

**JERSEY CENTRAL POWER & LIGHT**  
**INTERCONNECTION APPLICATION and AGREEMENT for LEVEL 2 OR LEVEL 3**  
**PROJECTS**

This Interconnection Agreement ("Agreement") is made and entered into this \_\_\_\_ day of Select, Select, by Jersey Central Power & Light Company, ("Electric Distribution Company" or "JCP&L"), and Rutgers University Insert Customer's Name ("Customer-Generator"), each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties". In consideration of the mutual covenants set forth herein, the Parties agree as follows:

- 1) **Scope and Limitations of Agreement.** This Agreement shall be used for all approved Level 2 and Level 3 Interconnection Requests according to the procedures set forth by the New Jersey Board of Public Utilities' ("NJ BPU") regulations. This Agreement is applicable to conditions under which JCP&L and the Customer-Generator agree that one or more generating facilities as further described in Attachment A, Application for Interconnection & Description of Generating Facility, attached hereto and made part of this Agreement, with an installed nameplate gross capacity of 67.30 kW AC, and are to be interconnected at distribution voltages that do not fall under PJM's jurisdiction, may be interconnected to JCP&L's system. The facility may be used for exporting retail electricity to JCP&L's distribution system only as required for specific NJ BPU net metering regulations. Other than these regulations pertaining to netting generation credits for excess generation, this Agreement does not constitute an agreement to purchase or deliver the Customer-Generator's power. This Agreement is not applicable to purchases of power under any JCP&L Qualifying Facility power purchase tariff, or for wholesale transactions as defined by the Federal Energy Regulatory Commission ("FERC"), and which are included as part of a PJM Wholesale Market Participation Agreement ("WMPA"). A WMPA uses a separate form of Interconnection Agreement with JCP&L.
- 2) **Construction of the Customer-Generator Facility.** The Customer-Generator may proceed to construct the Customer-Generator Facility once the approval to install the Customer-Generator Facility has been received from JCP&L. The Customer-Generator Facility shall be constructed in accordance with information provided in the Interconnection Application, the National Electrical Code ("NEC"), IEEE 1547, the NJ BPU's regulations and FirstEnergy's Generator Interconnection Technical Requirements (EP# 02-280, Interconnection of Customer-Owned Generation to The FirstEnergy

Distribution System, Part C), and FirstEnergy's Requirements for Transmission Connected Facilities (if applicable).

The Applicant shall notify JCP&L of any changes to the originally proposed Level 2 or 3 Customer-Generator Facility that would be subject to further review (e.g., Inverter Manufacturer/Model Number, Size, etc.).

Once an Interconnection Request is deemed complete, any modification to the proposed Customer-Generator Facility that would affect the application review criteria for a Level 2 or 3 project, and is not agreed to in writing by JCP&L, shall require submission of a new Interconnection Application.

- 3) **Interconnection.** The Customer-Generator may interconnect and operate the Customer-Generator Facility with JCP&L's system once all of the following conditions precedent have been satisfied:
- a) **Electrical Inspection:** Upon completing construction, the Customer-Generator shall have the Customer-Generator Facility inspected, or otherwise certified, by the local electrical wiring inspection authority having jurisdiction to ensure that the facility meets the requirements of the NEC.
  - b) **Certificate of Completion:** a) Certificate of Completion: The Applicant shall provide JCP&L with a completed copy of Attachment B, the Certificate of Completion, attached hereto and made part of this Agreement, including evidence of completion of the electrical inspection for compliance with the National Electrical Code, signed by the local authority having jurisdiction. The evidence of completion of the electrical inspection may be provided on inspection forms used by local inspecting authorities.
  - c) **Inspection:** JCP&L has either completed its inspection or waived the right to inspection in this Agreement. After receipt of the Certificate of Completion, JCP&L may, upon reasonable notice and at a mutually convenient time, conduct an inspection of the Customer-Generator Facility and observe a Witness Test to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with its requirements. "Witness Test" means the verification by an on-site observation by JCP&L that the interconnection installation evaluation required by Section 5.3 of IEEE Standard 1547 and the commissioning test required by Section 5.4 of IEEE Standard 1547 have been adequately performed.

- d) Metering<sup>1</sup>: Revenue quality metering equipment shall be installed and tested by JCP&L. JCP&L may choose to schedule the Witness Test also at this time. The Customer-Generator may be responsible for the cost of the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment. The Customer-Generator may also be required to provide a voice-quality phone line within 3 feet of the meter to allow JCP&L to remotely interrogate the meter.
- e) Breaker Trip Control: Generators 2 MW and greater will require remote generator trip/isolation control by JCP&L's system operations control center via a local SCADA unit or similar device.
- f) Acceptance: JCP&L's representative has signed and returned the Certificate of Completion or provided notification by electronic mail or other acceptable means that the requirements for interconnection are complete and interconnection of the Customer-Generator Facility is accepted for parallel operation.
- g) Special Procedures for Parallel Operation: Once the Customer-Generator Facility has been authorized to commence parallel operation, the Customer-Generator shall abide by any special written rules and procedures developed by JCP&L which pertain to the parallel operation of the Customer-Generator Facility, and which are clearly specified in Attachment C of this Agreement.

**4) Operation:**

- a) Applicable Standards: The Customer-Generator shall construct, own, operate, and maintain its Customer-Generator Facility in accordance with this Agreement, IEEE Standard 1547, the National Electrical Safety Code ("NESC"), the NEC, and applicable standards promulgated by the NJ BPU.
- b) Areas of Responsibility: Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair, and condition of its respective lines and appurtenances on its respective side of the Point of Common Coupling.
- c) Minimization of Adverse System Impact: The Customer-Generator agrees to design, install, maintain, and operate its Customer-Generator Facility so as to

---

<sup>1</sup> At JCP&L's option, a simple meter exchange may occur after the approval to operate is issued.



minimize the likelihood of causing an adverse system impact on an electric system that is not owned or operated by JCP&L.

- d) **Reactive Power:** The Customer-Generator shall design its Customer-Generator Facility to maintain a composite power delivery at continuous rated power output at the Point of Common Coupling at a power factor within the power factor range required by JCP&L's applicable tariff for a comparable load customer.
- 5) **Periodic Testing.** All interconnection-related protective functions and associated batteries shall be periodically tested at intervals specified by the manufacturer, system integrator, or other authority that has jurisdiction over the Customer-Generator Facility interconnection. Periodic test reports or a log for inspection shall be maintained.
- 6) **Safe Operations and Maintenance.** The Customer-Generator shall be fully responsible to operate, maintain, and repair the Customer-Generator Facility as required to ensure that the Customer-Generator Facility complies at all times with the interconnection standards it has been certified to meet.
- 7) **Access.** JCP&L shall have access to the metering equipment and the disconnecting means of the Customer-Generator Facility at all times. JCP&L shall provide reasonable notice to the Customer-Generator, when possible, prior to using its right of access. In an emergency or outage situation, where there is no access to an AC disconnecting means such as a switch or breaker, JCP&L may disconnect the service to the premise.
- 8) **Exterior AC Disconnect Switch / Isolation Device.** Small generator facilities shall be capable of being isolated from JCP&L by means of a lockable, visible-break isolation device accessible by JCP&L in accordance with NEC requirements. The isolation device shall be installed, owned and maintained by the Customer-Generator and located between the small generation facility and the point of interconnection. A draw-out type circuit breaker with a provision for padlocking at the draw-out position can be considered an isolation device for purposes of this requirement. A Customer-Generator may elect to provide JCP&L access to an isolation device that is contained in a building or area that may be unoccupied and locked, or not otherwise readily accessible to JCP&L, by installing a lockbox for use solely by JCP&L for obtaining access to the isolation device. The Customer-Generator shall install the lockbox in a location that is readily accessible by JCP&L and the Customer-Generator, and shall permit JCP&L to affix a placard in a location of its choosing that provides clear instructions to JCP&L operating personnel on access to the isolation device. The Customer-Generator, at its option, may provide and install this placard.

- 9) **Conflicts in Agreements.** Nothing in this Agreement is intended to affect any other agreement between JCP&L and the Customer-Generator. However, in the event that the provisions of this Agreement are in conflict with the provisions of JCP&L's tariff, JCP&L's tariff shall control.
- 10) **Disconnection.** JCP&L may temporarily disconnect the Customer-Generator Facility upon occurrence of any of the following conditions:
- a) For scheduled outages upon reasonable notice,
  - b) For unscheduled outages or emergency conditions,
  - c) If JCP&L determines that the Customer-Generator Facility does not operate in a manner consistent with this Application/Agreement,
  - d) If JCP&L determines that continued operation of the Customer-Generator Facility is a safety hazard to JCP&L's personnel or to the general public,
  - e) In the event the interconnection equipment used by the Customer-Generator Facility is de-listed by the Nationally Recognized Testing Laboratory that provided the listing at the time the interconnection was approved and JCP&L ascertains that the continued operation has the potential to cause a safety, reliability or a power quality problem.
- 11) **Customer-Generator Billing and Payment:**
- a) **Payment for Interconnection Facilities:** The Customer-Generator shall pay for the cost of the Interconnection Facilities itemized in Attachment D of this Agreement. If a study was performed, JCP&L shall identify the Interconnection Facilities necessary to safely interconnect the Customer-Generator's facility with JCP&L's Electric Distribution System, the cost of those facilities, and the time required to build and install those facilities. Generally this estimate will constitute the entire cost responsibility of the Customer-Generator. However, at the option of the Company or if requested by the customer, prior to incurring any costs for any construction or additional studies, said costs may be deemed to be subject to a true up to actual costs in accordance with paragraph c) below. Depending on the complexity of the proposed facility, the studies, engineering and construction may require multiple agreements.
  - b) **Scope of Cost for Interconnection Facilities:** JCP&L shall bill the Customer-Generator for the design, engineering, procurement, construction, and commissioning costs of JCP&L provided interconnection facilities and distribution upgrades contemplated by this Agreement as set forth in Attachment E, on a



monthly basis, or as otherwise agreed by the Parties. The Customer-Generator shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties.

- c) **True-Up of Actual Costs:** Within one hundred and twenty (120) calendar days of completing the construction and installation of JCP&L's interconnection facilities and Distribution Upgrades described in the Attachments D and E to this Agreement, JCP&L shall provide the Customer-Generator with a final accounting report of any difference between (1) the actual cost incurred to complete the construction and installation and the budget estimate provided to the Customer-Generator and a written explanation for any significant variation; and (2) the Customer-Generator's previous deposit and aggregate payments to JCP&L for such interconnection facilities and distribution upgrades. If the Customer-Generator's cost responsibility exceeds its previous deposit and aggregate payments, JCP&L shall invoice the Customer-Generator for the amount due and the Customer-Generator shall make payment to JCP&L within thirty (30) calendar days. If the Customer-Generator's previous deposit and aggregate payments exceed its cost responsibility under this Agreement, JCP&L shall refund to the Customer-Generator an amount equal to the difference within thirty (30) calendar days of the final accounting report.
  - d) **Deposit:** At least twenty (20) business days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of JCP&L's interconnection facilities and distribution upgrades, the Customer-Generator shall provide JCP&L with a deposit equal to 100% of the estimated costs prior to its beginning design of such facilities.
  - e) **Modification of the Customer-Generator Facility:** The Customer-Generator must receive written authorization from JCP&L prior to making any change to the Customer-Generator Facility, other than a minor equipment modification, that could cause an Adverse System Impact. If the Customer-Generator makes such modification without JCP&L's prior written authorization, JCP&L shall have the right to temporarily disconnect the Customer-Generator Facility until such time as JCP&L reasonably concludes the modification poses no threat to the safety or reliability of its Electric Distribution System.
- 12) **Insurance.** For generator facilities with a Nameplate Capacity of 2 MW or above, the Customer-Generator shall carry adequate insurance coverage that shall be acceptable

to JCP&L; provided, that the maximum comprehensive/general liability coverage that shall be continuously maintained by the Customer-Generator during the term shall be not less than \$2,000,000 for each occurrence, and an aggregate, if any, of at least \$4,000,000. JCP&L, its officers, employees and agents will be added as an additional insured on this policy.

- 13) **Customer-Generator Indemnification.** To the fullest extent permitted by law, Customer-Generator shall indemnify, defend, and hold harmless JCP&L, any and all of the members of its governing bodies, and its officers, agents, and employees ("JCP&L Indemnifieds") for, from, and against any and all claims, demands, suits, costs of defense, attorneys' fees, witness fees of any type, losses, damages, expenses, and liabilities, whether direct, indirect or consequential, personal injury, death, or occupational disease of any person, including, but not limited to, all Contractor's or Subcontractor's employees or agents; or due to loss or damage to any real or personal property tangible or intangible; which in whole or in part arise out of, are related to, arise from, or are in any way connected with: (a) Customer-Generator's or any non-JCP&L party's design, construction, installation, inspection, maintenance, testing or operation of the Customer-Generator Facility or equipment used in connection with this Agreement; (b) the interconnection of the Customer-Generator Facility with, and delivery of energy from the Customer-Generator Facility to, JCP&L's electrical distribution system; or (c) the performance or nonperformance of Customer-Generator's obligations under this Agreement. It is the intent of JCP&L and Customer-Generator that JCP&L shall, in all instances except for loss or damage resulting from the sole negligence of JCP&L, be indemnified against all liability, loss, or damage of any nature whatsoever for or on account of any injuries or death of person(s) or damages to or destruction of property belonging to any person arising out of, or in any way connected with, Customer-Generator's performance of this Agreement and the interconnection of the Customer-Generator Facility. Customer-Generator's obligations under this Section shall survive the termination of this Agreement.
- 14) **Limitation of Liability.** JCP&L'S TOTAL LIABILITY TO THE CUSTOMER-GENERATOR FOR ALL CLAIMS OR SUITS OF ANY KIND, WHETHER BASED UPON CONTRACT, TORT (INCLUDING NEGLIGENCE), WARRANTY, STRICT LIABILITY OR OTHERWISE, FOR ANY LOSSES, DAMAGES, COSTS OR EXPENSES OF ANY KIND WHATSOEVER ARISING OUT OF, RESULTING FROM, OR RELATED TO THE PERFORMANCE OR BREACH OF THIS CONTRACT SHALL, UNDER NO CIRCUMSTANCES, EXCEED THE FINAL COST OF ANY INTERCONNECTION



FACILITIES PAID FOR BY THE CUSTOMER-GENERATOR. JCP&L SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL LOSSES, DAMAGES, COSTS, OR EXPENSES WHATSOEVER (INCLUDING, BUT NOT LIMITED TO, LOST OR REDUCED PROFITS, REVENUES, EFFICIENCY, PRODUCTIVITY, BONDING CAPACITY, OR BUSINESS OPPORTUNITIES, OR INCREASED OR EXTENDED OVERHEAD, OPERATING, MAINTENANCE OR DEPRECIATION COSTS AND EXPENSES).

- 15) **Termination.** This Application/Agreement may be terminated under the following conditions:
  - a) By Customer-Generator. The Customer-Generator may terminate this Application/Agreement by providing written notice to JCP&L.
  - b) By JCP&L. JCP&L may terminate this Application/Agreement if the Customer-Generator fails to remedy a violation of terms of this Application/Agreement after providing written notice and a reasonable opportunity to cure.
- 16) **Permanent Disconnection.** In the event the Application/Agreement is terminated, JCP&L shall have the right to disconnect its facilities or direct the Customer-Generator to disconnect its Customer-Generator Facility.
- 17) **Survival Rights.** This Application/Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill its rights or obligations that arose under the Application/Agreement.
- 18) **Assignment/Transfer of Ownership of the Customer-Generator Facility.** The rights granted to the Customer-Generator under this Application/Agreement shall not survive the transfer of ownership of the Customer-Generator Facility to a new owner unless the new owner agrees to the assignment/transfer of this Application/Agreement and accepts the concomitant responsibilities, and so notifies JCP&L in writing within fifteen (15) days of such transfer of ownership. In order for the new owner to be treated as a Net Metering customer for billing purposes, the new owner shall be responsible for providing legal evidence to JCP&L of an assignment of the existing Application/Agreement, or if the existing agreement has terminated under this provision, a new Application/Agreement will be required before Net Metering will be reinstituted.
- 19) **No Third Party Beneficiaries.** This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons,



corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

- 20) **No Waiver.** The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered to waive the obligations, rights, or duties imposed upon the Parties.
- 21) **Definitions.** Capitalized terms used herein, and the definitions of such terms, are as those used in N.J.A.C. 14:8-4.2 Net Metering and Interconnection Standards for Class I Renewable Energy Systems.
- 22) **Notice.** Unless otherwise provided in this Application/Agreement, any written notice, demand or request required or authorized in connection with this Application/Agreement ("Notice") shall be deemed properly given if delivered in person, sent by Electronic Mail (E-mail), sent by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

**If to JCP&L:**

The contact listed on the JCP&L website as the primary contact for JCP&L listed in the Customer-Generator's Facility Information section in Attachment A of this Interconnection Agreement.

**If to Customer-Generator:**

The contact listed in the Legal Name and Mailing Address of Customer-Generator section on Attachment A of this Interconnection Application. The Customer-Generator is responsible for notifying JCP&L of any change in the contact party information.

In the event the original applicant sells or otherwise transfers ownership of the property listed in the Customer-Generator Facility's Information section listed in Attachment A of the Interconnection Agreement, the original applicant shall provide JCP&L with the appropriate contact information for the new owner of the property. Upon any subsequent transfer of ownership, the then current owner shall provide JCP&L with the new owner's information.

- 23) **Governing Law and Regulatory Authority.** This Agreement shall be governed by, interpreted, construed, and enforced in accordance with the laws of the State of New Jersey. This Agreement is subject to, and the Parties' obligations hereunder include, operating in full compliance with all valid, applicable federal, state, and local laws or

ordinances, and all applicable rules, regulations, orders of, and tariffs approved by duly constituted regulatory authorities having jurisdiction.

- 24) **Amendments:** There will be no changes or amendments to this form of Agreement unless specifically agreed to by all Parties in writing prior to the interconnection application being deemed complete. Notwithstanding the foregoing, the only amendments to this form of Agreement that will be considered are those which may be necessary due to the status of a Customer-Generator as a public or governmental entity.
- 25) **Entire Agreement:** This Agreement, together with any attachments or exhibits specifically referenced herein, constitutes the entire agreement between the Parties with respect to the subject matter hereof, supersedes all prior oral or written representations and contracts, and may be modified only by a written amendment signed by all Parties.
- 26) **Multiple Counterparts.** This Agreement may be executed in two counterparts, each of which is deemed an original but all constitute one and the same instrument.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed by their respective duly authorized representatives.

Jersey Central Power & Light Company

BY: \_\_\_\_\_

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

Customer-Generator Rutgers University

BY: Michael Kornitas  
Michael Kornitas (Nov 2, 2022 12:27 EDT)

NAME: Michael Kornitas

TITLE: Director of Sustainability and Ene

DATE: Nov 2, 2022

**Attachment A**  
**Application for Service and Description of Facility**

For a Level 2 or 3 Interconnection Agreement 1 \* Indicates Required Entry

\* ☐ New ☒ Revision to Open App ☐ Incremental Addition to Existing Generation ☐ Community Solar

**Legal Name and Mailing Address of Customer-Generator: (if an Individual, Individual's Name)**

\*Name: Rutgers University  
\*Mailing Address: Fund 247090 BLG 6336 OCOC, 140 Locust Grove Road, BLD 6372  
\*City: Pittstown State: NJ \*Zip Code: 08867  
Contact Person (If other than above): Michael Kornitas  
Mailing Address (If other than above):  
\*Telephone (Daytime): 848-565-0429 (Evening):  
Facsimile Number: \*E-Mail Address: michael.kornitas@rutgers.edu

**Alternative Contact Information: (if different from Customer-Generator above)**

Name: Kathleen Vandegrift  
Mailing Address: Advanced Solar Products, Inc. 270 South Main Street, Suite 203  
City: Flemington State: NJ Zip Code: 08822  
Telephone (Daytime): 908-751-5818 (Evening):  
Facsimile Number: 908-751-5819 E-Mail Address: registration@advancedsolarproducts.com

**The Customer-Generator Facility's Information (Where Generator will be interconnected):**

\*Facility Address: 140 Locust Grove Road  
\*City: Pittstown State: NJ \*Zip Code: 08867  
\*Account #: 1000 02 366 829 Meter #: G28159374  
\*Utility Accessible Disconnect or Lock Box: Disconnect - Next to Meter  
\*Electric Generation Supplier (if different from JCP&L):  
\*Service Capacity: 225 (Amps) \*Voltage: 480 (volts) \*Number of Phases: Select 3  
\*If 3-Phase Customer Owned Transformer? ☐ Yes ☒ No <sup>2</sup> (See footnote for JCP&L Owned Transformer)  
If Yes: Primary Winding: ☐ Wye ☐ Delta If Yes: Secondary Winding: ☐ Wye ☐ Delta  
\*If Customer Owned: Percentage Impedance: % \*Transformer Size: (kVA)  
\*Do you plan to export power? Yes, Occasionally - No net monthly export  
\*If Yes, Estimated Maximum: 67.3 kW<sub>AC</sub>, \*Estimated Gross Annual Energy Production: 94373 kWh  
\*Current Annual Energy Consumption: 25335 kWh System under Remote Net Metering  
\*Energy Source: Solar Photovoltaic \*Rating 67.30 kW<sub>AC</sub> or DC

<sup>1</sup> Customers proposing to install generation greater than 2,000 kW are required to contact their JCP&L for the appropriate application procedures.

<sup>2</sup> Do not contact JCP&L for Transformer data. JCP&L will provide the winding & impedance information for JCP&L transformers. If needed for system design purposes, the kVA rating is located below the secondary connections in black numerals on pole mounted transformers & on the top front or above the locking mechanism on pad mount transformers.



**Equipment Installation Contractor:** Indicate by owner if applicable ☐

Name: Advanced Solar Products, Inc.

Mailing Address: 270 South Main Street, Suite 203

City: Flemington State: NJ Zip Code: 08822

Contact Person (If other than Above): Kathleen Vandegrift

Telephone (Daytime): 908-751-5818

(Evening): \_\_\_\_\_

Facsimile Number: 908-751-5819

E-Mail: registration@advancedsolarproducts.com

**Electrical Contractor: (If Applicable)**

Indicate if not applicable ☐

Name: Lighton Industries

Mailing Address: 801 Corporate Circle #1A

City: Toms River State: NJ Zip Code: 08755

Contact Person (If other than Above): George Duncan

Telephone (Daytime): 732-901-8625 ext.244

(Evening): \_\_\_\_\_

Facsimile Number: 732-901-9284

E-Mail: george@lightonindustries.com

**Consulting Engineer: (If Applicable)**

Indicate if not applicable ☐

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

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Contact Person (If other than Above): \_\_\_\_\_

Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_

Facsimile Number: \_\_\_\_\_ E-Mail: \_\_\_\_\_

**\*Level of Review:**

☒ Level 2 – Certified, Inverter based, Up to 2,000 kW – Application Fee = \$50 + \$1 / kW AC

☐ Level 3 – All projects over 2000 kW and all other projects that don't qualify for Level 2 -  
Application Fee = \$100 + \$2 / kW AC

**\*Intent of Generation:** (\* Denotes Mandatory Response)

Offset Load (Unit will operate in parallel, but will not export power to JCP&L) \* ☐ Yes ☐ No

Net Meter (Unit will operate in parallel with JCP&L and may export power pursuant to New Jersey Net Metering or other filed tariff(s)) \* ☒ Yes ☐ No

Wholesale Market Transaction (Unit will operate in parallel with JCP&L and participate in PJM market(s) pursuant to a PJM Wholesale Market Participation Agreement) & may be eligible to export energy \* ☐ Yes ☒ No. If "Yes", please contact PJM to continue application process.

**PJM Demand Response Market Participant** (System will not export energy)

Energy, Capacity, Load Reduction &/or Synchronized Reserve Markets \* ☐ Yes ☐ No

Regulation Market \* ☐ Yes ☐ No (If Yes, Please contact JCP&L for supplemental information form)

Back-up Generation (Units that temporarily parallel with the JCP&L system) \* ☐ Yes ☒ No

**Documents required with this application**

\*Application Fee Attached: ☐ Yes ☐ No

\*One-line Diagram Attached (Required): ☒ Yes ☐ No    \*Site Plan Attached (Required): ☐ Yes ☐ No

\*Generator data page for each type of generation as identified on Pages 4, 5, and 6. Check all that apply: ☒ Inverter ☐ Synchronous ☐ Induction ☐ Frequency Regulation (Please contact JCP&L for Supplemental Form)

**Customer-Generator Insurance Disclosure:**

The attached Terms and Conditions contain provisions related to liability, and indemnification and should be carefully considered by the Customer-Generator. The Customer-Generator is not required to obtain liability insurance coverage as part of this Agreement for installations less than 2 MW; however, the Customer-Generator is advised to consider obtaining appropriate coverage.

**Customer-Generator Signature:**

I hereby certify that: 1) I have read and understand the Terms and Conditions which are attached hereto by reference and are made a part of this Agreement. 2) The Equipment Installation Contractor may be acting on behalf of the Customer-Generator and JCP&L (as defined) is authorized to act in reliance upon the Equipment Installation Contractor's relationship with the Customer-Generator. 3) The Applicant shall notify JCP&L of any changes to the proposed Customer-Generator Facility that would be subject to the criteria for the Level of review (e.g., Electrical Contractor / Installer, Inverter Manufacturer/Model Number, size, etc.). 4) Once an Interconnection Request is deemed complete, any modification to the proposed Customer-Generator Facility that would affect the application review criteria for the Level of review that is not agreed to in writing by JCP&L, shall require submission of a new Interconnection Request. and 5) To the best of my knowledge, all of the information provided in this Interconnection Application/Agreement is true and I agree to abide by the attached Terms and Conditions for Interconnection, including the application process set forth therein.

\*Customer-Generator Signature: Michael Kornitas    \*Date: Nov 2, 2022  
Michael Kornitas (Nov 2, 2022 12:27 EDT)

\*Printed Name: Michael Kornitas    \*Title: Director of Sustainability an

Email Address: michael.kornitas@rutgers.edu

**Conditional Approval to Interconnect Customer-Generator Facility: (for Use by JCP&L Only)**

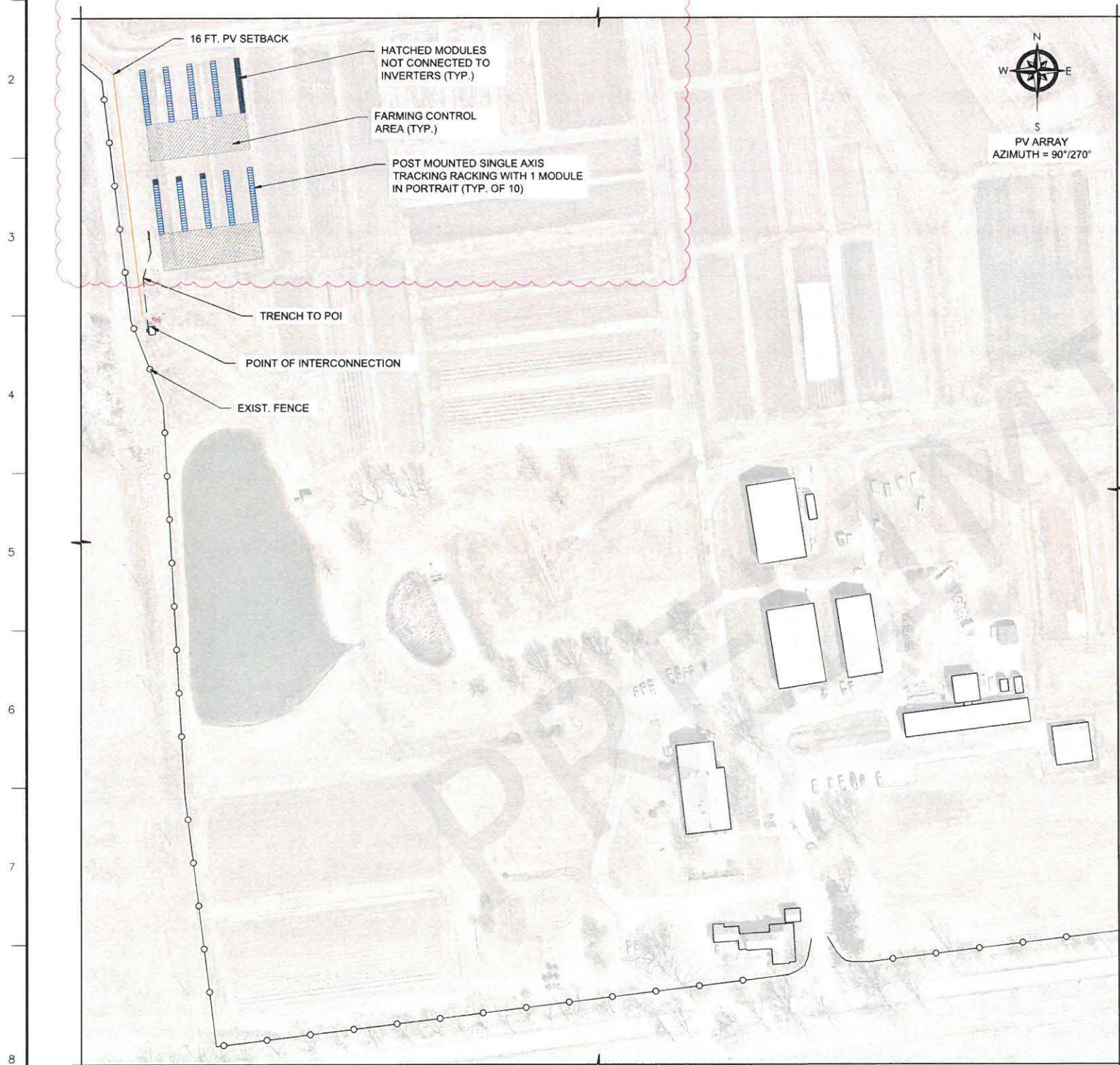
The requested information is complete and interconnection of the Customer-Generator Facility is approved contingent upon the Terms and Conditions of this Agreement, the return of a duly executed Certificate of Completion, verification of electrical inspection, successful witness test or JCP&L waiver thereof and upon signature and return of this Part 1 or by notification by electronic mail or other acceptable means by JCP&L.

JCP&L Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



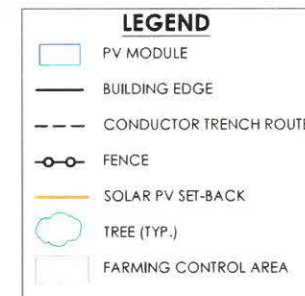
**SOLAR PHOTOVOLTAIC SYSTEM SUMMARY:**  
SYSTEM SIZE = 82.35 KW DC (@STC); 67.30 KW AC  
(183) ZNSHINE SOLAR (ZXM6-NHDD144-450/M) 450 WATT MODULES  
(6) PARALLEL STRINGS OF (21) MODULES IN SERIES PER STRING  
(3) PARALLEL STRINGS OF (19) MODULES IN SERIES PER STRING  
(1) SOLAREEDGE SE50KUS INVERTER  
(1) SOLAREEDGE SE17.3KUS INVERTERS  
POST MOUNTED SINGLE AXIS TRACKER



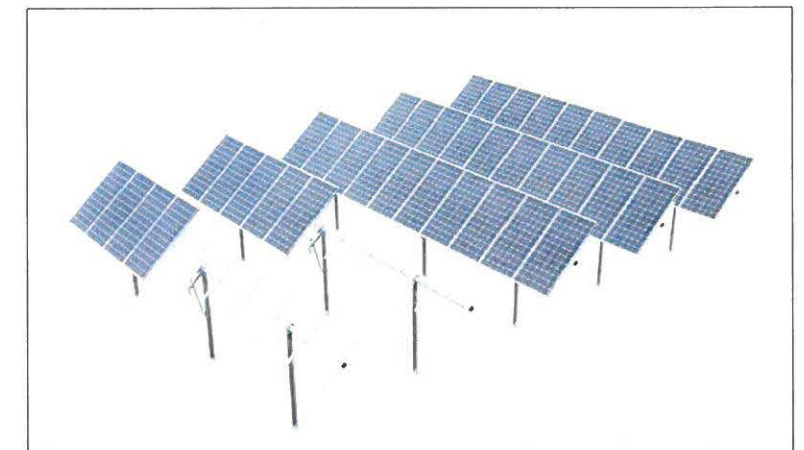
**2 SOLAR PV ARRAY - SITE PLAN (PLAN VIEW)**  
SCALE: AS SHOWN



**4 STATE COUNTY MAP**  
HUNTERDON COUNTY, NJ



**1 SITE VICINITY MAP**  
SCALE: N.T.S.



**3 SINGLE AXIS TRACKING RACKING**  
SCALE: N.T.S.

REVISIONS			
NO.	DESCRIPTION	BY	DATE
2	SYSTEM SIZE REDUCTION	AR	10/24/22
1	RNM SYSTEM REVISION	AR	9/12/22

**PROJECT TITLE:**  
RUTGERS AGRIVOLTAICS PROGRAM  
SOLAR PHOTOVOLTAIC SYSTEM

**SITE:**  
SNYDER FARMS  
140 LOCUST GROVE ROAD  
PITTSFORD, NEW JERSEY 08867

**OWNER:**  
RUTGERS UNIVERSITY  
57 US HIGHWAY 1  
NEW BRUNSWICK, NEW JERSEY 08901

**ADVANCED SOLAR PRODUCTS**  
270 SOUTH MAIN STREET  
FLEMINGTON, NJ 08822  
908-751-5818 (PHONE)  
908-751-5819 (FAX)  
lyle@advancedsolarproducts.com

NJ CERTIFICATE OF AUTHORIZATION LICENSE  
NO.: 24GA28102500

<b>DRAWN:</b> ADR	<b>DATE:</b> 07/26/2022
<b>CHECKED:</b>	<b>DATE:</b>
<b>SCALE:</b> AS SHOWN	<b>DWG. NO.:</b> E-2
<b>DRAWING TITLE:</b> SITE PLAN	

**FOR INTERCONNECTION**

ANTHONY TIMOTHY LOMMA, P.E.  
NJ PROFESSIONAL ENGINEER  
LIC. #24GE04553700



NOTES:

A) CODES AND STANDARDS:  
ALL EQUIPMENT, MATERIALS, AND METHODS SHALL MEET THE FOLLOWING CODES AND STANDARDS:  
- NATIONAL ELECTRICAL CODE, 2017 ED.  
- UL 1741  
- UL 1703  
- UL 1699B  
- IEEE 929-2000  
- ALL OTHER APPLICABLE NATIONAL, STATE AND LOCAL CODES

B) SIGNAGE NOTES:

1. WARNING. THIS FACILITY IS SERVED BY A PHOTOVOLTAIC GENERATING SOURCE. THE PHOTOVOLTAIC AC DISCONNECT MEANS IS LOCATED ADJACENT TO THIS PANEL. THE PHOTOVOLTAIC DC DISCONNECT MEANS ARE LOCATED WITHIN THE INVERTERS.

2. ALL AC & DC FUSES & DISCONNECTS TO BE LABELED: WARNING. ELECTRIC SHOCK HAZARD. DO NOT TOUCH TERMINALS. TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION.

3. SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN. DISCONNECT AC POWER TO THE INVERTERS TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN ARRAY.

4. PV SYSTEM DISCONNECT

C) PV SOURCE CIRCUITS TO BE COLOR CODED AS FOLLOWS:  
BLACK = NEGATIVE RED = POSITIVE

D) ALL CONDUCTORS TO BE STRANDED COPPER EXCEPT WHERE SPECIFIED OTHERWISE.

E) DESIGN HIGH AMBIENT TEMPERATURE = 34°C  
& DESIGN LOW AMBIENT TEMPERATURE = -17°C  
(DESIGN TEMPERATURES PER ASHRAE HANDBOOK FUNDAMENTALS 2021.)

F) MAXIMUM OF (2) STRINGS PER SYNERGY UNIT INPUT

G) INVERTERS TO BE INSTALLED WITHIN LINE-OF-SIGHT AND WITHIN 10FT OF PV AC COMBINER PANEL.

**SOLAR PHOTOVOLTAIC SYSTEM SUMMARY:**  
SYSTEM SIZE = 82.35 KW DC (@STC); 67.30 KW AC  
(183) ZNSHINE SOLAR (ZXM6-NHLLD144-450/M) 450W MODULES  
(6) STRINGS OF (21) MODULES IN SERIES PER STRING  
(1) SOLAREDGE SE50KUS INVERTER  
(1) SOLAREDGE SE17.3KUS INVERTERS  
(96) SOLAREDGE P1101 OPTIMIZERS

EQUIPMENT SPECIFICATIONS

ZNSHINE SOLAR (ZXM6-NHLLD144-450/M) 450W MODULE:

PEAK POWER (+5W/-0W)	Pmax	450 W
OPERATING VOLTAGE	Vmp	42.1 V
OPERATING CURRENT	Imp	10.70 A
OPEN CIRCUIT VOLTAGE	Voc	50.5 V
SHORT CIRCUIT CURRENT	Isc	11.35 A

SOLAREDGE P1101 OPTIMIZER:

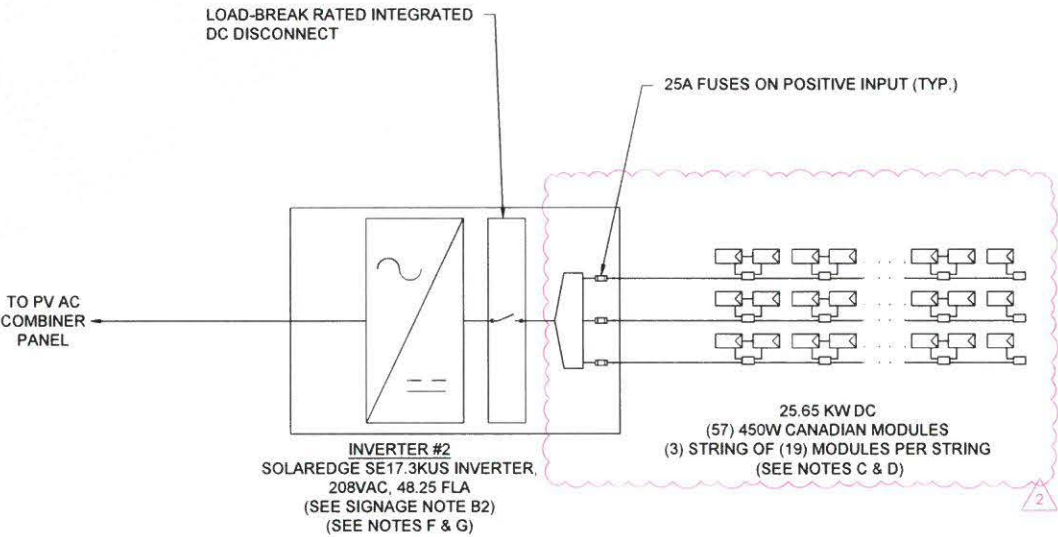
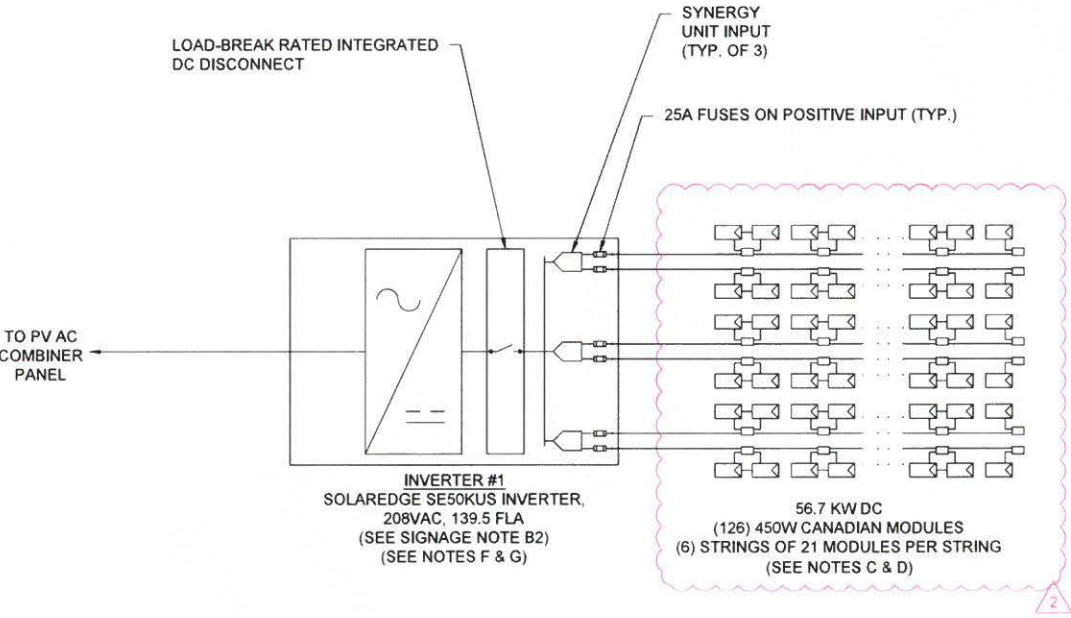
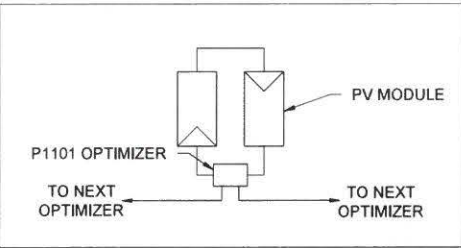
RATED DC INPUT POWER	1100 W
MAXIMUM INPUT SHORT CIRCUIT CURRENT	14.1 ADC
MAXIMUM INPUT VOLTAGE	125 VDC
MAXIMUM OUTPUT CURRENT	18 ADC
MAXIMUM OUTPUT VOLTAGE	80 VDC

SOLAREDGE SE50KUS:

MAXIMUM OUTPUT POWER	50 KW
AC OUTPUT VOLTAGE (3Φ)	208 VAC
AC MAXIMUM OUTPUT CURRENT	139.5 A
DC MAXIMUM INPUT VOLTAGE	600 VDC

SOLAREDGE SE17.3KUS:

MAXIMUM OUTPUT POWER	17.3 KW
AC OUTPUT VOLTAGE (3Φ)	208 VAC
AC MAXIMUM OUTPUT CURRENT	48.25 A
DC MAXIMUM INPUT VOLTAGE	600 VDC



REVISIONS			
NO.	DESCRIPTION	BY	DATE
2	SYSTEM SIZE REDUCTION	AR	10/24/22
1	RNM SYSTEM REVISION	AR	9/12/22

PROJECT TITLE:  
RUTGERS AGRIVOLTAICS PROGRAM  
SOLAR PHOTOVOLTAIC SYSTEM

SITE:  
SNYDER FARMS  
140 LOCUST GROVE ROAD  
PITTSFORD, NEW JERSEY 08867

OWNER:  
RUTGERS UNIVERSITY  
57 US HIGHWAY 1  
NEW BRUNSWICK, NEW JERSEY 08901

ADVANCED SOLAR PRODUCTS  
270 SOUTH MAIN STREET  
FLEMINGTON, NJ 08822  
908-751-5818 (PHONE)  
908-751-5819 (FAX)  
tyle@advancedsolarproducts.com

NJ CERTIFICATE OF AUTHORIZATION LICENSE  
NO.: 24GA28102500

DRAWN: ADR DATE: 07/26/2022  
CHECKED: DATE:  
SCALE: NONE DWG. NO.: E-3-1A

DRAWING TITLE:  
ONE LINE DIAGRAM - DC

FOR INTERCONNECTION

ANTHONY TIMOTHY LOMMA, P.E.  
NJ PROFESSIONAL ENGINEER  
LIC #24GE04553700

NOTES:

A) CODES AND STANDARDS:  
ALL EQUIPMENT, MATERIALS, AND METHODS SHALL MEET THE FOLLOWING CODES AND STANDARDS:  
- NATIONAL ELECTRICAL CODE, 2017 ED.  
- UL 1741  
- UL 1703  
- UL 1699B  
- IEEE 929-2000  
- ALL OTHER APPLICABLE NATIONAL, STATE AND LOCAL CODES

B) SIGNAGE NOTES:

1. WARNING. THIS FACILITY IS SERVED BY A PHOTOVOLTAIC GENERATING SOURCE. THE PHOTOVOLTAIC AC DISCONNECT MEANS IS LOCATED ADJACENT TO THIS PANEL. THE PHOTOVOLTAIC DC DISCONNECT MEANS ARE LOCATED WITHIN THE INVERTERS.
2. ALL AC & DC FUSES & DISCONNECTS TO BE LABELED: WARNING. ELECTRIC SHOCK HAZARD. DO NOT TOUCH TERMINALS. TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION.
3. SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN. DISCONNECT AC POWER TO THE INVERTERS TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN ARRAY.
4. PV SYSTEM DISCONNECT

C) PV SOURCE CIRCUITS TO BE COLOR CODED AS FOLLOWS:  
BLACK = NEGATIVE      RED = POSITIVE

D) ALL CONDUCTORS TO BE STRANDED COPPER  
EXCEPT WHERE SPECIFIED OTHERWISE.

E) DESIGN HIGH AMBIENT TEMPERATURE = 34°C  
& DESIGN LOW AMBIENT TEMPERATURE = -17°C  
(DESIGN TEMPERATURES PER ASHRAE HANDBOOK FUNDAMENTALS 2021).

F) MAXIMUM OF (2) STRINGS PER SYNERGY UNIT INPUT

G) INVERTERS TO BE INSTALLED WITHIN LINE-OF-SIGHT AND WITHIN 10FT OF PV AC COMBINER PANEL.

**SOLAR PHOTOVOLTAIC SYSTEM SUMMARY:**  
SYSTEM SIZE = 82.35 KW DC (@STC); 67.30 KW AC  
(183) ZNSHINE SOLAR (ZXM6-NHLLD144-450/M) 450W MODULES  
(6) STRINGS OF (21) MODULES IN SERIES PER STRING  
(3) STRINGS OF (19) MODULES IN SERIES PER STRING  
(1) SOLAREDGE SE50KUS INVERTER  
(1) SOLAREDGE SE17.3KUS INVERTERS  
(96) SOLAREDGE P1101 OPTIMIZERS

EQUIPMENT SPECIFICATIONS

**ZNSHINE SOLAR (ZXM6-NHLLD144-450/M) 450W MODULE:**  
PEAK POWER (+5W/-0W) Pmax 450 W  
OPERATING VOLTAGE Vmp 42.1 V  
OPERATING CURRENT Imp 10.70 A  
OPEN CIRCUIT VOLTAGE Voc 50.5 V  
SHORT CIRCUIT CURRENT Isc 11.35 A

**SOLAREDGE SE50KUS:**

MAXIMUM OUTPUT POWER 50 KW  
AC OUTPUT VOLTAGE (3φ) 208 VAC  
AC MAXIMUM OUTPUT CURRENT 139.5 A  
DC MAXIMUM INPUT VOLTAGE 600 VDC

**SOLAREDGE P1101 OPTIMIZER:**

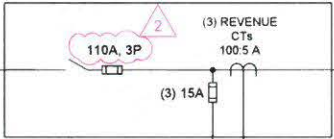
RATED DC INPUT POWER 1100 W  
MAXIMUM INPUT SHORT CIRCUIT CURRENT 14.1 ADC  
MAXIMUM INPUT VOLTAGE 125 VDC  
MAXIMUM OUTPUT CURRENT 18 ADC  
MAXIMUM OUTPUT VOLTAGE 80 VDC

**SOLAREDGE SE17.3KUS:**

MAXIMUM OUTPUT POWER 17.3 KW  
AC OUTPUT VOLTAGE (3φ) 208 VAC  
AC MAXIMUM OUTPUT CURRENT 48.25 A  
DC MAXIMUM INPUT VOLTAGE 600 VDC

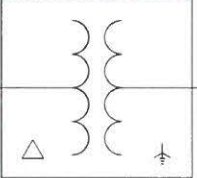
JCP&L  
METER #  
28159374

NEW FUSED DISCONNECT  
200 A, 480 VAC, 3PH/3W, NEMA 3R  
(SEE SIGNAGE NOTES B2, B3, & B4)

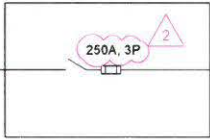


NEW PV REVENUE  
METER

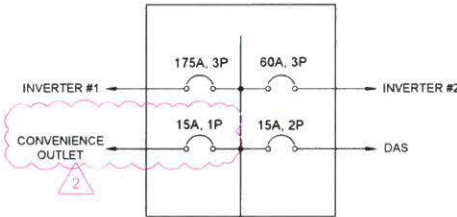
NEW TRANSFORMER  
75 KVA,  
480 VAC (DELTA) : 208/120 VAC (WYE-GND),  
DRY TYPE, NEMA 3R  
(NOTE: FINAL WINDING CONFIGURATION TO  
BE DETERMINED PENDING UTILITY REVIEW)



NEW FUSED DISCONNECT  
400A, 208/120 VAC, 3PH/4W, NEMA 3R  
(SEE SIGNAGE NOTES B2 & B3)



NEW PV AC COMBINER PANEL  
400A, 208/120 VAC, 3PH/4W, NEMA 3R  
(SEE SIGNAGE NOTES B2)



REVISIONS			
NO.	DESCRIPTION	BY	DATE
2	SYSTEM SIZE REDUCTION	AR	10/24/22
1	RNM SYSTEM REVISION	AR	9/12/22

PROJECT TITLE:  
RUTGERS AGRIVOLTAICS PROGRAM  
SOLAR PHOTOVOLTAIC SYSTEM

SITE:  
SNYDER FARIAS  
140 LOCUST GROVE ROAD  
PITTSBORO, NEW JERSEY 08867

OWNER:  
RUTGERS UNIVERSITY  
57 US HIGHWAY 1  
NEW BRUNSWICK, NEW JERSEY 08901

ADVANCED SOLAR PRODUCTS  
270 SOUTH MAIN STREET  
FLEMINGTON, NJ 08822  
908-751-5818 (PHONE)  
908-751-5819 (FAX)  
tyle@advancedsolarproducts.com

NJ CERTIFICATE OF AUTHORIZATION LICENSE  
NO.: 24GA28102500

DRAWN: ADR DATE: 07/26/2022  
CHECKED: DATE:

SCALE: NONE DWG. NO.: E-3-1B

DRAWING TITLE:  
ONE LINE DIAGRAM - AC

ANTHONY TIMOTHY LOMMA, P.E.  
NJ PROFESSIONAL ENGINEER  
UC #24GE04553700

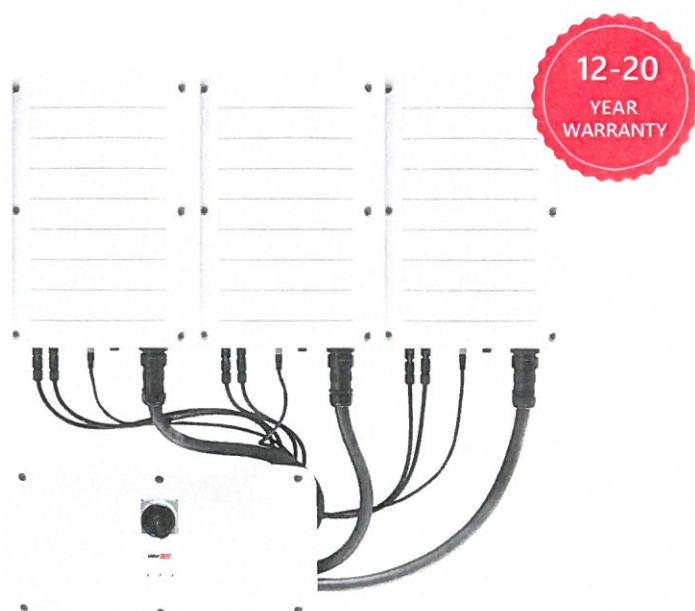
FOR INTERCONNECTION



## Three Phase Inverter with Synergy Technology

For the 208V Grid for North America

SE50KUS



### 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 2 or 3 Synergy units and one 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 optional 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

Applicable to inverter with Part Numbers	SExxK-USx2Ixxxx	
	SE50KUS	
<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 <sup>(1)</sup> (L-N)	105-120-132.5	Vac
AC Output Voltage Minimum-Nominal-Maximum <sup>(1)</sup> (L-L)	183-208-229	Vac
AC Frequency Min-Nom-Max <sup>(1)</sup>	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	+/-0.2 to 1	
<b>INPUT</b>		
Maximum DC Power (Module STC) Inverter / Synergy Unit	139.5	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 <sup>(2)</sup>	
CEC Weighted Efficiency	97	%
Nighttime Power Consumption	< 12	W
<b>ADDITIONAL FEATURES</b>		
Supported Communication Interfaces <sup>(3)</sup>	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, 2017 and 2020, 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	
<b>DC SAFETY SWITCH</b>		
DC Disconnect	Built-in	
<b>STANDARD COMPLIANCE</b>		
Safety	UL1699B, CSA C22.2#107.1, Canadian AFCI according to T.I.L. M-07	
Grid Connection Standards	IEEE 1547, Rule 21, Rule 14 (HI)	
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 <https://www.solaredge.com/products/communication> or the Resource Library webpage: <https://www.solaredge.com/downloads#>, to download the relevant product datasheet

# / Three Phase Inverter with Synergy Technology

## For the 208V Grid for North America

### SE50KUS

Applicable to inverter with Part Numbers	SExxK-USx2Lxxxx	
	SE50KUS	
<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 <sup>(4)</sup>	12 / 4 pairs; 6-12 AWG	
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 <sup>(5)</sup>	F / °C
Cooling	Fan (user replaceable)	
Noise	< 67	dBA
Protection Rating	NEMA 3R	
Mounting	Brackets provided	

(4) DC input is also available with single pair termination per synergy unit. For more information contact SolarEdge

(5) For power de-rating information refer to: <https://www.solaredge.com/sites/default/files/se-temperature-derating-note.pdf>

## Three Phase Inverter for the 120/208V Grid For North America

SE17.3KUS



### The best choice for SolarEdge enabled systems

- / Specifically designed to work with power optimizers
- / Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- / Fixed voltage inverter for superior efficiency (97.5%) and longer strings
- / Built-in type 2 DC and AC Surge Protection, to better withstand lightning events
- / Small, lightest in its class, and easy to install outdoors or indoors on provided bracket
- / Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- / Built-in module-level monitoring with Ethernet, wireless or cellular communication for full system visibility
- / Integrated Safety Switch
- / UL1741 SA certified, for CPUC Rule 21 grid compliance



# Three Phase Inverter for the 120/208V Grid<sup>(1)</sup>

## For North America

### SE17.3KUS

MODEL NUMBER	SE17.3KUS	UNITS
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXKX-USX2IXXXX	
<b>OUTPUT</b>		
Rated AC Power Output	17300	W
Maximum apparent AC output power	17300	VA
AC Output Line Connections	3W + PE, 4W + PE	
AC Output Voltage Minimum-Nominal-Maximum <sup>(2)</sup> (L-N)	105-120-132.5	V <sub>ac</sub>
AC Output Voltage Minimum-Nominal-Maximum <sup>(2)</sup> (L-L)	183-208-229	V <sub>ac</sub>
AC Frequency Min-Nom-Max <sup>(3)</sup>	59.3 - 60 - 60.5	Hz
Continuous Output Current (per Phase)	48.25	A <sub>ac</sub>
GFDI Threshold	1	A
Utility Monitoring, Islanding Protection, Country Configurable Set Points	Yes	
THD	≤ 3	%
Power Factor Range	+/- 0.85 to 1	
<b>INPUT</b>		
Maximum DC Power (Module STC)	26000	W
Transformer-less, Ungrounded	Yes	
Maximum Input Voltage DC+ to DC-	600	V <sub>dc</sub>
Operating Voltage Range	370 - 600	V <sub>dc</sub>
Maximum Input Current	48.25	A <sub>dc</sub>
Maximum Input Short Circuit Current	55	A <sub>dc</sub>
Reverse-Polarity Protection	Yes	
Ground-Fault Isolation Detection	167kΩ Sensitivity <sup>(4)</sup>	
CEC Weighted Efficiency	97.5	%
Night-time Power Consumption	< 4	W
<b>ADDITIONAL FEATURES</b>		
Supported Communication Interfaces	2 x RS485, Ethernet, Cellular (optional)	
Inverter Commissioning	With the SetApp mobile application using built-in Wi-Fi access point for local connection	
Rapid Shutdown	NEC2014, NEC2017 and NEC2020 compliant/certified	
RS485 Surge Protection Plug-in	Supplied with the inverter, Built-in	
AC, DC Surge Protection	Type II, field replaceable, Built-in	
DC Fuses (Single Pole)	25A, Built-in	
Smart Energy Management	Export Limitation	
<b>DC SAFETY SWITCH</b>		
DC Disconnect	Integrated	
<b>STANDARD COMPLIANCE</b>		
Safety	UL1741, UL1741 SA, UL1699B, CSA C22.2, Canadian AFCI according to T.I.L. M-07	
Grid Connection Standards	IEEE1547, Rule 21, Rule 14 (HI)	
Emissions	FCC part15 class A	
<b>INSTALLATION SPECIFICATIONS</b>		
AC output conduit size /AWG range	¾" or 1" / 6 - 10 AWG	
DC input conduit size / AWG range	¾" or 1" / 6 - 12 AWG	
Number of DC inputs pairs	4	
Dimensions with Safety Switch (H x W x D)	31.8 x 12.5 x 11.8 / 808 x 317 x 300	in / mm
Weight with Safety Switch	78.2 / 35.5	lb / kg
Cooling	Fans (user replaceable)	
Noise	< 62	dBA
Operating Temperature Range	-40 to +140 / -40 to +60 <sup>(4)</sup>	°F / °C
Protection Rating	NEMA 3R	
Mounting	Bracket provided	

(1) For 277/480V inverters refer to: <https://www.solaredge.com/sites/default/files/se-three-phase-us-inverter-277-480v-setapp-datasheet.pdf>

(2) For other regional settings please contact SolarEdge support

(3) Where permitted by local regulations

(4) For power de-rating information refer to: <https://www.solaredge.com/sites/default/files/se-temperature-de-rating-note-na.pdf>



Caution: Photovoltaic system performance predictions calculated by PVWatts® include many inherent assumptions and uncertainties and do not reflect variations between PV technologies nor site-specific characteristics except as represented by PVWatts® inputs. For example, PV modules with better performance are not differentiated within PVWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at <https://sam.nrel.gov>) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

Disclaimer: The PVWatts® Model ("Model") is provided by the National Renewable Energy Laboratory ("NREL"), which is operated by the Alliance for Sustainable Energy, LLC ("Alliance") for the U.S. Department Of Energy ("DOE") and may be used for any purpose whatsoever.

The names DOE/NREL/ALLIANCE shall not be used in any representation, advertising, publicity or other manner whatsoever to endorse or promote any entity that adopts or uses the Model. DOE/NREL/ALLIANCE shall not provide any support, consulting, training or assistance of any kind with regard to the use of the Model or any updates, revisions or new versions of the Model.

YOU AGREE TO INDEMNIFY DOE/NREL/ALLIANCE, AND ITS AFFILIATES, OFFICERS, AGENTS, AND EMPLOYEES AGAINST ANY CLAIM OR DEMAND, INCLUDING REASONABLE ATTORNEYS' FEES, RELATED TO YOUR USE, RELIANCE, OR ADOPTION OF THE MODEL FOR ANY PURPOSE WHATSOEVER. THE MODEL IS PROVIDED BY DOE/NREL/ALLIANCE "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A

## RESULTS

1,146 kWh/Year\*

System output may range from 1,069 to 1,167 kWh per year near this location.

Month	Solar Radiation ( kWh / m <sup>2</sup> / day )	AC Energy ( kWh )
January	3.04	76
February	3.82	85
March	4.08	99
April	4.34	99
May	4.71	110
June	5.18	115
July	5.16	117
August	4.97	112
September	4.73	106
October	3.67	87
November	3.20	75
December	2.69	66
Annual	4.13	1,147

### Location and Station Identification

Requested Location

140 LOCUST GROVE ROAD PITTSOWN, NEW JERSEY 08867

Weather Data Source

Lat, Lng: 40.57, -74.94 1.1 mi

PARTICULAR PURPOSE ARE EXPRESSLY  
DISCLAIMED. IN NO EVENT SHALL  
DOE/NREL/ALLIANCE BE LIABLE FOR ANY  
SPECIAL, INDIRECT OR CONSEQUENTIAL  
DAMAGES OR ANY DAMAGES WHATSOEVER,  
INCLUDING BUT NOT LIMITED TO CLAIMS  
ASSOCIATED WITH THE LOSS OF DATA OR  
PROFITS, WHICH MAY RESULT FROM ANY  
ACTION IN CONTRACT, NEGLIGENCE OR  
OTHER TORTIOUS CLAIM THAT ARISES OUT  
OF OR IN CONNECTION WITH THE USE OR  
PERFORMANCE OF THE MODEL.

The energy output range is based on  
analysis of 30 years of historical weather  
data, and is intended to provide an indication  
of the possible interannual variability in  
generation for a Fixed (open rack) PV system  
at this location.

Latitude	40.57° N
Longitude	74.94° W

PV System Specifications

DC System Size	1 kW
Module Type	Premium
Array Type	1-Axis Backtracking
Array Tilt	60°
Array Azimuth	90°
System Losses	14.96%
Inverter Efficiency	96%
DC to AC Size Ratio	1.2
Ground Coverage Ratio	0.4

Performance Metrics

Capacity Factor	13.1%
-----------------	-------