Bloomfield Parking Lot and Rooftops

Total Solar Capacity: 1,625 kWdc (2,955 solar panels)

Total Solar Generation Potential: 2,001,375 kWh in Year 1

New Jersey Based Corporation



Thanks to the reflective nature of Timberline® Cool Series® Shingles, part of the heat radiating from the sun gets reflected, helping to reduce the heat in the attic and heat going into the house. It may translate into savings on air-conditioning bills.*

GAF®
GAF MATERIALS CORPORATION

MECHANICALLY ATTACHED TPO ASSEMBLY PLATE

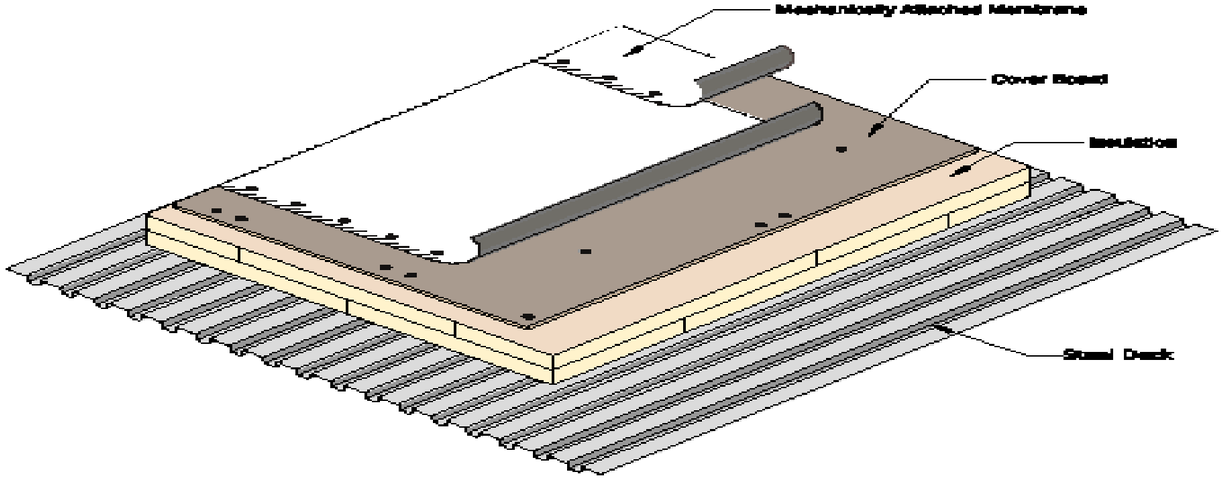
Assembly Identification

Membrane Thickness
4 = 45 mil (1.14 mm)
6 = 60 mil (1.51 mm)
8 = 80 mil (2.03 mm)

S = Single Ply → **ST6RM**
TPO Membrane

Membrane Type
R = Reinforced
P = Polyester Fleece Backed

Attachment
M = Mechanically Attached
R = RhinoPlate Attached



For JM Guarantee Requirements Contact JM Technical Services at (800) 922-6822 Option 3 or Refer to the JM Peak Advantage Changes and Requirements-Single Ply document

TPO Membrane and Specification Number:
- ☐ 45 mil - ST4RM
- ☒ 60 mil - ST6RM
- ☐ 80 mil - ST8RM
- ☐ FB 115™ - ST6PM
- ☐ FB 135™ - ST8PM
- ☐ 60 mil - ST6RR (RhinoPlate)
- ☐ 80 mil - ST8RR (RhinoPlate)

Separation Layer: (Re-cover only)
(If Applicable)
- ☐ JM 3 oz Polyester Slipsheet

Approved JM Insulations:
- ☐ ENERGY 3®
  (ENRGY 3 Options)
  - ☐ CGF
  - ☐ FR
  - ☐ 30 PSI
  - ☐ 25 PSI
  - ☐ Tapered
  - Layer 1 Thickness _____
  - Layer 2 Thickness _____
  - Layer 3 Thickness _____

Approved Cover Boards: (If Applicable)
- ☐ RetroPlus™ Roof Board
- JM DEXCELL®
  - ☐ FA Glass-Mat Roof Board
  - ☐ Glass-Mat Roof Board
- JM SECUROCK®
  - ☐ Gypsum-Fiber Roof Board
  - ☐ Glass-Mat Roof Board
- ☐ JM DensDeck® Roof Board
- ☐ JM DensDeck® Prime Roof Board
- ☐ ProtectoR™ HD Cover Board
- ☐ SeparatoR® CGF Recover Board
- ☐ SeparatoR® Recover Board
  Cover Board Thickness _____

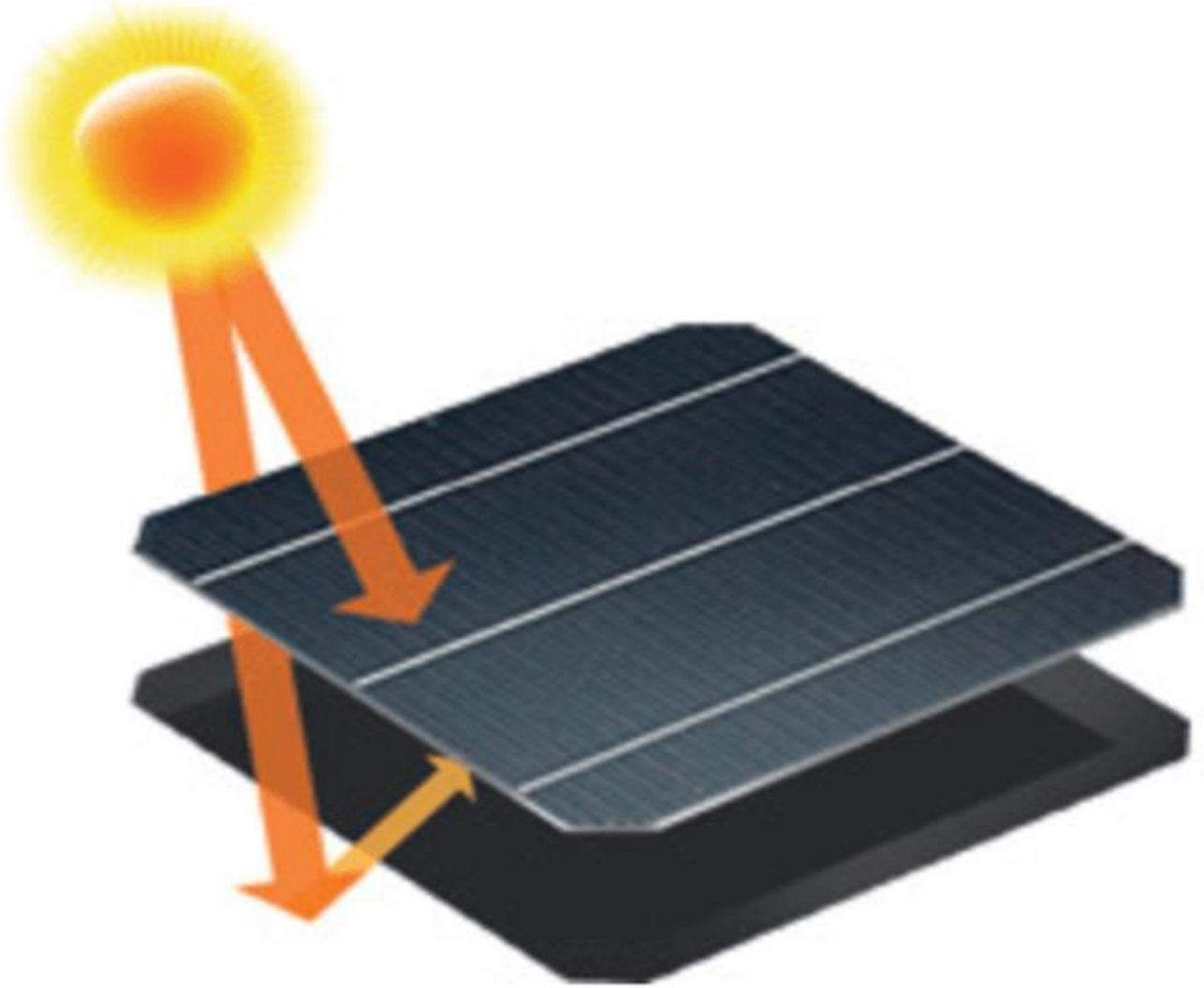
Approved Thermal Barrier:
(If Applicable)
- JM SECUROCK®
  - ☐ Gypsum-Fiber Roof Board
  - ☐ Glass-Mat Roof Board
- JM DEXCELL
  - ☐ FA Glass-Mat Roof Board
  - ☐ Glass-Mat Roof Board
- ☐ JM DensDeck® Roof Board
- ☐ JM DensDeck Prime Roof Board
- ☐ JM ProtectoR HD
  Thermal Barrier Thickness _____

Approved Vapor Barrier:
(If Applicable)
- ☐ DynaBase®(CA) (HA)
- ☐ DynaBase PR (CA) (HA)
- ☐ EliePly™ (HA)
- ☐ GlasPly Premier (HA)
- ☐ APPeX™ 4S (HW)
- ☐ DynaWeld™ Base (HW)
- ☐ DynaGlass HW (HW)
- ☐ DynaWeld 160 S (HW)
- ☐ JM APP™ Base Sheet (HW)
- ☐ DynaGrip™ Base SD/SA (SA)
- ☐ JM BaseGrip™ SD/SA (SA)
- ☐ JM Vapor Barrier SA (SA)
- ☐ 6 or 10 mil poly
  with taped seams

Deck Type:
- ☐ Existing Roof (re-cover)
- ☐ Standing Seam
- ☐ Steel (22 Ga. Min.)
- ☐ Structural Concrete
- ☐ Nailable Decks Include:
  Wood (Plywood, Plank, OSB)

Vapor Barrier Application Key (CA) Cold Applied (HA) Hot Asphalt (HW) Heat Weld (SA) Self Adhered

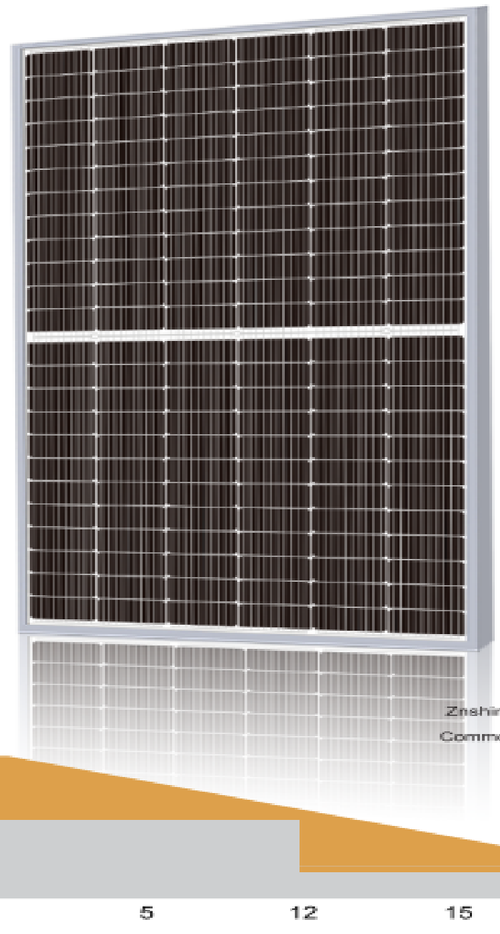
RS-1886 07-22 (Replaces 04-22)



Live data from an eclipse

2,955 Panels

ZNSHINESOLAR



*Please check the valid version of Limited Product Warranty which is officially released by ZNSHINE PV-TECH Co.,Ltd.

ZXM7-SHDB144 Series

10BB HALF-CELL Bifacial Monocrystalline PERC PV Module

530-555W	21.48%	0.55%
POWER RANGE	MAXIMUM EFFICIENCY	YEARLY DEGRADATION

12 12 YEARS PRODUCT WARRANTY

25 25 YEARS OUTPUT GUARANTEE

IEC 61215/IEC 61730/IEC 61701/IEC 62716/UL6 1730

ISO 14001: Environmental Management System

ISO 9001: Quality Management System

ISO45001: Occupational Health and Safety Management System

*As there are different certification requirements in different markets,please contact your local znshine sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

20 Sungrow Invertors with Tigo Rapid Shutdown

SG60CX-US

String Inverter For North America

SUNGROW
Clean power for all

Tigo Enhanced

HIGH YIELD

- 6 MPPTs with max. efficiency 98.9%
- Compatible with bifacial module
- Built-in PID recovery function

LOW COST

- DC/AC ratio greater than 1.5
- Compatible with Al and Cu AC cables
- Flexible installation from vertical to horizontal

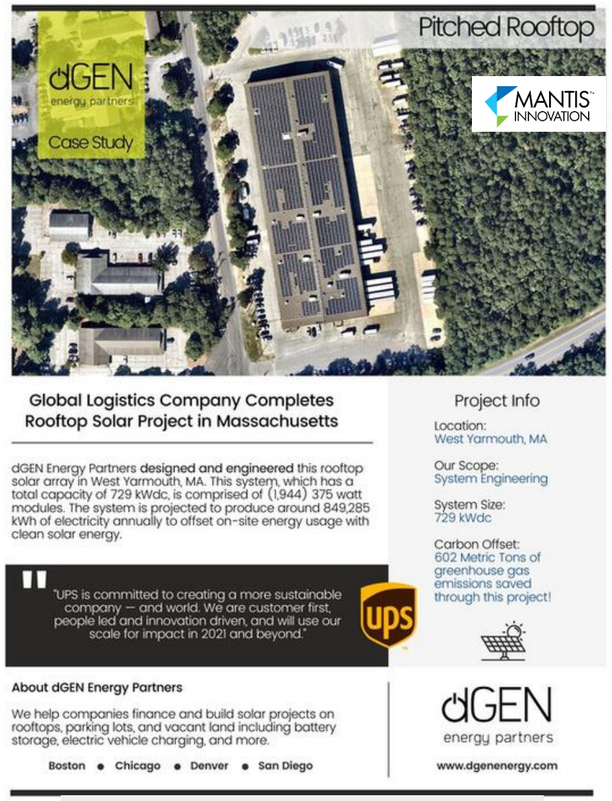
SMART O&M

- Touch-free commissioning and remote firmware upgrade
- Online IV curve scan and diagnosis
- Fuse free design with smart string current monitoring

PROVEN SAFETY

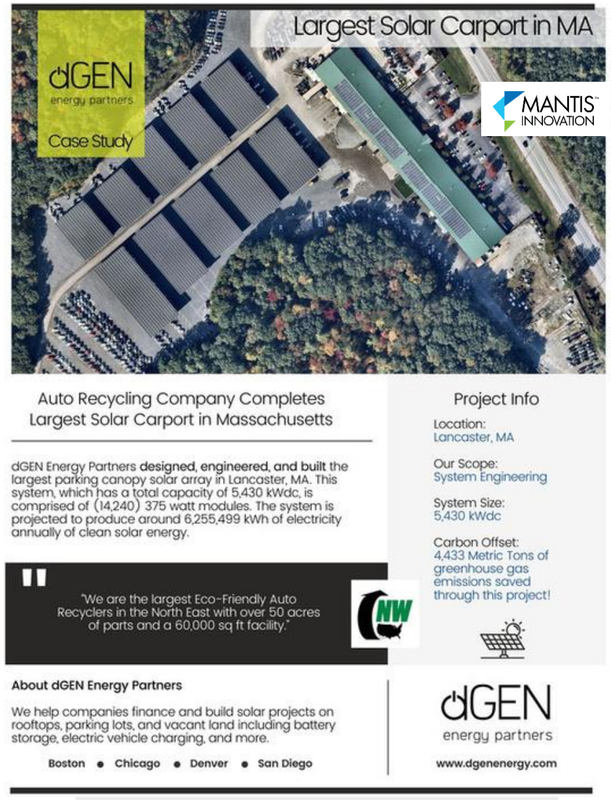
- NEMA 4X and C5 protection
- Type II SPD for both DC and AC
- Compliant with UL safety and grid code
- Tigo Enhanced for Rapid Shutdown

Successful Projects



PITCHED ROOFTOP

FLAT ROOFTOP



PARKING CANOPY

Vineland New Jersey

-Largest Solar Array for a Glass Manufacture In the world

-3 Mega Watts

-ROI in 7 Years

-Hurricane Sandy hit this project with no damage.

-Current day this would be 10 Mega Watts.

-No Power Interruption at all during installation

Continued success in New Jersey

Successful Projects

- **Sprague Street, Dedham, MA** - 1.2MW
- **Pavafersa Solar, Spain** - Power generation solar farm(Ground Mounts) 15MW
- **647 Summer Street, Boston** - MA 2.7MW
- **Deptford Schools, NJ** - 3MW
- **Boll Solar, Johnstown, NY** – Community Solar 7MW
- **UPS 2020-2021 Portfolio – NY, MA, NJ, AZ, CA,IL, PR** - 30MW w/ 12MWh Storage
- **Cuisinart Anguilla Resort, Anguilla** - 1MW w/ 1MWh Storage & 2 500kW diesel generators (Off Grid system)
- **Saudi Arabia** - 4MW (7th World record lowest bid)
- **Masy Bio Services, Pepperell, MA** - (Carports) 560kW
- **Gersheimmer Glass, NJ** - 3MW
- **AES, Puerto Rico** - 24MW
- **AES- El Salvador** - 10MW (Ground Mount)