



**SOLAR ENERGY**  
Solutions

November 17, 2025

# Proposal

For: Bexley Police Station RFQ

**Parking Canopy Installation**

559 N. Cassingham Road, Bexley, Ohio 43209



Solar Energy Solutions (SES) is one of the region's largest and most experienced solar design, engineering, and construction firms, serving Indiana, Kentucky, Ohio, Virginia, and surrounding states. Founded in Kentucky in 2006, Solar Energy Solutions has more than 3,000 active photovoltaic and battery storage projects in the residential, commercial and utility sectors.

Presented by:

**Julie Jones**

Commercial Dev Specialist

513-477-5814

Julie@sesre.com

www.sesre.com



Page Intentionally Left  
Blank



# SOLAR ENERGY SOLUTIONS QUALIFICATIONS

## TABLE OF CONTENTS

### Table of Contents

1. Letter of Transmittal .....	Pages 4–5
2. Addendum A – Standard Response Form .....	Page 6
3. Project Team .....	Pages 7–8
4. Certifications .....	Page 9
5. Project Approach	
a. System Design & Domestic Content Strategy .....	Page 10
b. Structural & Electrical Integration .....	Page 10
c. Full Turnkey Delivery .....	Page 11
d. Quality Assurance & Safety .....	Page 11
6. Feasibility Assessment .....	Pages 15–20
7. Proposed Equipment Specifications	
a. Solar Module Specifications .....	Pages 22–23
b. Carport Engineering & Structural Details .....	Pages 24–26
c. Inverter Specifications .....	Pages 27–30
8. Proposed Financing Structure .....	Page 31
9. Relevant Project Experience .....	Pages 32–37
10. Sample Agreement .....	Pages 38–45
11. Required Information from City .....	Page 46
12. References .....	Page 47
13. Appendices.....	Page 48

# SOLAR ENERGY SOLUTIONS QUALIFICATIONS LETTER OF TRANSMITTAL

**Dear Ms. Ellman,**

Solar Energy Solutions, LLC ("SES") is pleased to submit our Statement of Qualifications for the City of Bexley's Police Department Solar Carport project. We appreciate the opportunity to participate in this important initiative, which aligns closely with our mission to deliver high-impact, community-focused renewable energy infrastructure.

## **Contractor Identification & Corporate Information**

Solar Energy Solutions, LLC

- Main Headquarters: 1038 Brentwood Court, Lexington, KY 40511
  - Phone: 877-312-7456
  - Fax: 866-830-0418
  - Email: [Info@sesre.com](mailto:Info@sesre.com)
- Ohio Office & Warehouse: 2800 E. Kemper Road, Sharonville, OH 45241

## **Authorized Representative**

**Matt Partymiller, Chief Executive Officer**, is the authorized representative authorized to bind Solar Energy Solutions, LLC contractually for this RFQ/RFP and any resulting agreements.

Primary Contact for Proposal Evaluation:

**Julie Jones, Commercial Development Specialist**

2800 E. Kemper Road

Sharonville, OH 45241

Phone: 513-477-5814

Email: [julie@sesre.com](mailto:julie@sesre.com)

## **Acknowledgment of RFQ Appendices**

Solar Energy Solutions hereby acknowledges receipt and review of all appendices included in the City of Bexley's Request for Qualifications, including Addenda A through H.

# SOLAR ENERGY SOLUTIONS QUALIFICATIONS LETTER OF TRANSMITTAL

## Proposal Validity Statement

Solar Energy Solutions affirms that this proposal shall remain valid for a period of ninety (90) days from the date of submission.

## Attestation of Accuracy

By signing below, I attest that all information contained in this submission is true, complete, and correct to the best of my knowledge and belief, and that I am fully authorized to submit this Statement of Qualifications on behalf of Solar Energy Solutions, LLC.

Sincerely,



**Matt Partymiller**

Chief Executive Officer

Solar Energy Solutions, LLC



# SOLAR ENERGY SOLUTIONS QUALIFICATION

## ADDENDUM A

### Addendum A

Additionally, an Excel Sheet was submitted as a separate document in the submission email.

### ADDENDUM A: STANDARD RESPONSE FORM

Please complete the fields below for Site 2 as illustrated in Addendum B. The City understands that these costs are subject to change based on economies of scale, length of conduit runs, site mobilization, etc.

<b>Array Location</b>	<b>Site 2: New Solar Carport - North Row of Existing Parking Lot</b>			
<b>SITE SPECIFIC COSTS</b>				
<b>Material Cost</b> (Itemize all material costs. At a minimum, categories of material cost must include carport, racking, panels, and electric conduit)	<b>Labor and Site Preparation Cost</b>	<b>Total Cost</b> (Sum of material costs and labor and site preparation costs)	<b>Value of Available Incentives</b> (Including domestic material credits)	<b>Net Cost</b> (Total Cost Minus Available Incentives/Credits)
\$169,372.12	\$151,496.24	\$321,268.36	\$128,507.00	\$192,761.36
<b>OUTPUT AND ROI</b>				
<b>Projected Annual kWh Produced</b>	<b>Projected Annual Police Station Consumption Offset (as a %)</b>	<b>Projected Payback Period (In Years)</b>	<b>Projected Annual Cost Savings</b>	
84850	19.72%	14.2	\$52,809.00	
<b>PRODUCT SPECIFICATIONS</b>				
<b>Proposed EV Panel Specifications</b> (Manufacturer, Model #)		<b>Would material components of this site qualify for domestic credits? (Y/N)</b>		
ZNShine Dom Content ZXM7-SHDB144		Yes		

# SOLAR ENERGY SOLUTIONS QUALIFICATION PROJECT TEAM



## **Matt Partymiller, CEO, GM Operations**

Matt is the founder and co-owner of SES. **Since 2006, Matt has directed the day-to-day operations of SES, overseeing engineering, procurement, and installation of all SES systems. Matt holds electrical licenses in multiple jurisdictions and has been NABCEP (North American Board of Certified Energy Practitioners) certified since 2007.** Matt is also actively involved in the solar community. Matt is current President and co-founder of the Kentucky Solar Industries Association. Matt has testified before the Kentucky legislature and the Kentucky Public Service Commission (he has also been active in cases before the Indiana Utility Regulatory Commission and Public Utilities Commission of Ohio). Matt lives in a solar powered home with battery backup and is committed to using 100% clean, renewable power.



## **Frances Lockwood, President**

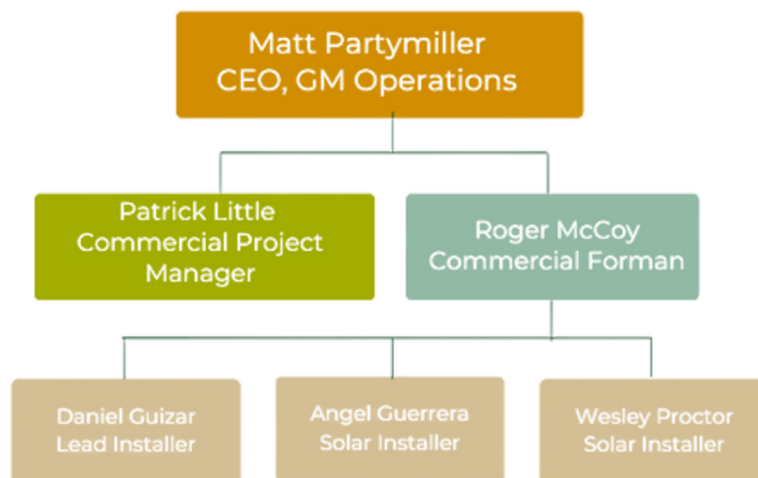
Frances Lockwood, PhD., P.E (Professional Engineer), is the President and majority partner of Solar Energy Solutions. Dr. Lockwood is a chemical engineer with **30 years of experience in the management of R&D, planning, and project management.** Dr. Lockwood takes primary responsibility for bid preparation and project oversight. She is responsible for forming bid teams with subcontractors and for the SES safety program. She maintains financing for SES, chairs monthly meetings, and convenes the SES Advisory Board meetings. Dr. Lockwood has twice been elected as Vice-Chairman of the Kentucky Solar Energy Society.



## **Daniel Young, VP Engineering**

Daniel holds a bachelor's degree in mechanical engineering and an associate degree in renewable energy systems. He has been **designing and installing solar energy systems since 2006(20 years)** and has held NABCEP certification since 2008. He was previously in the role of Senior System Designer at another solar installation company and held that role for 7 years before joining SES. Daniel has had experience designing and installing solar energy systems ranging from small off-grid cabins, up to multi-megawatt utility generation plants.

# SOLAR ENERGY SOLUTIONS QUALIFICATION PROJECT TEAM



## **Patrick Little, Commercial Project Manager**

Mr. Little brings over **12 years of hands-on experience in the construction industry, specializing as an electrician and controls expert.** For the past 6 years, he has successfully led Industrial and Commercial projects as a Project Manager, demonstrating strong leadership and technical acumen across diverse sectors.

His portfolio includes work on hospitals, educational institutions, industrial facilities, and both public and private office buildings. Notable recent projects under his management include the installation of the BNGC Carport, the Wendell H. Ford Carport, and the Frankfort Plant Board's 1.3 MW ground-mounted solar array.

## **Robert McCoy, Commercial Construction Manager**

Mr. McCoy has been **in the construction trade for 30 years.** He has been a Master plumber for 20 years and has extensive experience as a project foreman over the past 15 years. Mr. McCoy's experience includes hospitals, schools, restaurants, and private and public office buildings. **Since 2011, Mr. McCoy has served as the primary industrial Project Manager for Solar Energy Solutions, completing numerous solar projects with a cumulative capacity of over 15MW.** Relevant projects managed by Mr. McCoy include the installation of the Hopkinsville Community College Solar Array, the Wendell H. Ford CHP array, the Energy Services TVA 1 solar array, the Berea Municipal Utility solar array, and numerous others.



# SOLAR ENERGY SOLUTIONS QUALIFICATIONS CERTIFICATIONS

Our staff is highly trained and specialized in the engineering and installation of photovoltaic and battery storage systems. Our focus on expertise and education is reflected in our staff carrying relevant licenses and certifications, including PE licenses, electrical licenses, solar-specific NABCEP certifications, and more. Our commitment extends to creating our solar electrical apprenticeship program, which has been approved by Kentucky, Indiana, Ohio, and Virginia.

Solar Energy Solutions is proud to employ the highest-quality team in our region. We continually strive to improve our skill set and knowledge base. Our certifications and partnerships include:

- 8 NABCEP Certified PV Installers
- 5 Master Electricians
- 1 Certified Professional Engineer
- SEIA Member nationwide and locally
- Tesla Energy Premier Partners
- Solar Edge Certified Partners
- Amicus Member
- SPAN Certified Partner



SES take pride in being an employee-owned company (ESOP), and an active member of Amicus, SEIA, and numerous local and regional energy organizations.



# SOLAR ENERGY SOLUTIONS QUALIFICATIONS

## PROJECT APPROACH

### Project Approach

Solar Energy Solutions (SES) proposes a turnkey installation of a 4-high Genmounts L-Frame carport system at Location #2, as identified in the City's map of potential solar deployment areas and as referenced in the November 3rd Q&A document. Our approach is designed to meet all technical requirements, maximize energy performance, and ensure full compliance with domestic content provisions.

### System Design and Domestic Content Strategy

To achieve domestic content alignment, SES will incorporate the following U.S.-compliant equipment into the project:

- ZNShine 550W domestic-content modules
- SolarEdge inverters and optimizers, meeting domestic content criteria
- Genmounts U.S.-manufactured L-Frame carport structure

This equipment configuration ensures eligibility under prevailing domestic content requirements while also providing high reliability and long-term performance.

### Structural and Electrical Integration

The proposed Genmounts 4-high L-Frame carport will be positioned to optimize solar capture and minimize operational impacts to the site. SES will utilize the layout included in our Helioscope design for this system. Included in the Helioscope report are orientation, spacing, and expected production.

Electrical integration is planned as follows:

- Primary point of interconnection: the main building's meter located on the northeast side of the facility.
- Alternative option: If preferred by the City, SES can revise the design to interconnect at the secondary EV-charger meter. This modification can be incorporated without impact on system performance or schedule.

All electrical work will be completed by SES's licensed electricians in accordance with local codes, utility standards, and NEC requirements.

# SOLAR ENERGY SOLUTIONS QUALIFICATIONS

## PROJECT APPROACH

### Full Turnkey Delivery by SES

SES will self-perform all project phases, ensuring streamlined communication, schedule control, and quality management. Our scope includes:

- Detailed engineering (structural, civil, and electrical)
- Procurement of all equipment and materials
- Submission and management of all permits, including structural and electrical permits
- Complete utility interconnection application and required documentation
- Construction, installation, and commissioning
- Coordination of all inspections and final approvals

SES maintains strong relationships with permitting authorities and utility partners, enabling efficient processing and minimizing delays.

### Quality Assurance & Safety

SES implements a rigorous quality assurance program throughout the design, procurement, and installation phases. All work will be conducted in accordance with SES's safety protocols, OSHA standards, and equipment manufacturer guidelines. Our self-perform model allows full accountability for workmanship and ensures a consistent standard of excellence.

### Deliverables

Upon project completion, SES will provide:

- As-built drawings and engineering documentation
- Manufacturer warranties and SES workmanship warranty
- Commissioning report and system performance verification
- O&M guidelines and monitoring setup

### Proposed Layout

A Helioscope simulation report is included below, illustrating the proposed system design for Location #2. This layout represents the structural configuration, module placement, and estimated energy production assumptions used in our proposal.

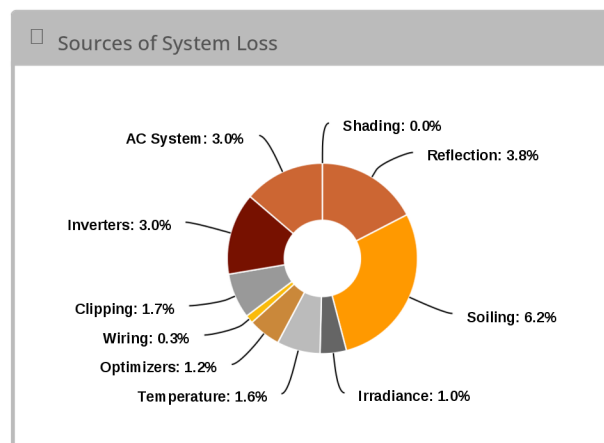
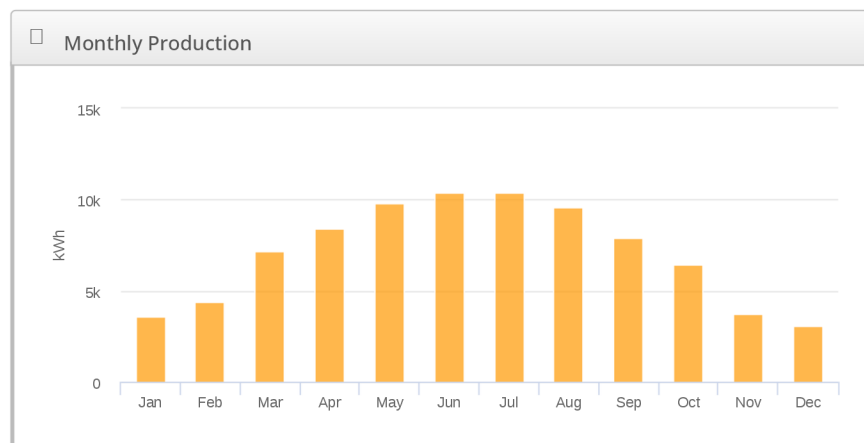
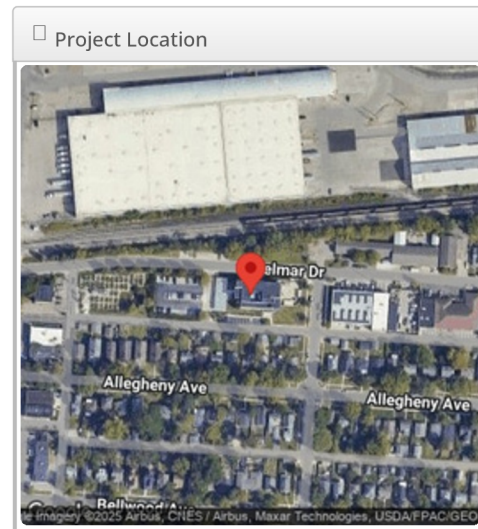


# Carport North Parking Lot, Location #2

Bexley Police Department, 559 N. Cassingham Road, Bexley, Ohio 43209.

Report	
Project Name	Bexley Police Department
Project Address	559 N. Cassingham Road, Bexley, Ohio 43209.
Prepared By	Julie Jones julie@sesre.com

System Metrics	
Design	Carport North Parking Lot, Location #2
Module DC Nameplate	72.60 kW
Inverter AC Nameplate	50.00 kW Load Ratio: 1.45
Annual Production	84.85 MWh
Performance Ratio	80.1%
kWh/kWp	1,168.7
Weather Dataset	TMY, COLUMBUS PORT COLUMBUS INTL A, NSRDB (tmy3, I)
Simulator Version	68034364bf-a0135c5470-972 57921-bdb00e3c98



Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m2)	Annual Global Horizontal Irradiance	1,392.0	
	POA Irradiance	1,459.5	4.9%
	Shaded Irradiance	1,459.5	0.0%
	Irradiance after Re ection	1,404.0	-3.8%
	Irradiance after Soiling	1,316.6	-6.2%
	Total Collector Irradiance	1,316.6	0.0%
Energy (kWh)	Nameplate	95,607.4	
	Output at Irradiance Levels	94,671.1	-1.0%
	Output at Cell Temperature Derate	93,149.0	-1.6%
	Output after Electrical Mismatch	93,148.8	0.0%
	Optimizer Output	92,029.1	-1.2%
	Optimal DC Output	91,747.2	-0.3%
	Constrained DC Output	90,211.8	-1.7%
	Inverter Output	87,473.3	-3.0%
	Energy to Grid	84,849.1	-3.0%
	Temperature Metrics		
Avg. Operating Ambient Temp		13.8 °C	
Avg. Operating Cell Temp		20.7 °C	
Simulation Metrics			
Operating Hours		4559	
Solved Hours		4559	

Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, COLUMBUS PORT COLUMBUS INTL A, NSRDB (tmy3, I)											
Solar Angle Location	Project Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type			a		b		Temperature Delta				
	Fixed Tilt			-3.56		-0.075		3°C				
	Flush Mount			-2.81		-0.0455		0°C				
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	15	10	8	5	5	5	5	5	5	5	8	10
Albedo	J	F	M	A	M	J	J	A	S	O	N	D
	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Rear Mismatch Loss	10%				Rear Shading Factor				5%			
Module Transparency	0%											
Irradiation Variance	3%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	3.00%											
Module & Component Characterizations	Type		Component					Characterization			Bifacial	
	Module		ZXM7-SHDB144-550 (2022) (ZNShine Solar)					Spec Sheet Characterization, PAN			True	
	Buck Boost Optimizer		C651U (for NA use only) (SolarEdge)					Mfg Spec Sheet			N/A	
	Inverter		SE50KUS (SE-TRI-US00IBNS4) - Domestic Content (SolarEdge)								N/A	

Components		
Component Name		Count
Inverters	SE50KUS (SE-TRI-US00IBNS4) - Domestic Content (SolarEdge)	1 (50.00 kW)
Home Runs	6 AWG (Copper)	1 (142.0 ft)
Home Runs	500 MCM (Copper)	1 (13.0 ft)
Combiners	1 input Combiner	1
Combiners	7 input Combiner	1
Strings	10 AWG (Copper)	7 (544.6 ft)
Optimizers	C651U (for NA use only) (SolarEdge)	132 (85.80 kW)
Module	ZNShine Solar, ZXM7-SHDB144-550 (2022) (550W)	132 (72.60 kW)

Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	12	11-21	Along Racking

Field Segments								
Description	Racking Orientation		Tilt Azimuth		Intrarow Spacing	Frame Size	Frames Modules Power	
Field Segment 1	Carport	Portrait (Vertical)	7°	183.2°	0.1 ft	1x1	132	132 72.60 kW

☐ Detailed Layout2





# SOLAR ENERGY SOLUTIONS QUALIFICATIONS **FEASIBILITY ASSESSMENT**

An Energy Tool Base assessment is on the following pages.

# Your Utility Today, Without Solar

Utility Details			Cost Details		
Utility Company	Current Rate Schedule	Utility Escalation Rate	Total Utility Bill	Total Usage (kWh)	Avg blended cost
AEP-OH	GS	4.8%	\$62,978	430,320 kWh	\$0.146 /kWh

## Monthly usage & billing data:

Time Periods		Energy Use (kWh)	Max Demand (kW)		Charges			
Bill Ranges & Seasons		Total	NC / Max	Other	NBC	Energy	Demand	Total
1/1/2025 - 2/1/2025 S1		44,240	85	\$38	\$0	\$4,517	\$1,440	\$5,995
2/1/2025 - 3/1/2025 S1		40,640	91	\$38	\$0	\$4,150	\$1,541	\$5,730
3/1/2025 - 4/1/2025 S1		40,160	89	\$38	\$0	\$4,101	\$1,507	\$5,647
4/1/2025 - 5/1/2025 S1		31,920	70	\$38	\$0	\$3,262	\$1,186	\$4,485
5/1/2025 - 6/1/2025 S1		30,080	87	\$38	\$0	\$3,074	\$1,473	\$4,586
6/1/2025 - 7/1/2025 S1		30,080	87	\$38	\$0	\$3,074	\$1,473	\$4,586
7/1/2025 - 8/1/2025 S1		38,160	118	\$38	\$0	\$3,897	\$1,998	\$5,934
8/1/2025 - 9/1/2025 S1		38,960	115	\$38	\$0	\$3,979	\$1,948	\$5,965
9/1/2025 - 10/1/2025 S1		36,800	108	\$38	\$0	\$3,759	\$1,829	\$5,626
10/1/2025 - 11/1/2025 S1		38,080	86	\$38	\$0	\$3,889	\$1,456	\$5,384
11/1/2024 - 12/1/2024 S1		30,560	81	\$38	\$0	\$3,123	\$1,372	\$4,533
12/1/2024 - 1/1/2025 S1		30,640	79	\$38	\$0	\$3,131	\$1,338	\$4,507
Total		430,320	-	\$459	-	\$43,957	\$18,562	\$62,978

### Your Information

Bexley Police Department  
559 N Cassingham Rd  
Bexley, OH 43209

### About Your Utility

No choice:

Your utility is 100+ year old monopoly, meaning they don't have competition, they have guaranteed profits and you don't have any say.

Rates are rising:

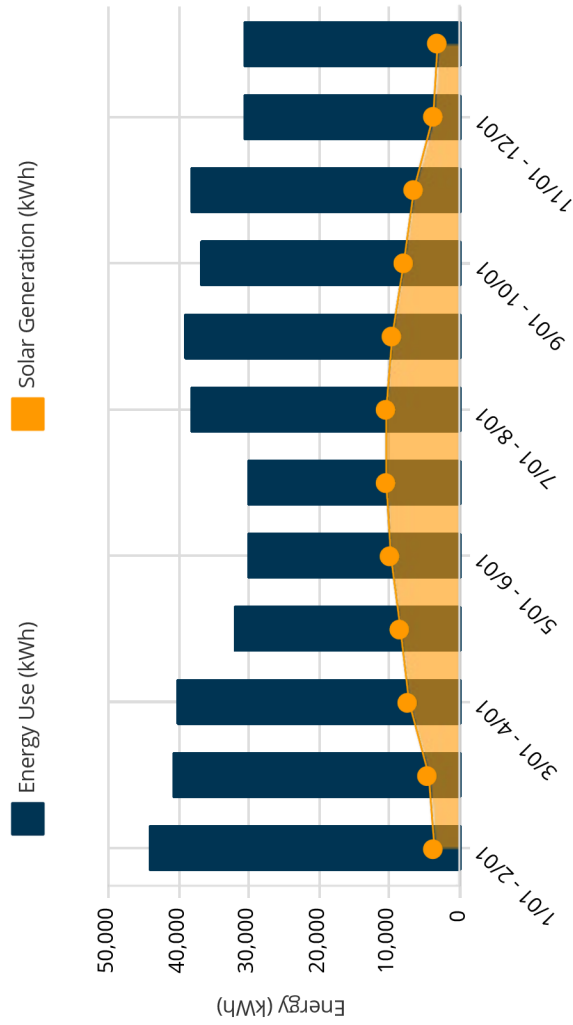
The regulated utility business model has failed but utilities are failing to change, relying on policymakers to protect sunk assets and raising your energy rates. On average we anticipate rates will increase by 4.8% annually.

Pollution:

Over 90% of utility energy generation comes from fossil-fuel plants, like coal or natural gas. This leads to pollution, climate change, and health impacts in our communities.

# Solar PV System Details

System Size & Generation:	
72.6 kW-DC	System Size (DC)
50.0 kW-AC	System Size (AC)
84,850 kWh	1st Year Generation



## Layout Rendering:



## Equipment:

(132) ZNShine Solar ZXM7-SHDB144-550 (2022)

Solar panels

(1) SolarEdge SE50KUS (SE-TRI-US00IBNS4) - Domestic Content

Inverter(s)

## System Pricing & Incentives:

Solar PV System Cost	\$321,268
Direct Pay ITC	-\$128,507
Net Solar PV System Cost	\$192,761

# Your Future Utility, With Solar

Utility Details			Savings Details		
Utility Company	Post-solar Rate Schedule	Annual usage	Total Savings	Total Solar Production	Avg blended savings
AEP-OH	GS	430,320 kWh	\$10,169	84,850 kWh	\$0.120 /kWh

## Monthly Utility Bills, Post-Solar

Time Periods		Energy Use (kWh)	Max Demand (kW)	Charges			
Bill Ranges & Seasons	Total	NC / Max	Other	NBC	Energy	Demand	Total
1/1/2025 - 2/1/2025 S1	40,690	85	\$38	\$0	\$4,155	\$1,440	\$5,633
2/1/2025 - 3/1/2025 S1	36,268	91	\$38	\$0	\$3,705	\$1,541	\$5,284
3/1/2025 - 4/1/2025 S1	32,984	89	\$38	\$0	\$3,375	\$1,507	\$4,920
4/1/2025 - 5/1/2025 S1	23,515	65	\$38	\$0	\$2,430	\$1,101	\$3,569
5/1/2025 - 6/1/2025 S1	20,309	74	\$38	\$0	\$2,093	\$1,253	\$3,385
6/1/2025 - 7/1/2025 S1	19,661	66	\$38	\$0	\$2,021	\$1,118	\$3,177
7/1/2025 - 8/1/2025 S1	27,748	95	\$38	\$0	\$2,846	\$1,609	\$4,493
8/1/2025 - 9/1/2025 S1	29,401	101	\$38	\$0	\$3,011	\$1,711	\$4,759
9/1/2025 - 10/1/2025 S1	28,887	92	\$38	\$0	\$2,966	\$1,558	\$4,563
10/1/2025 - 11/1/2025 S1	31,620	83	\$38	\$0	\$3,231	\$1,406	\$4,675
11/1/2024 - 12/1/2024 S1	26,840	81	\$38	\$0	\$2,747	\$1,372	\$4,157
12/1/2024 - 1/1/2025 S1	27,549	79	\$38	\$0	\$2,816	\$1,338	\$4,192
Total		345,472	-	\$459	\$35,397	\$16,953	\$52,809

Solar Production Offset %:



Utility	345,470 kWh (80.28%)
Solar PV	84,850 kWh (19.72%)

Avoided Cost calculation:

Pre-solar utility bill: \$62,978

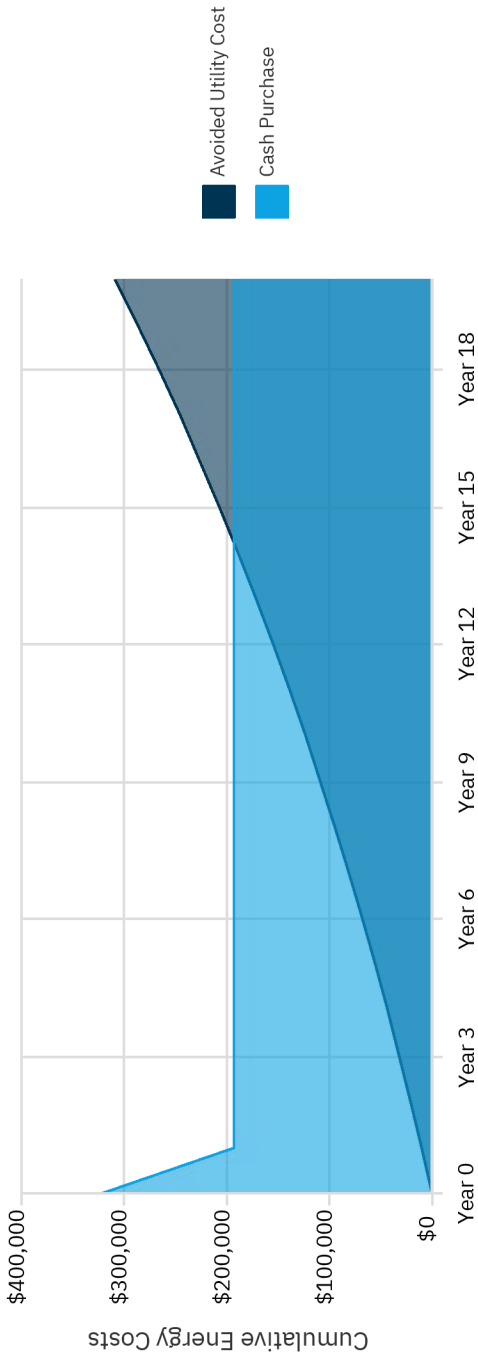
Post-solar utility bill: \$52,809

Savings: \$10,169

# Financing Summary

Payment Options		Cash Purchase
Total Payments		\$321,268
Total Incentives		\$128,507
Net Payments		\$192,761
Payback Period IRR		14.2 Years
(20 Year) NPV (20 Year)		4.1% (\$18,532)

Cummulative Energy Costs By Payment Option



## Payment Details

### Benefits of a Cash Purchase:

- Maximize your savings by owning a secure long-term investment
- Use federal incentives to reduce your tax liability
- Increase the market value of your structure

### Payment Terms:

- 30% with order
- 30% upon delivery of materials to site - 30% upon completion - Full balance upon permission to operate
- Payment not to exceed 30 days

### Tariffs:

If any new tariffs, trade duties, or import/export restrictions are imposed that would impact these costs, SES will promptly notify the client. Any resulting increase in cost will either be absorbed by the client or subject to renegotiation to reach a fair adjustment, though SES reserves the right to terminate the contract.

This proposal is only valid for 7 days from issuance.

# Cash Purchase - Cash Flow Analysis

Years	Cash			PV Generation (kWh)	Total Cash Flow	Cumulative Cash Flow
	Project Costs	Electric Bill Savings	Direct Pay ITC			
Upfront	-\$321,268	-	-	-	-\$321,268	-\$321,268
1	-	\$10,169	\$128,507	84,849	\$138,676	-\$182,592
2	-	\$10,598	-	84,382	\$10,598	-\$171,994
3	-	\$11,045	-	83,916	\$11,045	-\$160,949
4	-	\$11,511	-	83,449	\$11,511	-\$149,438
5	-	\$11,996	-	82,982	\$11,996	-\$137,442
6	-	\$12,501	-	82,516	\$12,501	-\$124,941
7	-	\$13,027	-	82,049	\$13,027	-\$111,913
8	-	\$13,575	-	81,582	\$13,575	-\$98,339
9	-	\$14,145	-	81,116	\$14,145	-\$84,193
10	-	\$14,739	-	80,649	\$14,739	-\$69,455
11	-	\$15,357	-	80,182	\$15,357	-\$54,098
12	-	\$16,000	-	79,716	\$16,000	-\$38,097
13	-	\$16,670	-	79,249	\$16,670	-\$21,427
14	-	\$17,367	-	78,782	\$17,367	-\$4,060
15	-	\$18,093	-	78,316	\$18,093	\$14,034
16	-	\$18,849	-	77,849	\$18,849	\$32,882
17	-	\$19,635	-	77,382	\$19,635	\$52,517
18	-	\$20,454	-	76,916	\$20,454	\$72,971
19	-	\$21,305	-	76,449	\$21,305	\$94,276
20	-	\$22,192	-	75,982	\$22,192	\$116,468
Total				\$128,507	-\$321,268	

Financial Metrics

Payback:

14.2 Years

ROI:

36.3%

10 Year IRR:

(6.3%)

20 Year IRR:

4.1%

Assumptions

Utility Escalator:

4.8%

Federal tax rate:

0.0%

State tax rate:

0.0%

Modeling:

After Tax



# SOLAR ENERGY SOLUTIONS QUALIFICATIONS **PROPOSED EQUIPMENT SPECS**

Next pages

# ZXM7-SHDB144 Series

10BB HALF-CELL Bifacial Monocrystalline PERC PV Module



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

**530-555W**

POWER RANGE

**21.48%**

MAXIMUM EFFICIENCY

**0.55%**

YEARLY DEGRADATION



12 YEARS PRODUCT WARRANTY



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.

## Key Features



### Excellent Cells Efficiency

MBB technology reduce the distance between busbars and finger grid line which is benefit to power increase.



### Better Weak Illumination Response

More power output in weak light condition, such as haze, cloudy, and early morning.



### Anti PID

Ensured PID resistance through the quality control of cell manufacturing process and raw materials.



### Adapt To Harsh Outdoor Environment

Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity environment.



### TIER 1

Global, Tier 1 bankable brand, with independently certified advanced automated manufacturing.



### Excellent Quality Management System

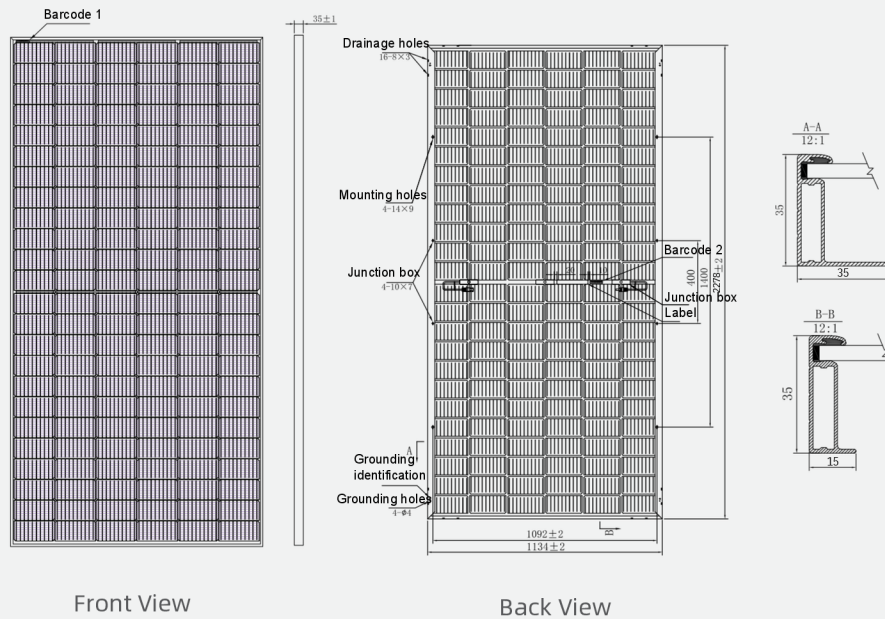
Warranted reliability and stringent quality assurances well beyond certified requirements.



### Bifacial Technology

Up to 25% additional power gain from back side depending on albedo.

## DIMENSIONS OF PV MODULE(mm)

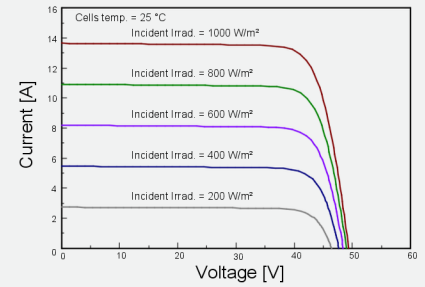


Front View

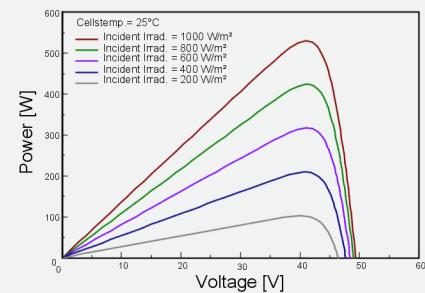
Back View

\*Remark: customized frame color and cable length available upon request

## I-V CURVES OF PV MODULE(530W)



## P-V CURVES OF PV MODULE(530W)



## ELECTRICAL CHARACTERISTICS | STC\*

Nominal Power Watt Pmax(W)*	530	535	540	545	550	555
Maximum Power Voltage Vmp(V)	41.10	41.30	41.50	41.70	41.90	42.10
Maximum Power Current Imp(A)	12.91	12.96	13.02	13.07	13.13	13.19
Open Circuit Voltage Voc(V)	49.40	49.60	49.80	50.00	50.20	50.40
Short Circuit Current Isc(A)	13.65	13.71	13.77	13.83	13.89	13.95
Module Efficiency (%)	20.52	20.71	20.90	21.10	21.29	21.48

\*The data above is for reference only and the actual data is in accordance with the practical testing

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25±2°C, AM 1.5

\*Measuring uncertainty: ±3%, all the electrical characteristics such as Power, Im, Vm and FF are within ±3% tolerance.

## MECHANICAL DATA

Solar cells	Mono PERC
Cells orientation	144 (6×24)
Module dimension	2278×1134×35mm (With Frame)
Weight	29±1 kg
Glass	3.2mm, High Transmission, AR Coated Tempered Glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm (With Connectors)
Connectors*	MC4

\*Please refer to regional datasheet for specified connector

## ELECTRICAL CHARACTERISTICS | NMOT\*

Maximum Power Pmax(Wp)	396.40	399.90	403.60	406.80	410.80	414.60
Maximum Power Voltage Vmpp(V)	38.20	38.40	38.50	38.80	38.90	39.10
Maximum Power Current Imp(A)	10.38	10.42	10.47	10.49	10.56	10.61
Open Circuit Voltage Voc(V)	46.20	46.30	46.50	46.70	46.90	47.10
Short Circuit Current Isc(A)	11.02	11.07	11.12	11.17	11.22	11.27

\*NMOT: Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

## TEMPERATURE RATINGS

NMOT	44°C ±2°C	Maximum system voltage	1500 V DC
Temperature coefficient of Pmax	-0.35%/°C	Operating temperature	-40°C~+85°C
Temperature coefficient of Voc	-0.29%/°C	Maximum series fuse	30 A
Temperature coefficient of Isc	0.05%/°C	Front Side Maximum Static Load	5400Pa
Refer. Bifacial Factor	70±5%	Rear Side Maximum Static Load	2400Pa

\*Remark: Do not connect Fuse in Combiner Box with two more strings in parallel connection

## ELECTRICAL CHARACTERISTICS WITH 25% REAR SIDE POWER GAIN\*

Front power Pmax/W	530	535	540	545	550	550
Total power Pmax/W	663	669	675	681	688	694
Vmp/V(Total)	41.20	41.40	41.60	41.80	42.00	42.20
Imp/A(Total)	16.08	16.15	16.23	16.30	16.37	16.44
Voc/V(Total)	49.50	49.70	49.90	50.10	50.30	50.50
Isc/A(Total)	17.02	17.10	17.17	17.25	17.32	17.39

\*Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

## PACKAGING CONFIGURATION\*

Piece/Box	31
Piece/Container(40'HQ)	620

\*Customized packaging is available upon request.

\*Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer.

They only serve for comparison among different module types.

\*Caution: Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.



Manufactured in USA



## Engineering Services

***Every carport project is unique, as multiple factors can impact the PV layout and structural design.***

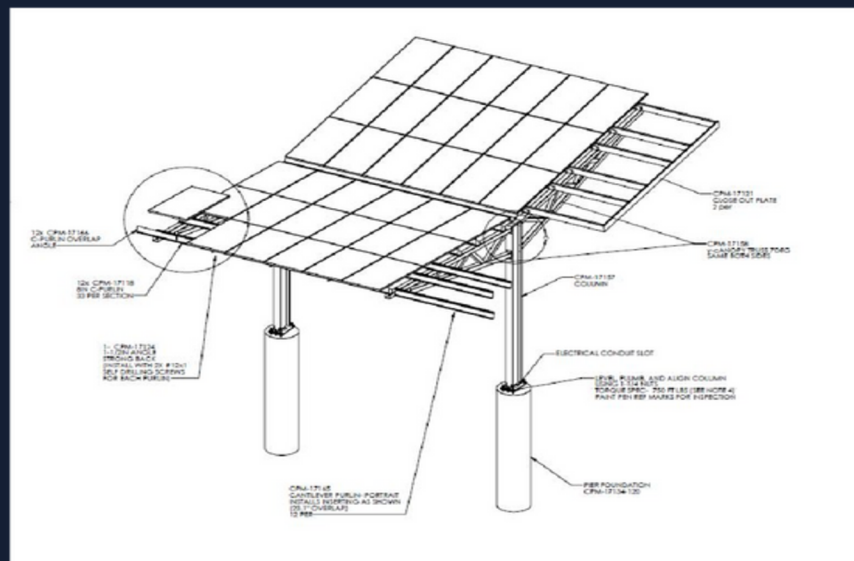
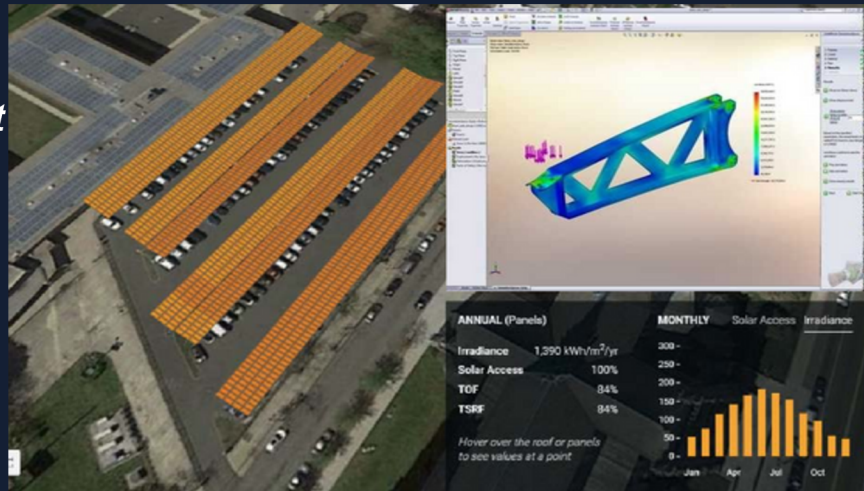
- Parking lot orientation and space
- City/County/State Regulations
- ASCE Hazard & Structural Guidelines

***No matter what variables arise, our executive engineering team will design a system that offers you the most cost effective solution for project.***

## PV Production vs Aesthetics

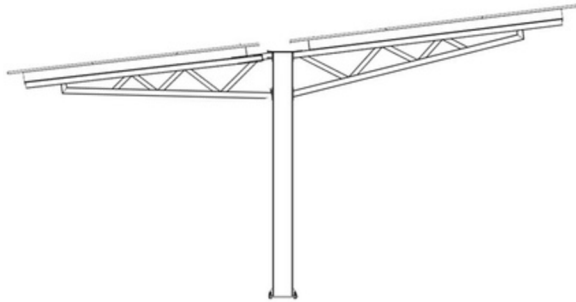
***After our NABCEP PV designers finalize the layout that meets your energy production requirements, our structural and civil engineers will provide all of the certified drawings and calculations for permit approval.***

***All structural components are in strict compliance with the standards set forth by the American Iron and Steel Institute's Specifications for Formed Steel Structural Members. ISO-9001 Quality certification (currently in progress).***

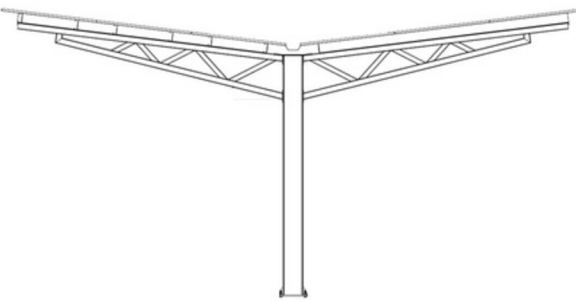




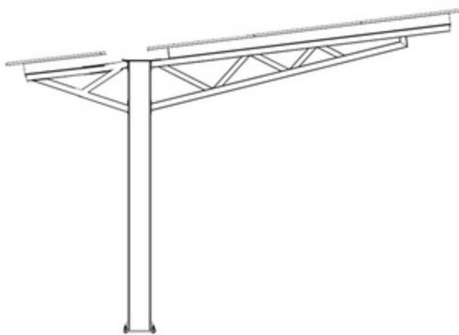
**T-FRAME DESIGN (36x 72 Cell Modules/Section)**



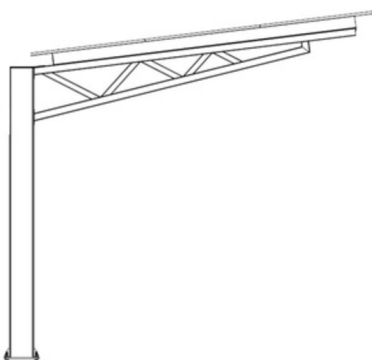
**Y-FRAME DESIGN (36x 72 Cell Modules/Section)**



**L-FRAME DESIGN (24x 72 Cell Modules/Section)**



**L-FRAME DESIGN (18x 72 Cell Modules/Section)**



Application	Parking Area & Sidewalks		
Tilt Angle	7 Degrees	Modules Per Section	36
Module Orientation	Portrait	Ground Clearance	Site Specific
Wind Load	125 MPH	Foundation	Reinforced Concrete
Snow Load	50 PSF	Purlin Length	236 Inches
Post Spacing	236 Inches	Manufacturing	Made in Michigan, USA

## PRODUCT SPECIFICATIONS

All products specifications have been verified through third party engineering firms. For areas with higher wind/snow requirements, additional options are available.

20 - 34 foot section spans are available.



36 PANEL Y or T FRAME CANOPIES

24 PANEL L FRAME CANOPIES

18 PANEL L FRAME CANOPIES



WE ALSO OFFER THE FOLLOWING:

**BALLASTED COMMERCIAL  
ROOF MOUNTS**



**12 - 24 PANEL POLE MOUNTS  
SEASON ADJUST & DUAL AXIS  
TRACKING**



**Vector 2.0 GROUND MOUNTS**



**BALLESTED GROUND MOUNTS**



## CONTACT US

97 River road,  
Flemington, NJ 08822



## COMPANY OVERVIEW

Genmounts™ has fast become the industry standard for non-penetrating ballasted solar racking and the brand has now expanded to offer new products and services. Our pv racking systems have won over design professionals and installers with rapid install times and quality engineered features.

## VISION

Our vision is to become a "one-stop-shop" for your solar project requirements. From preliminary designs to full installation support, we will be there for you!

Contact us today to get your project started.

phone+1 -908-788-7750  
email: Sid@Genmounts.com  
www.Genmounts.com

# Three Phase Inverter with Synergy Technology For the 208V Grid for North America

SE50KUS

INVERTERS



## Powered by unique pre-commissioning process for rapid system installation

- Pre-commissioning feature for automated validation of system components and wiring during the site installation process and prior to grid connection
- Easy 2-person installation with lightweight, modular design (each inverter consists of 3 Synergy units and 1 Synergy Manager)
- Independent operation of each Synergy unit enables higher uptime and easy serviceability
- Built-in thermal sensors detect faulty wiring ensuring enhanced protection and safety
- Built-in arc fault protection and rapid shutdown
- Built-in PID mitigation for maximized system performance
- Monitored\* and field-replaceable surge protection devices, to better withstand surges caused by lightning or other events
- Built-in module-level monitoring with Ethernet or cellular communication for full system visibility

\*Applicable only for DC and AC SPDs

# Three Phase Inverter with Synergy Technology

## For the 208V Grid for North America

### SE50KUS

MODEL NUMBER	SExxK-USx2lxxxx	
APPLICABLE TO INVERTERS WITH PART NUMBER	SE50KUS	UNITS
<b>OUTPUT</b>		
Rated AC Active Output Power	50000	W
Maximum AC Apparent Output Power	50000	VA
AC Output Line Connections	3W + PE, 4W + PE	
Supported Grids	WYE: TN-C, TN-S, TN-C-S, TT, IT, Delta: IT	
AC Output Voltage Minimum-Nominal-Maximum(1) (L-N)	105 – 120 – 132.5	Vac
AC Output Voltage Minimum-Nominal-Maximum(1) (L-L)	183 – 208 – 229	Vac
AC Frequency Min-Nom-Max(1)	59.5 – 60 – 60.5	Hz
Maximum Continuous Output Current (per Phase, PF=1)	139.5	Aac
GFDI Threshold	1	A
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes	
Total Harmonic Distortion	≤ 3	%
Power Factor Range	±0.85 to 1	
<b>INPUT</b>		
Maximum DC Power (Module STC) Inverter / Synergy Unit	87500 / 29165	W
Transformer-less, Ungrounded	Yes	
Maximum Input Voltage DC+ to DC-	600	Vdc
Operating Voltage Range	370 – 600	Vdc
Maximum Input Current	3 x 46.5	Adc
Reverse-Polarity Protection	Yes	
Ground-Fault Isolation Detection	167kΩ sensitivity per Synergy Unit	
CEC Weighted Efficiency	97	%
Nighttime Power Consumption	< 12	W
<b>ADDITIONAL FEATURES</b>		
Supported Communication Interfaces(3)	2 x RS485, Ethernet, Wi-Fi (optional), Cellular (optional)	
Smart Energy Management	Export Limitation	
Inverter Commissioning	With the SetApp mobile application using built-in Wi-Fi access point for local connection	
Arc Fault Protection	Built-in, User Configurable (According to UL1699B)	
Photovoltaic Rapid Shutdown System	NEC 2014 – 2023, built-in	
PID Rectifier	Nighttime, built-in	
RS485 Surge Protection (ports 1+2)	Type II, field replaceable, integrated	
AC, DC Surge Protection	Type II, field replaceable, integrated	
DC Fuses (Single Pole)	25A, integrated	
Pre-Commissioning	Built-in(4)	
VAR at Night(5)	Yes	
<b>DC SAFETY SWITCH</b>		
DC Disconnect	Built-in	
<b>STANDARD COMPLIANCE</b>		
Safety	UL1699B, UL1741, UL1741 SA, UL1741 SB, UL1998, CSA C22.2#107.1, Canadian AFCEI according to T.I.L. M-07	
Grid Connection Standards	IEEE 1547-2018, Rule 21, Rule 14 (H1)	
Emissions	FCC part 15 class A	

(1) For other regional settings please contact SolarEdge support.

(2) Where permitted by local regulations.

(3) For specifications of the optional communication options, visit the [Communication product page](#) or the [Knowledge Center](#) to download the relevant product datasheet.

(4) Not available for P/Ns SExxK-xxxxBPxx.

(5) For details, see [Set Volt Ampere Reactive at Night](#).

# **Three Phase Inverter with Synergy Technology** **For the 208V Grid for North America** **SE50KUS**

MODEL NUMBER		SExxK-USx2lxxxx	
APPLICABLE TO INVERTERS WITH PART NUMBER		SE50KUS	UNITS
<b>INSTALLATION SPECIFICATIONS</b>			
Number of Synergy Units per Inverter		3	
AC Max Conduit Size		2 ½"	in
Max AWG Line / PE		4/0 / 1/0	
DC Max Conduit Size		1 x 3"; 2 x 2"	in
DC Input Inverter / Synergy Unit	Multi-input (SExxK-USxxxxxZ4)	12 / 4 pairs; 6 – 12 AWG	
	Combined input (SExxK-USxxxxxW4)	3 pairs / 1 pair, Max 2 AWG; copper or aluminum	
Dimensions (H x W x D)		Synergy Unit: 22 x 12.9 x 10.75 / 558 x 328 x 273 Synergy Manager: 14.17 x 22.4 x 11.6 / 360 x 560 x 295	in /mm
Weight		Synergy Unit: 70.4 / 32 Synergy Manager: 39.6 / 18	lb /kg
Operating Temperature Range		-40 to +140 / -40 to +60(6)	°F/°C
Cooling		Fan (user replaceable)	
Noise		< 67	dBA
Protection Rating		NEMA 3R	
Mounting		Brackets provided	


(6) For power de-rating information refer to the [Temperature Derating Technical Note for North America](#).



SolarEdge is a global leader in smart energy technology. By leveraging world-class engineering capabilities and with a relentless focus on innovation, SolarEdge creates smart energy solutions that power our lives and drive future progress.

SolarEdge developed an intelligent inverter solution that changed the way power is harvested and managed in photovoltaic (PV) systems. The SolarEdge DC optimized inverter maximizes power generation while lowering the cost of energy produced by the PV system.

Continuing to advance smart energy, SolarEdge addresses a broad range of energy market segments through its PV, storage, EV charging, UPS, and grid services solutions.

 SolarEdge @SolarEdgePV @SolarEdgePV

 SolarEdgePV SolarEdge

 [www.solaredge.com/corporate/contact](http://www.solaredge.com/corporate/contact)







**[solaredge.com](http://solaredge.com)**

©SolarEdge Technologies, Ltd. All rights reserved. SOLAREGE, the SolarEdge logo, OPTIMIZED BY SOLAREGE are trademarks or registered trademarks of SolarEdge Technologies, Inc. All other trademarks mentioned herein are trademarks of their respective owners. Date: February 3, 2025 DS-000037-NAM Subject to change without notice.

Cautionary Note Regarding Market Data and Industry Forecasts: This brochure may contain market data and industry forecasts from certain third-party sources. This information is based on industry surveys and the preparer's expertise in the industry and there can be no assurance that any such market data is accurate or that any such industry forecasts will be achieved. Although we have not independently verified the accuracy of such market data and industry forecasts, we believe that the market data is reliable and that the industry forecasts are reasonable.





# SOLAR ENERGY SOLUTIONS QUALIFICATIONS PROPOSED FINANCING STRUCTURE

Solar Energy Solutions (SES) proposes a turnkey installation of a 4-high Genmounts L-Frame carport system at Location #2, as identified in the City's map of potential solar deployment areas and as referenced in the November 3rd Q&A document. Our approach is designed to meet all technical requirements, maximize energy performance, and ensure full compliance with domestic content provisions. See the Project Approach section for more details on the installation.

**The turnkey pricing for the proposal solar canopy is: \$321,268.36**

**Federal 30% Tax Credit = 10% Domestic Content Bonus: -\$128,507**

**Estimated net cost after incentives: \$192,761**

Note on Subcontractors - SES expects to perform all work for this project in-house except for drilling the canopy foundations.

## Payment Schedule

- Safe Harbour payment (estimated at 5%\_
- 30% of the remaining balance after safe harbor payment
- 30% with major equipment delivery
- 20% with major mechanical and electrical completion
- 10% upon PTO, not to exceed 45 days from system completion

# SOLAR ENERGY SOLUTIONS QUALIFICATIONS **RELEVANT PROJECT EXPERIENCE**

You will find examples of our projects on the following pages.



## 175 kW Bowman Field Solar Canopy

Government | Louisville, KY

### Project Details:

- **Location** - Louisville, KY
- **Completed** - 2024
- **Modules** - NE Solar 540 watt
- **Size** - 174.9 kW
- **Role** - EPC

### Project Reference:

- Will Philips
- Energy Management  
Program Manager, United  
States Army
- [william.s.phillips16.nfg@army.mil](mailto:william.s.phillips16.nfg@army.mil)

### Project Description:

Solar Energy Solutions (SES) provided a grid-tied 174.96 kW DC carport solar array that produced an estimated 210,400 kWh per year at the Bowman Field National Guard Facility. SES also installed two ClipperCreek HCS-D50 dual charging stations on the carport posts nearest the facility.

GenMounts supplied engineering services and materials for the carport structures, while SES completed the foundation work, erected the structures, and performed the turn-key installation and interconnection of the solar array. The project utilized Chint inverters and included eGauge monitoring for advanced tracking of both solar production and EV charger consumption.





## 36 kW Boone National Guard Solar Canopy Government | Frankfort, KY

### Project Details:

- **Location** - Louisville, KY
- **Completed** - 2025
- **Modules** - ZNShine 540 watt
- **Size** - 35.6 kW
- **Role** - EPC

### Project Reference:

- Will Philips
- Energy Management  
Program Manager, United  
States Army
- [william.s.phillips16.nfg@army.mil](mailto:william.s.phillips16.nfg@army.mil)

### Project Description:

Solar Energy Solutions (SES) provided a grid-tied 35.6 kW DC carport solar array that produced an estimated 48,074 kWh per year at the Boone National Guard Center. The system included SolarEdge AC inverters, a GenMount carport structure, and ZNShine 540 W panels.

GenMounts supplied engineering services and materials for the carport structures, while SES completed the foundation work, erected the structures, and performed the turnkey installation and interconnection of the solar array. The project utilized an eGauge system for advanced production and consumption monitoring.





## 71 kW Wendell H Ford RTC Solar Canopy

Government | Greenville, KY

### Project Details:

- **Location** - Greenville, KY
- **Completed** - 2025
- **Modules** - ZNShine 540 watt
- **Size** - 71.3 kW
- **Role** - EPC

### Project Reference:

- Will Philips
- Energy Management  
Program Manager, United  
States Army
- [william.s.phillips16.nfg@army.mil](mailto:william.s.phillips16.nfg@army.mil)

### Project Description:

Solar Energy Solutions (SES) provided a grid-tied 71.3 kW DC carport solar array at the WHF Regional Training Center, which is estimated to produce 101,832 kWh per year. The system includes a GenMount carport, ZNShine 540-watt panels, and two SolarEdge AC inverters

GenMounts supplied engineering services and materials for the carport structures, while SES completed the foundation work, erected the structures, and handled the turnkey installation and interconnection of the solar array. The project utilizes an eGauge system for advanced monitoring of both production and facility consumption.





## 1.1 MW High School Installation Institutional Sector | Eastern, VA

### Project Details:

- **Location** - Dendron, KY
- **Completed** - 2025
- **Modules** - Jinko Solar
- **Size** - 1,098 kW
- **Cost** - \$1,730,651
- **SES Role** - EPC

### Project Description:

This High School Solar Project in Eastern, Kentucky, completed in 2025, provides clean, cost-stable energy to the local school. The system utilizes solar modules installed on a Terrasmart/RBI four-high portrait, 15-degree tilt ground mount racking system. This system was chosen to maximize energy output within a limited site area.

The High School pursued this initiative primarily to stabilize and control long-term energy costs through renewable power generation. The project is owned by a third party, which supplies the school with the electricity through a Power Purchase Agreement (PPA). This structure allows the school to benefit from predictable energy pricing and sustainable power without upfront capital investment.





## 1.53 MW Frankfort Plant Board Government Sector | Frankfort, KY

### Project Details:

- **Location** - Frankfort, KY
- **Completed**
  - Phase 1 - 187 kW 2023
  - Phase 2 - 1.34 MW - 2025
- **Modules**
  - Phase 1 Boviet Solar
  - Phase 2 ZNShine
- **SES Role** - EPC

### Reference

Travis McClullar  
Director of Electric Operations  
502.352.4608 - [tmccullar@fewpb.com](mailto:tmccullar@fewpb.com)

### Project Description:

Phase One of the project involved Solar Energy Solutions (SES) installing a 187 kW DC grid-tied solar array for the Frankfort Plant Board facility.

Phase Two of the project involved a 1 MW DC ballasted ground mount installation on a site that was previously used for construction debris.

Designed for long-term reliability and efficiency, these installations meet NEC, utility, and regulatory standards while providing the lowest cost per kilowatt-hour through high-quality design and components.

# SOLAR ENERGY SOLUTIONS QUALIFICATIONS **SAMPLE AGREEMENT**

Next pages



## SOLAR ENERGY INSTALLATION AGREEMENT

This Solar Energy Installation Agreement ("Agreement") made this XX day of Month, 202X, ("Effective Date") by and between SOLAR ENERGY SOLUTIONS, LLC, a Kentucky limited liability company, 1038 Brentwood Ct., Suite B, Lexington, KY 40511 (hereinafter called "Contractor") and FIRSTNAME LASTNAME(hereinafter called "Client").

WHEREAS, the Client wishes to employ the Contractor to design a solar system ("Project") for purpose of producing electricity and/or energy storage at STREET, CITY, ST 12345 (the "Location").

### 1. Generalities.

The Contractor shall design the aforementioned system(s) for the Location, hereto specified by the Client as set forth in Attachment A (hereinafter called the "Scope of Services or Scope of Work"). In situations where prevailing natural disasters, acts of God, wars, governmental actions or Client availability causes the design of a solar or energy storage system to be executed remotely, without direct site inspection, the Contractor reserves the right to amend the "Scope of Services" described in Attachment A subsequent to a formal on-site design review. Any such changes will be by equitable adjustment and this Agreement shall be modified in writing accordingly pursuant to a written change order signed by both parties.

### 2. Additional Services.

If requested by the Client, the Client and the Contractor will negotiate for additional services in connection with this Agreement and will set forth any additional services in writing.

### 3. Client's Responsibilities.

The Client shall:

- a. Continue to promptly provide full information as to the Client's needs and requirements for the Project to Contractor or its designate.
- b. Assist the Contractor by placing at its disposal all available information pertinent to the Work to be performed under the "Scope of Services" described in Attachment A.
- c. Give prompt written notice to the Contractor whenever the Client observes or otherwise becomes aware of any defect (or significant variance) in the Work or apparent non-conformance of Work performed in accordance with the "Scope of Services" as set forth in Attachment A, or of any change of circumstances.

### 4. Compensation.

- a. The total compensation to be paid to Contractor for the Work is set forth in Attachment A.
- b. Contractor shall be paid for the Work upon the following schedule:
  - i. 20% on or prior to order (the Retainer): \$ XX,XXX.XX
  - ii. 50% upon delivery of good on site and installation \$ XX,XXX.XX
  - iii. 30% and all balances upon acceptance of the Work and inspection: \$ XX,XXX.XX
- iv. Invoices not paid within thirty (30) days of the invoice due date shall be subject to a late fee of three percent (3%) per month of that invoice's amount, computed at 30 days from the date of invoice. Contractor shall retain title to all equipment installed under the Work and retain its statutory lien rights until paid in full.

5. Time of Completion.

a. The Work to be performed by the Contractor is to be completed as set forth in Attachment A. This completion date, if stated, may be extended in the event of circumstances beyond the control of the Contractor, including, but not limited to, failure by the Client to make timely payments, war, insurrection or Acts of God. In such circumstances, Contractor will provide a new completion date to the Client, in writing, within 30 days of the incident(s) compelling the change of time of completion.

6. Procurement of Licenses and Permits.

The Contractor shall secure all licenses and permits necessary for proper completion of the Work under this Agreement, paying the fees for such licenses and permits.

7. General Provisions.

a. Standards of Performance.

The standard of care for all services performed or furnished by the Contractor under this Agreement will be the care and skill ordinarily used by members of the Contractor's profession, practicing under similar circumstances at the same time and in the same locality.

b. Warranty.

i. LIMITATION OF WARRANTIES. There are no understandings, terms, conditions or warranties other than as specifically set forth herein.

A. LIMITED WARRANTY. Contractor warrants that the Work are as described on Attachment A and delivered under this Agreement will conform to its specifications, and will be free from defects in materials and workmanship as of the date of delivery for a period of three (3) years in relation to residential projects and one (1) year for commercial installs, but no other express warranty is made with respect to the Work. Contractor hereby passes to Client the original manufacturer's warranty of twenty-five (25) years for the power production on the modules and a minimum ten (10) year original manufacturer's warranty for the inverters. All warranty claims must be notified to Contractor in writing by Client within thirty (30) days of discovery giving rise to such claim. Failure to provide such notice shall void the warranty.

B. DISCLAIMER OF IMPLIED WARRANTIES. CONTRACTOR DISCLAIMS ALL IMPLIED WARRANTIES WITH RESPECT TO THE WORK, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FREEDOM FROM INFRINGEMENT CLAIMS, AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE WARRANTY SET FORTH HEREIN.

c. Limitation of Liability.

i. LIMITATION OF CLIENT'S REMEDIES. Contractor's sole and exclusive liability hereunder shall be limited to the obligation to repair or replace only those portions of the Work that have been proven to have failed to meet the written specification at the time of delivery and have failed within the time periods set forth above, or allow credit therefor upon mutual agreement of the parties. Contractor's total cumulative liability in any way arising from or pertaining to any Work shall not in any case exceed the compensation paid by Client for such non-conforming Work. CONTRACTOR WILL NOT BE LIABLE TO CLIENT, ITS CUSTOMERS, EMPLOYEES OR AGENTS, UNDER ANY CLAIM OR CIRCUMSTANCES (INCLUDING WITHOUT LIMITATION ANY CIRCUMSTANCE INVOLVING A FINDING THAT A WARRANTY OR REMEDY HAS FAILED OF ITS ESSENTIAL PURPOSE), WHETHER THE CLAIM SOUNDS IN CONTRACT, TORT OR OTHER LEGAL THEORY, FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION DAMAGES FOR LOST PROFITS OR REVENUE, LOST SALES, LOST GOODWILL OR LOSS OF USE OF ANY PRODUCT.

ii. LIMITATION OF LIABILITY FOR FAILURE OR DELAY IN DELIVERY. Delivery dates are approximate and are based on conditions existing at the time of commencement of the Work. In no event shall Contractor be



responsible or liable for any damages, including special, indirect, incidental or consequential damages arising from any failure or delay in delivery.

iii. LIMITATION OF POWER PRODUCTION GUARANTEES. Contractor does not provide a performance guarantee for the amount of power to be produced from the Work as such performance is conditioned upon local meteorological conditions, vegetative shading and Client system maintenance and upkeep.

d. Changes.

The Client may, at any time by written notice, make changes to the Work provided; however, that if such changes cause an increase or decrease in the Contractor's expenses, or time required, for performance of any services, whether or not changed by any order, an equitable adjustment shall be made and this Agreement shall be modified in writing accordingly pursuant to a written change order signed by both parties. In the event that the Contractor finds non-visible defects or circumstances which pose a barrier to completion of the installation of the system(s), including but not limited to asbestos, rot and mold (or other environmental conditions), the Contractor will notify the Client of the non-visible defects, so that the parties may negotiate an equitable modification of the terms of this Agreement. In the event the Contractor discovers any non-visible barriers to completion of the installation of the systems, including but not limited to rock preventing ground racking insertion, roof condition, existing code failures and spatial limitations, the Contractor will notify the Client so the parties can negotiate an equitable modification of the terms of this Agreement pursuant to a written change order.

e. Force Majeure

Either Party shall be excused from performance and shall not be in default in respect of any obligation hereunder to the extent that the failure to perform such obligation is due to a Natural Force Majeure Event. Force Majeure events include natural disasters, acts of God, wars, governmental actions, trade sanctions or tariff impositions.

8. Successor and Assigns.

The Client and the Contractor each binds itself and its partners, successors, executors, administrators, and assigns to the other party of this Agreement and to the partners, successors, executors, administrators, and assigns of such other party, in respect of all covenants of this Agreement; except as above, neither Client nor Contractor shall assign, sublet or transfer its interest in this Agreement without prior written consent of the other. Client recognizes that acceptance of Attachment A by Contractor constitutes prior written consent. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body which may be a party thereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than Client and Contractor.

9. Dispute Resolution.

a. Claims, disputes or other matter in question between the parties to this Agreement shall be first subject to mediation prior to the filing of any arbitration. Mediation is a condition precedent to arbitration. The obligation to mediate is a material and essential provision of this Agreement.

b. Unless otherwise agreed in writing, the Contractor shall carry on the Work and maintain its progress during any mediation or arbitration, and the Client shall continue to make payments to the Contractor in accordance with this Agreement.

c. Either party may initiate a mediation proceeding by submitting a request in writing to the other party within thirty (30) days after the claim, dispute or other matter in question has arisen.

d. The parties shall endeavor in good faith to mutually agree upon an acceptable mediator. In the event the parties have not agreed upon a mediator within 30 days of the request for mediation, the Contractor shall select a mediator. Each party is to bear its own fees, costs and expenses, of said mediation.

e. In the event that mediation is unsuccessful, the parties shall submit to binding arbitration. This Agreement shall be governed in all aspects by the laws of the Commonwealth of Kentucky. All disputes, if



not settled by mediation, which may arise relating to this Agreement, shall be settled according to the arbitration rules of the American Arbitration Association by one (1) arbitrator appointed to settle the dispute. The cost of such arbitration will be divided equally by the parties involved. Arbitration shall be held exclusively in Louisville, Kentucky and the decision of the arbitrator shall be binding on both parties. The prevailing party shall have the right to enforce such decision in the state or Federal courts sitting in Jefferson County, Kentucky, and each party submits to the exclusive jurisdiction thereof. Each party waives any defense of forum non-conveniens, or like defense. The decision of the arbitrator shall be final and obligatory for both parties. The prevailing party shall be entitled to recover its reasonable attorneys' fees and expenses incurred in mediation or arbitration from the losing party.

#### 10. Indemnity.

a. Subject to the provisions and limitations set forth in Sections 7(b) and (c) of this Agreement, the Contractor shall hold harmless and indemnify the Client and his officials, agents, and employees against any and all claims, loss, damage, injury, fines, penalties, and costs, including reasonable court costs and attorney fees, arising out of or caused by the Contractor's intentional, wilful, wanton, reckless, or negligent acts, errors, or omissions in the Contractor's performance under this Agreement, including the actions, errors, or omissions of the Contractor's officials, agents, or employees in performance under this Agreement.

b. The Client shall hold harmless and indemnify the Contractor and its officials, agents, and employees against any and all claims, loss, damage, injury, fines, penalties, and costs, including reasonable court costs and attorney fees, arising out of or caused by the Client's intentional, wilful, wanton, reckless, or negligent acts, errors, or omissions in the Client's performance under this Agreement, including the actions, errors, or omissions of the Client's officials, agents, or employees in performance under this Agreement.

#### 11. Termination.

Either party may terminate this Agreement in whole or in part after giving written notice of termination (specifying specific portions being terminated, if terminated in part,) at least thirty (30) days before date of termination. The Client may terminate this Agreement at any time by giving thirty days (30) notice to the Contractor. If this Agreement is terminated, the Contractor shall be compensated for Work actually performed and expense(s) incurred by Contractor up to the date of termination, including administrative, design Work or Work subrogated to other parties.

#### 12. Counterparts.

This Agreement may be executed in two or more original or facsimile counterparts, each of which shall be deemed an original and all of which shall constitute but one and the same Agreement.

#### 13. Complete Agreement.

This Agreement constitutes the entire Agreement and understanding between the parties hereto and replaces, cancels and supersedes any prior oral or written Agreements and understandings relating to the subject matter hereof.

#### 14. Construction.

Should any provision of the Agreement require interpretation or construction, it is agreed by the parties hereto that the Court, administrative body or other entity interpreting or construing this Agreement shall not apply a presumption that the provision hereof shall be more strictly construed against one party than another by reason of the rule of construction that a document is to be more strictly construed against the party who itself or through its agent prepared the same. The headings of sections and subsections are convenience only and shall not affect or control the meaning or construction of any of the provisions of this Agreement.

#### 15. Notices.

All notices, requests, demands, or other communications required under this Agreement shall be made in writing and shall be served by hand delivery or by placing such in the United States Mail, certified mail, return receipt requested and bearing adequate postage. Each notice shall be effective upon receipt.

#### 16. Confidentiality.

The Client shall not disclose nor permit disclosure of any information specifically designated by the Contractor as confidential or proprietary, except to its employees and other sub-consultants who need such information in order to properly execute the services of this Agreement. If the Contractor determines the Client has informed the Contractor's competitors of processes proprietary to the Contractor, the Contractor can file suit to request mediation or court award of any damages incurred.

#### 17. Ownership of Work Product.

The Contractor shall continue to be the owner of all drawings, electronic media files, reports and other material provided to the Client unless otherwise agreed in writing. The Contractor may keep copies of all Work products. In the event that the Client should use any Work product from this Agreement on any future Projects unrelated to (or outside the scope or) the subject of this Agreement, the Client shall assume full responsibility for such use and shall hold the Contractor harmless from any claims, lawsuits or challenges to such subsequent use or performance. The Contractor shall have the right to change appropriate royalty fees from the Client for the additional use thereof. The Contractor shall have the right to display and distribute images of the system(s) as installed for purposes of advertising, promotion or subsequent research and development.

#### 18. Waiver.

No waiver by either party of any default or non-performance by either party shall be considered a waiver of any subsequent default or non-performance.

#### 19. Records Retention.

All records related to this Agreement shall be retained by both parties for a period of four (4) years after the conclusion of this Agreement. Records relating to any claim arising out of the performance of this Agreement or costs and expenses of this Agreement to which exception has been taken by either party shall be retained by the other party until the claim has been resolved.

#### 20. Severability.

In the event that any term, provision or covenant hereunder shall be held invalid or unenforceable by a court of competent jurisdiction, the remainder of this Agreement shall remain valid and enforceable by any party and the invalid unenforceable covenant shall automatically be deemed modified and amended to provide the maximum rights available under applicable law to the party who is the beneficiary of the covenant in question.

#### 21. Authority of Parties.

The individuals who have executed this Agreement on behalf of the respective parties expressly represent and warrant that they are authorized to sign on behalf of such entities for the purpose of duly binding such entities to this Agreement.

22. Right To Cancel. You, the buyer, may cancel this transaction at any time prior to midnight of the third business day after the date of this transaction.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

1st of 2 Signatures Required

CLIENT:

By:

Date: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Install address (if different): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Contact phone #: \_\_\_\_\_

Contact email: \_\_\_\_\_

2nd Signature - Attachement A  
Next Page

SOLAR ENERGY SOLUTIONS LLC

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**XX.XX kW Grid-tie Solar array**

Scope of Services:

- Design, Engineering, and management.
- Solar Module.
  - NUMBER (XX) SOLARMODULE XXXW modules with XX.X kW rated capacity, XX,XXX kWh estimated annual production.
  - Mounted on TYPE racking.
- Inverter
  - SolarEdge inverter with rapid disconnect.
- Battery
  - Tesla / gateway
- Wiring and installation PV
  - Solar Specific Disconnect.
  - Wiring from array to inverter.
  - Connection to electrical service.
  - Internet connection, setup and registration
- Wiring and installation Powerwall
  - Backup Gateway breakers and wiring
  - Powerwall installation
- Installation
  - All labor necessary for installation and commissioning of the system.
  - All consumables and small and miscellaneous parts.
  - All permitting, inspection, utility administration, and fees
- Warranties
  - 3-year full-service residential warranty or 1-year full-service commercial warranty.
  - Manufacturer's XX-year product warranty on the modules.
  - Manufacturer's XX-year power production warranty on the modules.
  - Manufacturer's XX-year inverter warranty.
  - Manufacturer's XX-year optimizer warranty.

**TOTAL COST INSTALLED**

**\$XX,XXX TOTAL COST(S)**

\$XX,XXX - 30% Federal Tax Credit

\$XX,XXX - X0% MACRs Bonus Depreciation (est.)

\$XX,XXX - X0% USDA REAP Grant

**\$X,XXX REALIZED COST**

Not  


2nd of 2 Signatures Required

CLIENT:

By: \_\_\_\_\_

Owner(s) Signature

Date: \_\_\_\_\_

SOLAR ENERGY SOLUTIONS LLC

By: \_\_\_\_\_

SES Signature

Date: \_\_\_\_\_

## SOLAR ENERGY SOLUTIONS QUALIFICATIONS **REQUIRED INFORMATION FROM CITY**

Solar Energy Solutions will collaborate closely with the City throughout the duration of this project. Our Project Manager, Patrick Little, brings extensive experience coordinating with a wide range of stakeholders, including municipal and governmental entities.

At this time, we anticipate needing additional information regarding any underground utilities located along the proposed trenching path to the transformer on the northeast side of the building. Additional information requests may arise as we prepare the permitting and interconnection applications.

We are committed to maintaining clear communication with the City and will promptly convey any further needs as detailed engineering is completed.



# SOLAR ENERGY SOLUTIONS QUALIFICATIONS REFERENCES

## SES Takes Pride in Being Highly Recommended by Customers

### **Bartholomew Consolidated School Corporation**

Brett Boezman  
Director of Operations  
1200 Central Avenue  
Columbus, IN 47201  
Email: boezemanb@bcsc.k12.in.us  
Tel: 812-378-4723

### **Sekisui**

Randy Hardwick  
Director of EHS & Kaizen  
1200 Rolling Hills Lane  
Winchester, KY 40391  
Email: randyh@sekisui-corp.com  
Tel: 859-338-7500

### **Brookfield Properties**

Kendall Merrick  
General Property Manager  
Oxmoor Mall  
7900 Shelbyville Road  
Louisville, KY 40222  
Email:  
kendall.merrick@brookfieldpropertiesretail.com  
Tel: 502-410-4238

### **City of Bloomington Indiana**

James (B.J.) Boruff  
Operations & Facilities Director  
401 N. Morton Street  
Bloomington, IN 47404  
Email: boruffj@bloomington.in.gov  
Tel: 812-349-3439

### **Owensboro Army Reserve Center**

Mr. Will Phillips, Energy Manager  
Minuteman Prkwy, Bldg 162  
Frankfort, KY 40601  
Tel: 502-607-1301

# SOLAR ENERGY SOLUTIONS QUALIFICATIONS

## APPENDICES

**Appendix A** - Located in the body of the proposal and attached in the submittal email as an Excel sheet

**Appendix B** - No additional Technical Data

**Appendix C** - Project Team Bios are included in the project team section.