

Indian Grove Elementary Solar

Prepared For

Euclid Elementary Ryan Berry 224-612-7302 solarRFP@naniaenergy.com



93Energy provides turnkey commercial solar installation services in Illinois and across the country. Our team of industry-certified professionals will design and install your system with the utmost care and professionalism. We earn our high customer ratings and referrals.

<u>Proposal By</u>

Rob Zaldivar Vice President of Sales 773.797.4183 rzaldivar@93energy.com <u>Date</u>

1/10/2025



About 93Energy

Founded in 2018, 93Energy is a national leader for turn-key Solar and Energy Storage solutions. Our offices, based in the Chicagoland area, provide Design + Build services for commercial customers that are looking to achieve energy savings and independence through renewable energy technology. Our goal is simple:

People. Planet. Passion.

People: 93Energy is committed to supporting ALL of the people we work with: from customers, to employees, to subcontractors. We've built a team of talented individuals who can help our clients achieve their renewable energy future.

Planet: Our aim is to collectively leave the planet in a better state than it was in before we arrived. At 93Energy, we are environmentalists at heart, but we also understand that renewable solutions also need to be financially viable.

Passion: Our passion and dedication show through every interaction and in every aspect of our work. We are passionate about our work, and we're excited to work with you.

93Energy was born out of our parent company, Renovations Delivered. RD incorporated in 2010, and is a regional general contracting company focused on the multi-family and hospitality industry. The founders of RD and 93E, collectively, bring over 50 years of industry experience in market-rate and affordable real estate development, as well as commercial and residential construction.

93Energy continues the tradition of delivering projects on time, on budget, and with a high degree of integrity. We are excited about our clean energy future and we're eager to partner with your organization!



(Maxter Healthcare, Rosharon, TX - 3 MW)



Project Summary

Payment Options	Cash Purchase
IRR - Term	17.3%
LCOE PV Generation	\$0.003 /kWh
Net Present Value	\$485,597
Payback Period	4.4 Years
Total Payments	\$570,000
Total Incentives	\$543,318
Net Payments	\$26,682
Electric Bill Savings - Term	\$1,189,634
Upfront Payment	\$570,000

Combined Solar PV Rating

Power Rating: 270,050 W-DC Power Rating: 265,999 W-AC-CEC



Cumulative Energy Costs By Payment Option



PV System Details

General Information

Facility:Indian Grove ElementaryAddress:1340 N Burning Bush Ln Mt Prospect IL 60056

Solar PV Equipment Description

Solar(491) Vikram Solar VSMDH.72.550.05Inverters:(4) Chint Power Systems America SCA50KTL-DO/US-
480

Solar PV Equipment Typical Lifespan

Solar Panels:Greater than 30 YearsInverters:15 Years

Solar PV System Cost and Incentives

	+04.400
Illinois ABP Incentive	-\$247,805
SMART Inverter Rebate	-\$67,513
Direct Pay ITC	-\$228,000
Solar PV System Cost	\$570,000

Net Solar PV System Cost \$26,682

80,000 60,000 Energy (kWh) 40,000 20,000 5107-6107 2107-3107 3107-4107 4107-5101 7107-8107 8101-9101 0 0101-10101 6101-7101 107-201 101 1101 1201 101 Energy Use (kWh) Solar Generation (kWh)

Monthly Energy Use vs Solar Generation



Solar PV System Rating

Power Rating: 270,050 W-DC Power Rating: 265,999 W-AC-CEC

Energy Consumption Mix

Annual Energy Use: 515,000 kWh



Rebates and Incentives

This section summarizes all incentives available for this project. The actual rebate and incentive amounts for this project are shown in each example.

Direct Pay, Investment Tax Credit (ITC) - 30% (with Adders)

The Inflation Reduction Act (IRA) of 2022 contains a "direct pay" provision that enables certain tax-exempt customers, including state and local government, to receive a direct cash payment in lieu of an investment tax credit (ITC). Entities that qualify for direct pay are eligible to receive a 30% direct payment, assuming they meet the IRA established prevailing wage and apprenticeship requirements in order to qualify for the full 30% "increased rate", rather than a 6% "base rate". The IRA states that direct pay is only available for entities, including: an entity exempt from the tax, any State government (or political subdivision thereof), the Tennessee Valley Authority, an Indian tribal government, an Alaska Native Corporation, any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas. These entities may take direct pay for solar and storage in the ITC and PTC as well as the ITC/PTC when tech neutral starts after 2025. In addition to the 30% ITC, the IRA establishes three different types of ITC "Adders", which provide additional tax credits of up to 10% each, for projects that meet specified requirements. (1) Energy Community, projects sited in an "energy community", which includes brownfield sites, census tracts where a coal mine closed after 1999 or a coal-fired power plant was retired after 2009, or areas where 25% of local tax revenues are related to the extraction, processing or storage of coal, oil, or natural gas at any time beginning in 2010. (2) Low-income, projects located in a qualified "low-income community", which is defined as a census tract with a poverty rate of at least 20%, as well as a census tract where the median family income (MFI) is 80% or less of statewide MFI, or on "Indian land", which is defined as land located within the boundaries of an Indian reservation or lands held by a tribe. (3) Domestic Content, for projects that meet specified domestic content requirements which will be set by Treasury, including 100% steel/iron for manufactured products with a 40% requirement through 2024 followed by 45% in 2025, 50% in 2026, and 55% in 2027 and beyond. Manufactured content is further explained: the products which are components of a qualified facility upon completion will be deemed to have been produced in the United States if the adjusted percentage of the total costs of all such manufactured products of the facility are attributable to manufactured products which are mined, produced, or manufactured in the United States.

Total Incentive Value: \$228,000

Illinois Smart Inverter Rebate - 2023

Rebate Applicable to Participating IL Utilities. Customers receiving service under rate schedules DS-1 (Residential) & DS-2 (Small Commercial) the rebate for inverters used to interconnect generators are \$300/KW-PV DC. For Customer receiving service under rate schedules DS-3, DS-4 and DS-6 (Large Commercial & Industrial) the rebate for inverters used to interconnect generators are \$250/KW-PV DC Is available to both customers with existing generation and/or ESS at their home/business and to customers who will be installing that equipment in the future. Applicability For Other Participating Utilities May Not Be Specific to Rate Tariffs. There is a limit of 5mW AC for the rebate application

Total Incentive Value: \$67,513



Illinois ABP Distributed Generation (DG) - 2023

Illinois Shines is the brand name of the Illinois Adjustable Block Program (ABP), a state-administered program for new solar photovoltaic systems. The ABP Distributed Generation (DG) program provides payments in exchange for 15 years of Renewable Energy Credits ("RECs") generated by new PV systems. These payments, made by Illinois utilities, vary depending on the system's size and where it is located. Participating in Illinois Shines is the same thing as participating in the Adjustable Block Program. RECs represent the environmental value of the electricity generated from solar panels, but not the electricity itself. Whoever owns the RECs has the right to say they used that solar power. Utilities must purchase RECs to meet their obligation to supply a certain amount of power from renewable energy.

Total Incentive Value: \$247,805



Utility Rates

The table below shows the rates associated with your current utility rate schedule (Small Load). Your estimated electric bills after solar are shown on the following page.

	Customer Charges				Energy Charges			Demand Charges			
Season	Charge Type	Rate Type	Small Load	Season	Charge Type	Rate Type	Small Load	Season	Charge Type	Rate Type	Small Load
S	Flat Rate	per billing period	\$26.17	S	Flat Rate	Import	\$0.02483	S	On Peak	Import	\$11.87
W	Flat Rate	per billing period	\$26.17	W	Flat Rate	Import	\$0.02288	W	On Peak	Import	\$11.87
S	Flat Rate: Charges Vary With Units	per billing period	\$1.00	S	Flat Rate	Import	\$0.0729				
W	Flat Rate: Charges Vary With Units	per billing period	\$1.00	W	Flat Rate	Import	\$0.0729				
S	Flat Rate: Charges Vary With Units	per billing period	\$1.00	S	T < 2,000 kw	Import	\$0.0033				
W	Flat Rate: Charges Vary With Units	per billing period	\$1.00	S	2,000 kw < T < 50,000 kw	Import	\$0.00319				
				S	50,000 kw < T	Import	\$0.00303				
				W	T < 2,000 kw	Import	\$0.0033				
				W	2,000 kw < T < 50,000 kw	Import	\$0.00319				
				W	50,000 kw < T	Import	\$0.00303				

Current Electric Bill

The table below shows your estimated annual electricity costs based on the most current utility rates and your previous 12 months of electrical usage.

Rate Schedule: ComEd - Small Load

Time Periods	Energy Use (kWh)	Max Demand (kW)	Charges					
Bill Ranges & Seasons	Total	On Peak	Other	NBC	Energy	Demand	Total	
1/1/2023 - 2/1/2023 W	37,000	150	\$96	\$0	\$3,662	\$1,781	\$5,539	
2/1/2023 - 3/1/2023 W	37,000	150	\$96	\$0	\$3,662	\$1,781	\$5,539	
3/1/2023 - 4/1/2023 W	34,000	150	\$96	\$0	\$3,365	\$1,781	\$5,242	
4/1/2023 - 5/1/2023 W	37,000	150	\$96	\$0	\$3,662	\$1,781	\$5,539	
5/1/2023 - 6/1/2023 W	45,000	117	\$96	\$0	\$4,454	\$1,389	\$5,939	
6/1/2023 - 7/1/2023 S	51,000	150	\$96	\$0	\$5,147	\$1,781	\$7,024	
7/1/2023 - 8/1/2023 S	51,000	150	\$96	\$0	\$5,147	\$1,781	\$7,024	
8/1/2023 - 9/1/2023 S	67,000	150	\$96	\$0	\$6,759	\$1,781	\$8,636	
9/1/2023 - 10/1/2023 S	47,000	150	\$96	\$0	\$4,743	\$1,781	\$6,620	
10/1/2023 - 11/1/2023 W	35,000	150	\$96	\$0	\$3,464	\$1,781	\$5,341	
11/1/2023 - 12/1/2023 W	36,000	150	\$96	\$0	\$3,563	\$1,781	\$5,440	
12/1/2023 - 1/1/2024 W	38,000	150	\$96	\$0	\$3,761	\$1,781	\$5,638	
Total	515,000	-	\$1,154	-	\$51,390	\$20,974	\$73,519	



Rate Schedule: ComEd - Small Load

Time Periods	Energy Use (kWh)	Max Demand (kW)	Charges					
Bill Ranges & Seasons	Total	On Peak	Other	NBC	Energy	Demand	Total	
1/1/2023 - 2/1/2023 W	25,453	141	\$96	\$0	\$2,565	\$1,674	\$4,335	
2/1/2023 - 3/1/2023 W	19,785	132	\$96	\$0	\$2,073	\$1,567	\$3,736	
3/1/2023 - 4/1/2023 W	8,929	85	\$96	\$0	\$1,129	\$1,009	\$2,234	
4/1/2023 - 5/1/2023 W	6,137	83	\$96	\$0	\$963	\$985	\$2,045	
5/1/2023 - 6/1/2023 W	10,064	79	\$96	\$0	\$1,344	\$938	\$2,378	
6/1/2023 - 7/1/2023 S	12,684	109	\$96	\$0	\$1,603	\$1,294	\$2,993	
7/1/2023 - 8/1/2023 S	12,250	120	\$96	\$0	\$1,620	\$1,424	\$3,141	
8/1/2023 - 9/1/2023 S	31,973	144	\$96	\$0	\$3,465	\$1,709	\$5,270	
9/1/2023 - 10/1/2023 S	18,845	124	\$96	\$0	\$2,166	\$1,472	\$3,734	
10/1/2023 - 11/1/2023 W	15,019	110	\$96	\$0	\$1,668	\$1,306	\$3,070	
11/1/2023 - 12/1/2023 W	24,048	110	\$96	\$0	\$2,451	\$1,306	\$3,853	
12/1/2023 - 1/1/2024 W	29,700	149	\$96	\$0	\$2,994	\$1,769	\$4,859	
Total	214,887	-	\$1,154	-	\$24,043	\$16,452	\$41,649	

Annual Electricity Savings: \$31,870



Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	17.3%	Net Present Value	\$485,597	Payback Period	4.4 Years
ROI	204.0%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
Total Project Costs	\$570,000				

			THO					
Years	Project Costs	Electric Bill Savings	Direct Pay ITC	SMART Inverter Rebate	Illinois ABP Incentive	Total Cash Flow	Cumulative Cash Flow	
Upfront	-\$570,000	-	-	-	-	-\$570,000	-\$570,000	
1	-	\$31,870	\$228,000	\$67,513	-	\$327,382	-\$242,618	
2	-	\$32,345	-	-	\$39,006	\$71,351	-\$171,266	
3	-	\$32,826	-	-	\$39,006	\$71,832	-\$99,434	
4	-	\$33,313	-	-	\$39,006	\$72,320	-\$27,114	
5	-	\$33,807	-	-	\$39,006	\$72,813	\$45,699	
6	-	\$34,307	-	-	\$39,006	\$73,314	\$119,013	
7	-	\$34,814	-	-	\$39,006	\$73,820	\$192,833	
8	-	\$35,327	-	-	-	\$35,327	\$228,161	
9	-	\$35,847	-	-	-	\$35,847	\$264,008	
10	-	\$36,374	-	-	-	\$36,374	\$300,381	
11	-	\$36,907	-	-	-	\$36,907	\$337,288	
12	-	\$37,447	-	-	-	\$37,447	\$374,735	
13	-	\$37,994	-	-	-	\$37,994	\$412,729	
14	-	\$38,547	-	-	-	\$38,547	\$451,276	
15	-	\$39,108	-	-	\$13,767	\$52,875	\$504,151	
16	-	\$39,676	-	-	-	\$39,676	\$543,827	
17	-	\$40,251	-	-	-	\$40,251	\$584,078	
18	-	\$40,832	-	-	-	\$40,832	\$624,910	
19	-	\$41,422	-	-	-	\$41,422	\$666,332	
20	-	\$42,018	-	-	-	\$42,018	\$708,349	
21	-	\$42,621	-	-	-	\$42,621	\$750,971	
22	-	\$43,232	-	-	-	\$43,232	\$794,203	
23	-	\$43,851	-	-	-	\$43,851	\$838,054	
24	-	\$44,476	-	-	-	\$44,476	\$882,530	
25	-	\$45,110	-	-	-	\$45,110	\$927,640	
26	-	\$45,750	-	-	-	\$45,750	\$973,390	
27	-	\$46,399	-	-	-	\$46,399	\$1,019,789	
28	-	\$47,055	-	-	-	\$47,055	\$1,066,843	
29	-	\$47,718	-	-	-	\$47,718	\$1,114,561	
30	-	\$48,390	-	-	-	\$48,390	\$1,162,951	
Totals:	-\$570,000	\$1,189,634	\$228,000	\$67,513	\$247,805	\$1,162,951	-	



Module Data Sheet

MAXIMUM EFFICIENCY %

21.87



540-565W

CELL TYPE

M10 ##



MODEL: PARADEA VSMDH.72.AAA.05

SUBSTRATE

PRODUCT WARRANTY

VEARS

SILVER O

STEEL
BI

PERFORMANCE WARRANTY

FARS

FRAME TYPE

ALUMINIUM .



PVEL TOP PERFORMER MODEL

 Benchmarked for highest standards of long-term module reliability and performance



OPTIMIZED FRAME DESIGN

- Anodized aluminium frame with twin wall structure for higher strength
- Packaging capacity improved with more modules per container



RELIABILITY IS IMPROVED

- Higher corrosion resistance to severe conditions of sand dust, concentrated ammonia and salt mist
- · Low risk of module warping & micro cracking

LOWER LCOE

- Lower balance of systems cost
- Improves value proposition of the product with competitive ROI

SUPERIOR HAIL TEST PERFORMANCE



 Ø 45mm hail test passed from third party laboratory with impact velocity up to 27m/s

PRODUCT CERTIFICATES

SYSTEM CERTIFICATES

IEC 61701, IEC 62716, IEC 60068-2-68, IS/IEC 61730, CAN-CSA INTERNATIONAL ORGANIZATION FOR STANDARDIZATION:

- ISO 9001:2015/ Quality Management System
- ISO 14001:2015/ Environmental Management System
 ISO 45001:2018/ Occupational Health and Safety Management System
- SA 8000 :2014/ Social Accountability International



Mbb, M10 Half-Cell

Bitacial.

Modules.

2

Solar

panelclaw[®]

clawFR plus[™]

FLAT ROOF RACKING SPECIALISTS

PanelClaw is the only major racking provider in North America focused exclusively on flat roofs. This specialization provides a competitive advantage for our partners. No one knows more about flat roof racking than PanelClaw; no one delivers a more thoroughly tested and reliable platform; and no one matches our level of service. Our mission is to accelerate the deployment of flat roof PV by continually lowering its life-cycle cost while maintaining the highest levels of reliability. The clawFRplus platform is the result of a 15+ year commitment to flat roof.



ENGINEERED FOR SPEED

- Single M6 bolt hardware kit
- No-tool module attachment
- 11" plus access ways between modules
- 90 degree single-module tilt-up
- Flexible order of operations installation process allows for optimized coordination of building trades on the roof
- · Integrated roof protection pads
- One ground lug required per array

