

OCALA ELECTRIC UTILITY
OCALA, FLORIDA

FIRST REVISED SHEET NO. 19.0
CANCELS ORIGINAL SHEET NO. 19.0

APPLICATION FOR INTERCONNECTION OF CUSTOMER-OWNED RENEWABLE GENERATION SYSTEMS

TIER 1 - Ten (10) kW or Less

TIER 2 - Greater than 10 kW and Less Than or Equal to 100 kW

TIER 3 - Greater than 100 kW and Less Than or Equal to Two (2) MW

Note: These customer-owned renewable generation system size limits may be subject to a cumulative enrollment limit on net-metering customers located in the area served by the City of Ocala Electric Utility. Please refer to the Ocala Electric Utility Net-Metering Rate Schedule.

Ocala Electric Utility customers who install customer-owned renewable generation systems (RGS) and desire to interconnect those facilities with the Ocala Electric Utility system are required to complete this application. When the completed application and fees are returned to Ocala Electric Utility, the process of completing the appropriate Tier 1, Tier 2 or Tier 3 Interconnection Agreement can begin. This application and copies of the Interconnection Agreements may be obtained at Ocala Electric Utility, located at 201 SE 3rd Street, Ocala, Florida 34471, or may be requested by email from OEU@ocalafl.org.

1. Customer Information

Name: Nicolas Trujillo

Mailing Address: 7450 SW 19TH AVENUE RD

City: OCALA State: FL Zip Code: 34476

Phone Number: (815) 222-3350 Alternate Phone Number: _____

Ocala Electric Utility Customer Account Number: 533264-255384

2. RGS Facility Information

Facility Location: ROOF MOUNTED

Ocala Electric Utility Customer Account Number: 533264-255384

RGS Manufacturer: ENPHASE

Manufacturer's Address: _____

Reference or Model Number: IQ8M

Serial Number: ENPHASE IQ8M-72-2-US

Issued by: Michael Poucher, P.E.
Electric Utility Director

Effective: October 1, 2019

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3. Facility Rating Information

Gross Power Rating: 8.98 ("Gross power rating" means the total manufacturer's AC nameplate generating capacity of an on-site customer-owned renewable generation system that will be interconnected to and operate in parallel with Ocala Electric Utility's distribution facilities. For inverter-based systems, the AC nameplate generating capacity shall be calculated by multiplying the total installed DC nameplate generating capacity by 0.85 in order to account for losses during the conversion from DC to AC.)

Fuel or Energy Source: SOLAR

Anticipated In- Service Date: 07 / 31 / 2024

4. Application Fee

The application fee is based on the Gross Power Rating and must be submitted with this application. The non-refundable application fee is \$375 for Tier 2 and \$750 for Tier 3 installations. There is no application fee for Tier 1 installations.

5. Interconnection Study Fee

For Tier 3 installations, a deposit in the amount of the estimated costs of the study (to be determined at time of application) must be paid along with this application in addition to the application fee referenced in Article 4 above. This deposit will be applied toward the cost of an interconnection study. The customer will be responsible for the actual costs of the study. Should the actual cost of the study be less than the deposit, the difference will be refunded to the customer. Customer agrees to comply with all interconnection requirements identified in the interconnection study report.

6. Required Documentation

Prior to completion of the Interconnection Agreement, the following information must be provided to the Ocala Electric Utility by the customer.

A. Documentation demonstrating that the installation complies with (or most current version at time of inspection approval):

1. IEEE 1547 (2018) Standard for Interconnecting Distributed Resources with Electric Power Systems.
2. IEEE 1547.1 (2005) Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems.
3. UL 1741 (2010) Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources.

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B. Documentation that the customer-owned renewable generation has been inspected and approved by local code officials prior to its operation in parallel with the Ocala Electric Utility system to ensure compliance with applicable local codes. OEU will also require proof of commission testing by a qualified 3rd party testing company (not affiliated in any way with the manufacturer, vendor or installation contractor), for compliance with all required and applicable codes, standards, and interconnection study requirements, prior to setting of OEU metering equipment.

C. Proof of insurance in the amount of:

Tier 1 - \$100,000.00
Tier 2 - \$1,000,000.00
Tier 3 - \$2,000,000.00

Customer

By: Nicolas Trujillo Date: 07 / 31 / 2024
(Print Name)


(Signature)

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Electric Utility Director

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Tri-Party Net-Metering Power Purchase Agreement

This Tri-Party Net-Metering Power Purchase Agreement (this "Agreement") is entered into this 31st day of JULY, 2024, by and between the Florida Municipal Power Agency, a governmental joint action agency created and existing under the laws of the State of Florida (hereinafter "FMPA"), the City of Ocala doing business as Ocala Electric Utility, a body politic (hereinafter "OEU"), and Nicolas Trujillo, a retail electric customer of OEU (hereinafter "Customer").

Section 1. Recitals

1.01. OEU and Customer have executed OEU's Standard Interconnection Agreement for a Customer-Owned Renewable Generation System (RGS) pursuant to which OEU has agreed to permit interconnection of Customer's renewable generation to OEU's electric system at Customer's presently-metered location, and Customer has agreed to deliver excess electric energy generated by Customer's Renewable Generation System to OEU's electric distribution system;

1.02. The City of Ocala and FMPA have entered into the All-Requirements Power Supply Contract, dated as of May 1, 1986, (hereinafter the "ARP Contract") pursuant to which the City of Ocala has agreed to purchase and receive, and FMPA has agreed to sell and supply OEU with all energy and capacity necessary to operate the OEU electric system, which limits OEU's ability to directly purchase excess energy from customer-owned renewable generation.

1.03. In order to promote the development of small customer-owned renewable generation by permitting OEU to allow its customers to interconnect with OEU's electric system and to allow OEU's electric customers to offset their electric consumption with customer-owned renewable generation, FMPA, in accordance with the terms and conditions of this agreement, has agreed to purchase excess customer-owned generation from OEU's electric customers interconnected to OEU's electric system.

NOW THEREFORE, for and in consideration of the mutual covenants and agreements set forth herein, the Parties covenant and agree as follows:

Section 2. Interconnection

2.01. Customer shall not begin parallel operations with the OEU electric distribution system until Customer has executed OEU's electric Standard Interconnection Agreement for Small Customer-Owned Renewable Generation and is in compliance with all terms and conditions

OEU requires that the customer install and operate the RGS in accordance with all applicable safety codes and standards. OEU shall establish and enforce terms and conditions of operation and disconnection of all interconnected customer-owned renewable generation as it relates to the effect of the RGS on OEU's electric distribution system.

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Section 3. Metering

3.01 In accordance with the OEU's Standard Interconnection Agreement for Customer-Owned Renewable Generation, OEU shall install metering equipment at the point of delivery capable of recording two separate kWh meter readings: (1) the flow of electricity from OEU to the Customer (Delivered), and (2) the flow of excess electricity from the Customer to OEU. OEU shall take meter readings on the same cycle as the otherwise applicable rate schedule.

Section 4. Purchase of Excess Customer-Owned Renewable Generation

4.01. Customer-owned renewable generation shall be first used for Customer's own load and shall offset Customer's demand for OEU's electricity. All electric power and energy delivered by OEU to Customer shall be received and paid for by Customer to OEU (Received) pursuant to the terms, conditions and rates of the OEU otherwise applicable rate schedule.

4.02. Excess customer-owned renewable generation shall be delivered to the OEU Electric distribution system. For purposes of this Agreement, the term "excess customer-owned renewable generation" means any kWh of electrical energy produced by the customer-owned renewable generation system that is not consumed by Customer and is delivered to the OEU electric distribution system. FMPA agrees to purchase and receive, and Customer agrees to sell and deliver, all excess customer-owned renewable generation at the energy rate established by FMPA, which shall be calculated in accordance with Schedule A. Excess customer-owned renewable generation shall be purchased in the form of a credit on Customer's monthly energy consumption bill from OEU.

4.03. In the event that a given monthly credit for excess customer-owned renewable generation exceeds the total billed amount for Customer's consumption in any corresponding month, then the excess credit shall be applied to the subsequent month's bill. Excess energy credits produced pursuant to the preceding sentence shall accumulate and be used to offset Customer's energy consumption bill for a period of not more than twelve (12) months. At the end of each calendar year, any unused excess energy credits shall be paid by OEU to the Customer in accordance with the OEU Electric Net-Metering Service Rate Schedule.

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4.04. FMPA and OEU shall not be required to purchase or receive excess customer-owned renewable generation, and may require Customer to interrupt or reduce production of customer-owned renewable generation, (a) when necessary in order to construct, install, maintain, repair, replace, remove, investigate, or inspect any OEU equipment or part of OEU's system; or (b) if either FMPA or OEU determine, in their sole judgment, that curtailment, interruption, or reduction is necessary because of emergencies, forced outages, force majeure, or compliance with any applicable electric code or standard.

4.05. Customer acknowledges that its provision of electricity to OEU hereunder is on a first-offered, first-accepted basis and subject to diminution and/or rejection in the event the total amount of electricity delivered to OEU pursuant to the Net-Metering Service Rate Schedule (as filed with the Florida Public Service Commission), from all participating OEU customers, exceeds two and one-half percent (2.5%) of the aggregate customer peak demand on the OEU electric system.

Section 5. Renewable Energy Credits

5.01. Customer shall offer FMPA a first right of refusal before selling or granting to any third party the right to the Green Attributes associated with its customer-owned renewable generation that is interconnected to OEU electric distribution system. The term "Green Attributes" shall include any and all credits, certificates, benefits, environmental attributes, emissions reductions, offsets, and allowances, however entitled, attributable to the generation of electricity from the customer-owned-renewable generation and its displacement of conventional energy generation.

5.02. Any additional meter(s) installed to measure total renewable electricity generated by the Customer for the purposes of measuring Green Attributes, including and renewable energy certificates (or similarly titled credits for renewable energy generated), shall be installed at the expense of the Customer, unless determined otherwise during negotiations for the sale of the Customer's credits to FMPA.

Section 6. Term and Termination

6.01. This Agreement shall become effective upon execution by all Parties, and shall remain in effect thereafter on a month-to-month basis until terminated by any Party upon thirty (30) days written notice to all other Parties.

6.02. This Agreement shall terminate immediately and without notice upon: (a) termination of the electric distribution service by OEU or (b) failure by Customer to comply with any of the terms and conditions of this Agreement or OEU's Standard Interconnection Agreement for Customer-Owned Renewable Generation.

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Issued by: Michael Poucher, P.E.
Electric Utility Director

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Section 7. Miscellaneous Provisions

7.01. Assignment. It is understood and agreed that no party may transfer, sell, mortgage, pledge, hypothecate, convey, designate, or otherwise assign this Agreement, or any interest herein or any rights or obligations hereunder, in whole or in part, either voluntarily or by operation of law, (including, without limitation, by merger, consolidation, or otherwise), without the express written consent of the other parties (and any such attempt shall be void), which consent shall not be unreasonably withheld. Subject to the foregoing, this Agreement shall inure to the benefit of and be binding upon the parties and their respective successors and permitted assigns.

7.02 Amendment. It is understood and agreed that FMPA and OEU reserve the right, on no less than an annual basis, to change any of the terms and conditions, including pricing, in this Agreement on sixty (60) days advance written notice. FMPA and OEU may make such changes on an immediate basis in the event any applicable law, rule, regulation or court order requires them. In such event, FMPA and OEU will give Customer as much notice as reasonably possible under the circumstances.

7.03. Indemnification. To the fullest extent permitted by laws and regulations, and in return for adequate, separate consideration, Customer shall defend, indemnify, and hold harmless FMPA and OEU, their officers, directors, agents, guests, invitees, and employees from and against all claims, damages, losses to persons or property, whether direct, indirect, or consequential (including but not limited to fees and charges of attorneys, and other professionals and court and arbitration costs) arising out of, resulting from, occasioned by, or otherwise caused by the operation or misoperation of the customer-owned renewable generation, or the acts or omissions of any other person or organization directly or indirectly employed by the Customer to install, furnish, repair, replace or maintain the customer-owned renewable generation system, or anyone for whose acts any of them may be liable.

7.04. Governing Law. The validity and interpretation of this Agreement and the rights and obligations of the parties shall be governed and construed in accordance with the laws of the State of Florida without regard for any conflicts of law provisions that might cause the law of other jurisdictions to apply. All controversies, claims, or disputes arising out of or related to this Agreement or any agreement, instrument, or document contemplated hereby, shall be brought exclusively in the County or Circuit Court for Marion County, Florida, or the United States District Court sitting in Marion County, Florida, as appropriate.

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Electric Utility Director

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7.05. Enforcement of Agreement. In the event that either party is required to enforce this Agreement by court proceedings or otherwise, the prevailing party shall be entitled to recover all fees and costs incurred, including reasonable attorney's fees and costs for trial, alternative dispute resolution, and/or appellate proceedings.

7.06. Severability. To the extent any provision of this Agreement is prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement.

7.07. Third Party Beneficiaries and Sovereign Immunity. This Agreement is solely for the benefit of FMPA, OEU, and Customer and no right nor shall any cause of action accrue upon or by reason, to or for the benefit of any third party not a formal party to this Agreement. Nothing in this Agreement, expressed or implied, is intended or shall be construed to confer upon any person or corporation other than FMPA, OEU, or Customer, any right, remedy, or claim under or by reason of this Agreement or any of the provisions or conditions of this Agreement; and, all provisions, representations, covenants, and conditions contained in this Agreement shall inure to the sole benefit of and be binding upon FMPA, OEU, and Customer and their respective representatives, successors, and assigns. Further, no term or condition contained in this Agreement shall be construed in any way as a waiver by either FMPA or OEU of the sovereign immunity applicable to either or both of them as established by Florida Statutes, 768.28.

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Electric Utility Director

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

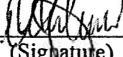
City of Ocala Electric Utility

By:  Signed by:
Janice Mitchell
55198843858A4E1
Title: CFO
Date: 9/12/2024

Florida Municipal Power Agency

By:  DocuSigned by:
John
087F50EBB34B474...
Title: VP of IT/OT and System Ops
Date: 9/12/2024

Customer

By:  Nicolas Trujillo
(First Name)
 (Signature)
Date: 07 / 31 / 2024

Customer's City of Ocala Electric Utility Account Number: 533264-255384

Approved as to form and legality:

 DocuSigned by:
Alyssa Winston
55198843858A4E1
William E. Sexton, Esq.
City Attorney

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Issued by: Michael Poucher, P.E.
Electric Utility Director

Effective: October 1, 2019

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**Tri-Party Net-Metering Power Purchase Agreement
Schedule A**

I. All-Requirements Project Calculation of Excess Customer-Owned Renewable Generation Credit

- a) FMPA shall pay OEU for the excess kWh energy delivered by customer-owned renewable generation to OEU's electric system. Every month, OEU shall determine the total kWh of customer-owned renewable generation that is delivered to OEU's electric system, and shall send the information to FMPA as soon as it becomes available, but no later than the second working day of every month. FMPA will then provide a monthly payment to OEU in the form of a credit on the ARP power bill for the excess energy delivered to the distribution grid. The ARP Renewable Generation Credit will be calculated as follows:

ARP Renewable Generation Credit = Quarterly Energy Rate * Monthly kWh of excess customer-owned renewable generation

Quarterly Energy Rate = 3 month average of ARP energy rate. FMPA will update the Quarterly Energy Rate every April 1, July 1, October 1 and January 1.

- b) As part of the monthly bill adjustment, FMPA will also increase OEU's kWh billing amount by the same kWh amount as the customer-owned renewable generation purchased by FMPA. This adjustment is necessary because excess customer generation that flows onto OEU's electric system has been purchased by FMPA, but will remain on OEU's electric system and be used by OEU to meet its other customers' electric needs. As a result, OEU's monthly ARP bill will be adjusted accordingly to reflect FMPA's subsequent sale of this energy to OEU.

II. Payment for Unused Excess Energy Credits

- a) Monthly excess energy credits shall accumulate and be used to offset the Customer's following month energy consumption bill for a period of not more than twelve (12) months.
- b) At the end of each calendar year, OEU shall pay the Customer for any unused excess energy credits in accordance with the OEU Electric Net-Metering Service Rate Schedule.

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Electric Utility Director

Effective: October 1, 2019

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**Tier 1 – Standard Interconnection Agreement
Customer-Owned Renewable Generation System**

This **Agreement** is made and entered into this 31st day of JULY, 2024, by and between Nicolas Trujillo, (hereinafter called "Customer"), located at 7450 SW 19TH AVENUE RD in OCALA, Florida, and the City of Ocala doing business as Ocala Electric Utility (hereinafter called OEU), a body politic. Customer and OEU shall collectively be called the "Parties". The physical location/premise where the interconnection is taking place: 7450 SW 19TH AVENUE RD, OCALA, FL 34476.

WITNESSETH

Whereas, a Tier 1 Renewable Generation System (RGS) is an electric generating system that uses one or more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power as defined in Section 377.803, Florida Statutes, rated at no more than ten (10) kilowatts (10 kW) alternating current (AC) power output and is primarily intended to offset part or all of the Customer's current electric requirements; and

Whereas, OEU operates an electric system serving the City of Ocala; and

Whereas, Customer has made a written Application to OEU, a copy being attached hereto, to interconnect its RGS with OEU's electrical supply grid at the location identified above; and

Whereas, the City of Ocala and the Florida Municipal Power Agency (hereinafter called "FMPA") have entered into the All-Requirements Power Supply Contract pursuant to which the City of Ocala has agreed to purchase and receive, and FMPA has agreed to sell and supply OEU with all energy and capacity necessary to operate the OEU electric system, which limits OEU's ability to directly purchase excess energy from customer-owned renewable generation; and

Whereas, in order to promote the development of small customer-owned renewable generation by permitting OEU to allow its customers to interconnect with OEU's electric system and to allow OEU customers to offset their electric consumption with customer-owned renewable generation, FMPA, in accordance with the terms and conditions of this agreement, has agreed to purchase excess customer-owned generation from OEU customers interconnected to OEU's electric system; and

Whereas, the OEU desires to provide interconnection of a RGS under conditions which will insure the safety of OEU customers and employees, reliability and integrity of its distribution system;

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements herein set forth, the parties hereto covenant and agree as follows:

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Electric Utility Director

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1. The Customer shall be required to enter into a Tri-Party Net-Metering Purchase Power Agreement with FMPA and the City of Ocala Electric Utility (OEU).
2. "Gross power rating" (GPR) means the total manufacturer's AC nameplate generating capacity of an on-site customer-owned renewable generation system that will be interconnected to and operate in parallel with OEU's distribution facilities. For inverter-based systems, the GPR shall be calculated by multiplying the total installed DC nameplate generating capacity by 0.85 in order to account for losses during the conversion from DC to AC.
3. This agreement is strictly limited to cover a Tier 1 RGS as defined above. It is the Customer's responsibility to notify OEU of any change to the GPR of the RGS by submitting a new application for interconnection specifying the modifications at least 30 days prior to making the modifications. Increase in GPR above the ten kilowatt (10 kW) limit would necessitate entering into a new agreement at either Tier 2 or Tier 3 which may impose additional requirements on the Customer. In no case does the Tier 1, Tier 2 or Tier 3 agreement cover increases in GPR above two megawatts (2MW).
4. The RGS GPR must not exceed 90 percent (90%) of the Customer's OEU calculated distribution service rating at the Customer's location (including shared electric facilities). If the GPR does exceed the 90 percent (90%) limit, the Customer shall be responsible to pay the cost of upgrades to the distribution facilities required to accommodate the GPR capacity and ensure the 90 percent (90%) threshold is not breached. OEU will not allow a RGS GPR greater than required to offset the customer's annual kWh energy consumption (based on customer's historical consumption data or by means of estimated usage of similar type of service as determined by OEU).
5. The Customer shall not be required to pay any special fees due solely to the installation of the RGS.
6. The Customer shall fully comply with OEU's Design Standards following NEC standards as those documents may be amended or revised by OUS from time to time.
7. The Customer certifies that its installation, its operation and its maintenance shall be in compliance with the following standards (or most current version at time of inspection approval):
 - a. IEEE-1547 (2018) Standard for Interconnecting Distributed Resources with Electric Power System;
 - b. IEEE-1547.1 (2005) Standard Conformance Test Procedures for Equipment Interconnection Distributed Resources with Electric Power Systems;
 - c. UL-1741 (2010) Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed *Energy Resources*.
 - d. The National Electric Code, state and/or local building codes, mechanical codes and/or electrical codes;
 - e. The manufacturer's installation, operation and maintenance instructions.

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Electric Utility Director

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8. The Customer is not precluded from contracting for the lease, operation or maintenance of the RGS with a third party. Such lease may not provide terms or conditions that provide for any payments under the agreement to any way indicate or reflect the purchase of energy produced by the RGS. Customer shall not enter into any lease agreement that results in the retail purchase of electricity; or the retail sale of electricity from the customer-owned renewable generation. Notwithstanding this restriction, in the event that Customer is determined to have engaged in the retail purchase of electricity from a party other than OEU, then Customer shall be in breach of this Agreement and may be subject to the jurisdiction of the Florida Public Service Commission and to fines/penalties.
9. The Customer shall provide a copy of the manufacturer's installation, operation and maintenance instructions to OEU. If the RGS is leased to the Customer by a third party, or if the operation or maintenance of the RGS is to be performed by a third party, the lease and/or maintenance agreements and any pertinent documents related to these agreements shall be provided to OEU.
10. Prior to commencing parallel operation with OEU's electric system, Customer shall have the RGS inspected and approved by the appropriate code authorities having jurisdiction. Customer shall provide a copy of this inspection and approval to OEU.
11. The Customer agrees to permit OEU, if it should so choose, to inspect the RGS and its component equipment and the documents necessary to ensure compliance with this Agreement both before and after the RGS goes into service and to witness the initial testing of the RGS equipment and protective apparatus. OEU will provide Customer with as much notice as reasonably possible, either in writing, email, facsimile or by phone as to when OEU may conduct inspections and or document review. Upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, Customer agrees to provide OEU access to the Customer's premises for any purpose in connection with the performance of the obligations required by this Agreement or, if necessary, to meet OEU's legal obligation to provide service to its customers. At least ten (10) business days prior to initially placing the customer-owned renewable generation system in service, Customer shall provide written notification to OEU advising of the date and time at which Customer intends to place the system in service, and OEU shall have the right to have personnel present on the in-service date in order to ensure compliance with the requirements of this Agreement.

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Electric Utility Director

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12. The Customer's RGS must have an appropriately sized grid-tie inverter system that includes applicable protective systems. Customer certifies that the RGS equipment includes an OEU interactive inverter or interconnection system equipment that ceases to interconnect with the OEU system upon a loss of OEU's electric power. The inverter shall be considered certified for interconnected operation if it has been submitted by a manufacturer to a nationally recognized testing laboratory (NRTL) to comply with UL 1741. The NRTL shall be approved by the Occupational Safety & Health Administration (OSHA).
13. If Customer adds another RGS that (i) utilizes the same OEU interactive inverter for both systems, or (ii) utilizes a separate OEU interactive inverter for each system, Customer shall provide OEU with sixty (60) days advance written notice of the addition.
14. The Customer shall not energize the OEU system when OEU's system is deenergized. The Customer shall cease to energize the OEU system during a faulted condition on the OEU system and/or upon any notice from OEU that the deenergizing of Customer's RGS equipment is necessary. The Customer shall cease to energize the OEU system prior to automatic or non-automatic reclosing of OEU's protective devices. There shall be no intentional islanding, as described in IEEE 1547, between the Customer's and OEU's systems.
15. The Customer is responsible for the protection of its generation equipment, inverters, protection devices, and other system components from damage from the normal and abnormal operations that occur on OEU system in delivering and restoring system power. Customer agrees that any damage to any of its property, including, without limitation, all components and related accessories of its RGS system, due to the normal or abnormal operation of OEU system, is at Customer's sole risk and expense. Customer is also responsible for ensuring that the customer-owned renewable generation equipment is inspected, maintained, and tested regularly in accordance with the manufacturer's instructions to ensure that it is operating correctly and safely.
16. The Customer must install, at their expense, a manual disconnect switch of the visible load break type to provide a separation point between the AC power output of the customer-owned renewable generation system and any Customer wiring connected to OEU's system, such that back feed from the customer-owned renewable generation system to OEU's system cannot occur when the switch is in the open position. The manual disconnect switch shall be mounted separate from the meter socket on an exterior surface adjacent to the meter. The switch shall be readily accessible to OEU and capable of being locked in the open position with an OEU padlock. When locked and tagged in the open position by OEU, this switch will be under the control of OEU.

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CANCELS ORIGINAL SHEET NO. 21.4

17. Subject to an approved inspection, including installation of acceptable disconnect switch, this Agreement shall be executed by OEU within thirty (30) calendar days of receipt of a completed application. Customer must execute this Agreement and return it to OEU at least thirty (30) calendar days prior to beginning parallel operations with OEU's electric system, subject to the requirements of Section 18, below, and within one (1) year after OEU executes this Agreement.
18. Once OEU has received Customer's written documentation that the requirements of this Agreement have been met, all agreements and documentation have been received and the correct operation of the manual switch has been demonstrated to an OEU representative, OEU will, within fifteen (15) business days, send written notice that parallel operation of the RGS may commence.
19. OEU requires the Customer to maintain general liability insurance for personal injury and property damage in the amount of not less than one hundred thousand dollars (\$100,000.00).
20. OEU will furnish, install, own and maintain metering equipment capable of measuring the flow of kilowatt-hours (kWh) of energy. The Customer's service associated with the RGS will be metered to measure the energy delivered by OEU to Customer, and measure the energy delivered by Customer to OEU. Customer agrees to provide safe and reasonable access to the premises for installation, maintenance and reading of the metering and related equipment. The Customer shall not be responsible for the cost of the installation and maintenance of the metering equipment necessary to measure the energy delivered by the Customer to OEU.
21. The Customer shall be solely responsible for all legal and financial obligations arising from the design, construction, installation, operation, maintenance and ownership of the RGS.
22. The Customer must obtain all permits, inspections and approvals required by applicable jurisdictions with respect to the generating system and must use a licensed, bonded and insured contractor to design and install the generating system. The Customer agrees to provide OEU with a copy of the local building code official inspection and certification of installation. The certification shall reflect that the local code official has inspected and certified that the installation was permitted, has been approved, and has met all electrical and mechanical qualifications.

(Continued on Sheet No. 21.5)

Issued by: Michael Poucher, P.E.
Electric Utility Director

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 21.4)

FIRST REVISED SHEET NO. 21.5
CANCELS ORIGINAL SHEET NO. 21.5

23. In no event shall any statement, representation, or lack thereof, either express or implied, by OEU, relieve the Customer of exclusive responsibility for the Customer's system. Specifically, any OEU inspection of the RGS shall not be construed as confirming or endorsing the system design or its operating or maintenance procedures or as a warranty or guarantee as to the safety, reliability, or durability of the RGS. OEU's inspection, acceptance, or its failure to inspect shall not be deemed an endorsement of any RGS equipment or procedure. Further, as set forth in Sections 15 and 26 of this Agreement, Customer shall remain solely responsible for any and all losses, claims, damages and/or expenses related in any way to the operation or misoperation of its RGS equipment.

24. Notwithstanding any other provision of this Interconnection Agreement, OEU, at its sole and absolute discretion, may isolate the Customer's system from the distribution grid by whatever means necessary, without prior notice to the Customer. To the extent practical, however, prior notice shall be given. The system will be reconnected as soon as practical once the conditions causing the disconnection cease to exist. OEU shall have no obligation to compensate the Customer for any loss of energy during any and all periods when Customer's RGS is operating at reduced capacity or is disconnected from OEU's electrical distribution system pursuant to this Interconnection Agreement. Typical conditions which may require the disconnection of the Customer's system include, but are not limited to, the following:

- a. OEU system emergencies, forced outages, uncontrollable forces or compliance with prudent electric OEU practice.
- b. When necessary to investigate, inspect, construct, install, maintain, repair, replace or remove any OEU equipment, any part of OEU's electrical distribution system or Customer's generating system.
- c. Hazardous conditions existing on OEU's system due to the operation of the Customer's generation or protective equipment as determined by OEU.
- d. Adverse electrical affects (such as power quality problems) on the electrical equipment of OEU's other electric consumers caused by the Customer's generation as determined by OEU.
- e. When Customer is in breach of any of its obligations under this Interconnection Agreement or any other applicable policies and procedures of OEU.
- f. When the Customer fails to make any payments due to OEU by the due date thereof.

25. Upon termination of services pursuant to this Agreement, OEU shall open and padlock the manual disconnect switch and remove any additional metering equipment related to this Agreement. At the Customer's expense, within thirty (30) working days following the termination, the Customer shall permanently isolate the RGS and any associated equipment from OEU's electric supply system, notify OEU that the isolation is complete, and coordinate with OEU for return of OEU's lock.

(Continued to Sheet No. 21.6)

Issued by: Michael Poucher, P.E.
Electric Utility Director

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 21.5)

FIRST REVISED SHEET NO. 21.6
CANCELS ORIGINAL SHEET NO. 21.6

26. To the fullest extent permitted by law, and in return for adequate, separate consideration, Customer shall indemnify, defend and hold harmless OEU, any and all of their members of its governing bodies, and its officers, agents, and employees 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, related to, arising from, or in any way connected with:

- a. Customer's design, construction, installation, inspection, maintenance, testing or operation of Customer's generating system or equipment used in connection with this Interconnection Agreement, irrespective of any fault on the part of OEU.
- b. The interconnection of Customer's generating system with, and delivery of energy from the generating system to, OEU's electrical distribution system, irrespective of any fault on the part of OEU.
- c. The performance or nonperformance of Customer's obligations under this Interconnection Agreement or the obligations of any and all of the members of Customer's governing bodies and its officers, agents, contractors (and any subcontractor or material supplier thereof) and employees.

Customer's obligations under this Section shall survive the termination of this Interconnection Agreement.

27. Customer shall not have the right to assign its benefits or obligations under this Agreement without OEU's prior written consent and such consent shall not be unreasonably withheld. If there is a change in ownership of the RGS, Customer shall provide written notice to OEU at least thirty (30) days prior to the change in ownership. The new owner will be required to assume, in writing, the Customer's rights and duties under this Agreement, or execute a new Standard Interconnection Agreement. The new owner shall not be permitted to net meter or begin parallel operations until the new owner assumes this Agreement or executes a new Agreement.

28. This Agreement supersedes all previous agreements and representations either written or verbal heretofore made between OEU and Customer with respect to matters herein contained. This Agreement, when duly executed, constitutes the only Agreement between parties hereto relative to the matters herein described. This Agreement shall continue in effect from year to year until either party gives sixty (60) days' notice of its intent to terminate this Agreement.

(Continued on Sheet No. 21.7)

Issued by: Michael Poucher, P.E.
Electric Utility Director

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 21.6)

FIRST REVISED SHEET NO. 21.7
CANCELS ORIGINAL SHEET NO. 21.7

29. This Agreement shall be governed by and construed and enforced in accordance with the laws, rules and regulations of the State of Florida and OEU's tariff as it may be modified, changed, or amended from time to time, including any amendments modification or changes to OEU's Net-Metering Service Rate Schedule, the schedule applicable to this Agreement. The Customer and OEU agree that any action, suit, or proceeding arising out of or relating to this Interconnection Agreement shall be initiated and prosecuted in the state court of competent jurisdiction located in Marion County, Florida, and OEU and the Customer irrevocably submit to the jurisdiction and venue of such court. To the fullest extent permitted by law, each Party hereby irrevocably waives any and all rights to a trial by jury and covenants and agrees that it will not request a trial by jury with respect to any legal proceeding arising out of or relating to this Interconnection Agreement.

None of the provisions of this Interconnection Agreement shall be considered waived by either Party except when such waiver is given in writing. No waiver by either Party of any one or more defaults in the performance of the provisions of this Interconnection Agreement shall operate or be construed as a waiver of any other existing or future default or defaults. If any one or more of the provisions of this Interconnection Agreement or the applicability of any provision to a specific situation is held invalid or unenforceable, the provision shall be modified to the minimum extent necessary to make it or its application valid and enforceable, and the validity and enforceability of all other provisions of this Interconnection Agreement and all other applications of such provisions shall not be affected by any such invalidity or unenforceability. This Interconnection Agreement does not govern the terms and conditions for the delivery of power and energy to non-generating retail customers of OEU's electrical distribution system.

30. This Agreement incorporates by reference the terms of the tariff filed with the Florida Public Service Commission by OEU, including OEU's Net-Metering Service Rate Schedule, and associated technical terms and abbreviations, general rules and regulations and standard electric service requirements (as may be applicable) are incorporated by reference, as amended from time to time. To the extent of any conflict between this Agreement and such tariff, the tariff shall control.

31. OEU and Customer recognize that the Florida Statutes and/or the Florida Public Service Commission Rules, including those directly addressing the subject of this Agreement, may be amended from time to time. In the event that such statutes and/or rules are amended that affect the terms and conditions of this Agreement, OEU and Customer agree to supersede and replace this Agreement with a new Interconnection Agreement, which complies with the amended statutes/rules.

(Continued on Sheet No. 21.8)

Issued by: Michael Poucher, P.E.
Electric Utility Director

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 21.7)

FIRST REVISED SHEET NO. 21.8
CANCELS ORIGINAL SHEET NO. 21.8

32. Customer acknowledges that its provision of electricity to OEU hereunder is on a first-offered, first-accepted basis and subject to diminution and/or rejection in the event the total amount of electricity delivered to OEU pursuant to the OEU's Net-Metering Service Rate Schedule, (as filed with the Florida Public Service Commission), from all participating OEU customers, exceeds two and one-half percent (2.5%) of the aggregate customer peak demand on the OEU system.

33. This Agreement is solely for the benefit of OEU and Customer and no right nor any cause of action shall accrue upon or by reason, to or for the benefit of any third party not a formal party to this Agreement. Nothing in this Agreement, expressed or implied, is intended or shall be construed to confer upon any person or corporation other than OEU or Customer, any right, remedy, or claim under or by reason of this Agreement or any of the provisions or conditions of this Agreement; and, all provisions, representations, covenants, and conditions contained in this Agreement shall inure to the sole benefit of and be binding upon OEU and Customer and their respective representatives, successors, and assigns. Further, no term or condition contained in this Agreement shall be construed in any way as a waiver by OEU of the sovereign immunity applicable to OEU as established by Florida Statutes, 768.28.

(Continued on Sheet No. 21.9)

Issued by: Michael Poucher, P.E.
Electric Utility Director

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 21.8)

FIRST REVISED SHEET NO. 21.9
CANCELS ORIGINAL SHEET NO. 21.9

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

City of Ocala Electric Utility:

Signed by:
By: Janice Mitchell

Title: CFO

Date: 9/12/2024

Customer:

By: Nicolas Trujillo

(Right Name)

_____ (Signature)

Date: 07 / 31 / 2024

City of Ocala Electric Utility Account Number:

533264-255384

Approved as to form and legality:

DocuSigned by:

Alysa Winston

William E. Sexton, Esq.
City Attorney

Issued by: Michael Poucher, P.E.
Electric Utility Director

Effective: October 1, 2019



EVIDENCE OF PROPERTY INSURANCE

DATE (MM/DD/YYYY)
05/31/2024

THIS EVIDENCE OF PROPERTY INSURANCE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFRS NO RIGHTS UPON THE ADDITIONAL INTEREST NAMED BELOW. THIS EVIDENCE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS EVIDENCE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE ADDITIONAL INTEREST.

AGENCY	PHONE (A/C. No. Ext): 813-417-0640		COMPANY	
GG INSURANCE AGENCY GROUP 8900 N Armenia Ave			LLOYDS OF LONDON UNDERWRITERS	
Tampa	FL 33604			
FAX (A/C. No): 8134170640	EMAIL ADDRESS: gginsuranceagencygroup@gmail.com			
CODE:	SUB CODE:			
AGENCY CUSTOMER ID #: 171708049				
INSURED			LOAN NUMBER	POLICY NUMBER
NICOLAS PACHECO TRUJILLO 7450 SW 19th Avenue Rd			218240456864	LL202433781327
Ocala	FL 34476		EFFECTIVE DATE	EXPIRATION DATE
			06/03/2024	06/03/2025
			<input type="checkbox"/> CONTINUED UNTIL <input type="checkbox"/> TERMINATED IF CHECKED	
			THIS REPLACES PRIOR EVIDENCE DATED:	

PROPERTY INFORMATION

LOCATION/DESCRIPTION

SAME AS MAILING ADDRESS

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS EVIDENCE OF PROPERTY INSURANCE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

COVERAGE INFORMATION	PERILS INSURED	BASIC	BROAD	SPECIAL	AMOUNT OF INSURANCE	DEDUCTIBLE
DWELLING (100% REPLACEMENT COST GUARANTEED)					\$222,600.00	AOP \$2,500.00
LIABILITY					\$100,000.00	5% WIND
MEDICAL PAYMENT					\$2,000.00	

REMARKS (Including Special Conditions)

Please collect at closing premium \$1,587.00 and make check PAYABLE to GG INSURANCE AGENCY

PLEASE SEND PAYMENT TO AGENCY
GG INSURANCE AGENCY
ATTN: LISANDRA MACIAS
8900 N ARMENIA AVE, SUITE 202
TAMPA, FL 33604

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

ADDITIONAL INTEREST

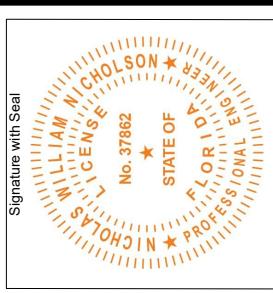
NAME AND ADDRESS	ADDITIONAL INSURED	LENDER'S LOSS PAYABLE	<input checked="" type="checkbox"/> LOSS PAYEE
	<input checked="" type="checkbox"/> MORTGAGEE		
My Mortgage, Inc ISAOA/ATIMA and/or the secretary of HUD 2191 Defense Highway, Suite 304 Crofton, MD 21114	LOAN # 218240456864 AUTHORIZED REPRESENTATIVE Lisandra Macias		

ACORD 27 (2016/03)

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OCALA, FL 34476
7450 SW 19TH AVE RD,
NICOLAS PACHECO TRUJILLO

REV 1 DATE 07-26-2024
DESCRIPTION SHOWN 24 MODULES OF APOTS
DNA-120-440W SOLAR MODULES
ADDED 1 ENPHASE IQ 440W SOLAR MODULE
ADDED TO EXISTING GROUNDING FROM
7450 SW 19TH AVE RD, Ocala, FL 34476
DATE 07-11-2024
REV 2 DATE 07-26-2024
DESCRIPTION SHOWN 24 MODULES OF APOTS
DNA-120-440W SOLAR MODULES
ADDED 1 ENPHASE IQ 440W SOLAR MODULE
ADDED TO EXISTING GROUNDING FROM
7450 SW 19TH AVE RD, Ocala, FL 34476
DATE 07-11-2024

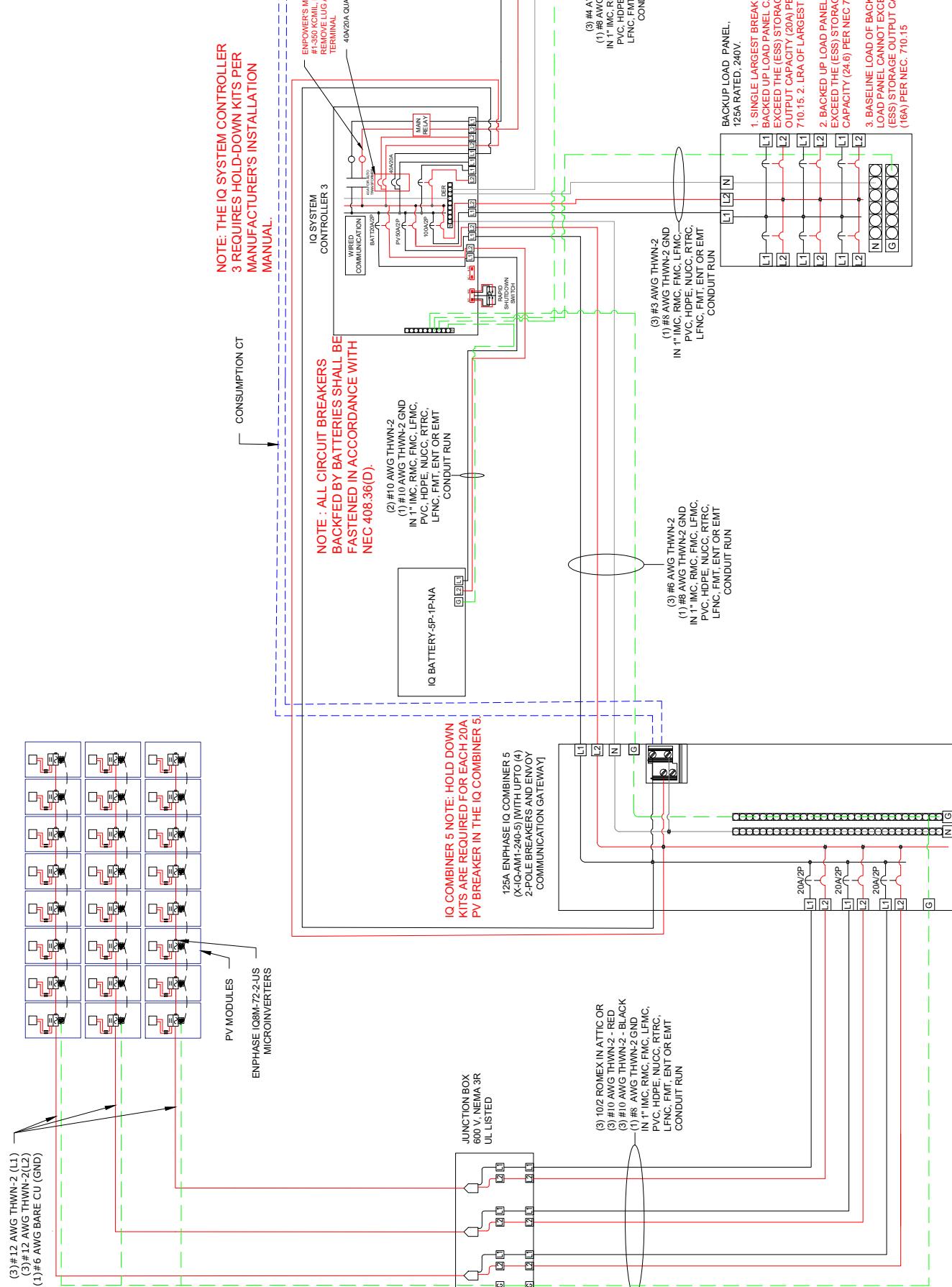
PERMIT DEVELOPER
DATE 06/12/2024
DESIGNER OAW
REVIEWER

SHEET NAME ELECTRICAL LINE DIAGRAM
SHEET NUMBER E-01

NOTE:
1. SUBJECT PV SYSTEMS HAS BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE NEC 2020, NFPA 70 AND THOSE SET FORTH BY THE FLORIDA SOLAR ENERGY CENTER CERTIFICATION, INCLUDING MAXIMUM NUMBER OF MODULE STRINGS, MAXIMUM NUMBER OF MODULES PER STRING, MAXIMUM OUTPUT, MODULE MANUFACTURER AND MODEL NUMBER, AS APPLICABLE.
2. PROVIDE TAP BOX IN COMPLIANCE WITH 312.8 IF PANEL GUTTER SPACE IS INADEQUATE.

nichola Digitally signed
MICROINVERTERS (8.98 KW-AC RATINGS)
(24) APTOS DNA-120-BF10-440W(SO&W)
(24) ENPHASE IQ8M-72-2-US MICROINVERTERS
nichols Date
(1) IQ BATTERY-5P-1P-NA
(3) BRANCHES OF 08 MODULES
On
10:46:50 -04:00'

Printed copies of this document are not
considered signed and sealed and the signature
must be verified on any electronic copies.





Signature with Seal

A circular orange seal for a Florida Professional Engineer. The outer ring contains the text "FLORIDA PROFESSIONAL ENGINEERING" at the top and "NICHOLS" at the bottom. The inner circle contains "WILLIAM A. NICHOLS" at the top and "LICENSEE" at the bottom. In the center is a five-pointed star with the number "No. 37862" to its left.

7450 SW 19TH AVE RD,
OCALLA, FL 34476

REVISIONS		PERMIT DEVELOPER	SHEET NAME		SHEET NUMBER
REV	DESCRIPTION	DATE	DESIGNER	REVIEWER	S-01
1	SHOWN 24 MODULES OF APLOS DNA-120-BF-10-440W/440W SOLAR MODULES 06-25-2024	06/12/2024	OAW		
2	SHOWN CONTINUOUS GROUNDING FROM ADD TO EXISTING GROUNDING 07-11-2024				
3	ADDED 1 ENPHASE IQ BATTERY SP 07-26-2024				

GENERAL INSTALLATION PLAN NOTES:

1) ROOF ATTACHMENTS TO TRUSSES SHALL BE INSTALLED AS SHOWN IN SHEET S-02 AND AS FOLLOWS FOR EACH WIND ZONE:

WIND ZONE 1: MAX SPAN 4'-0" O.C.
WIND ZONE 2: MAX SPAN 4'-0" O.C.
WIND ZONE 3: MAX SPAN 2'-0" O.C.

2) EXISTING RESIDENTIAL BUILDING ROOF WITH MEAN ROOF

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

WIND ZONE 1: MAX SPAN 4'-0" O.C.
WIND ZONE 2: MAX SPAN 4'-0" O.C.
WIND ZONE 3: MAX SPAN 2'-0" O.C.

2) EXISTING RESIDENTIAL BUILDING ROOF WITH MEAN ROOF HEIGHT 15FT AND 2"X4" WOOD ROOF TRUSSES SPACED 24" O.C.

CONTRACTOR TO FIELD VERIFY AND SHALL REPORT TO ENGINEER IF ANY DISCREPANCIES EXIST BETWEEN PLAN AND IN FIELD CONDITIONS.

I CERTIFY THAT THE INSTALLATION OF THE **mishe_h** IS IN COMPLIANCE WITH FBC, RESIDENTIAL CHAPTER 3 BUILDING 03:9:35 STRUCTURE WILL SAFELY ACCOMMODATE LATER **SON** WIND LOADS, AND EQUIPMENT DEAD LOADS.

NOTES:

1. LOCATION OF JUNCTION BOX(ES), AC DISCONNECT(S), AC COMBINER PANEL(S), AND OTHER ELECTRICAL EQUIPMENT(S) RELEVANT TO PV INSTALLATION SUBJECT TO CHANGE BASED ON SITE CONDITIONS.
2. SETBACKS AT RIDGES CAN BE REDUCED TO 18 INCHES IN COMPLIANCE WITH FBC R 324.6.2:
 TOTAL PLAN VIEW AREA = 2494.40 SQFT
 TOTAL PV AREA = $24(74.9 \text{ IN})(44.6 \text{ IN})/(144 \text{ IN}^2)$
 $= 556.76 \text{ SQFT}$
 $(556.76 \text{ SQFT}/2494.40 \text{ SQFT})100 = 22.32 \%$
 TOTAL PV AREA POPULATES 22.32 % OF TOTAL PLAN VIEW AREA AND IS WITHIN THE 33% REQUIREMENT.

LEGENDS

- UTILITY METER
- MAIN SERVICE PANEL
- IQ SYSTEM CONTROLLER
- BACKUP LOAD PANEL
- BATTERY
- JUNCTION BOX
- AC DISCONNECT
- COMBINER PANEL
- FIRE SETBACK
- ROOF ACCESS POINT
- MICROINVERTER
- VENT, ATTIC FAN (ROOF OBSTRUCTION)
- CONDUIT

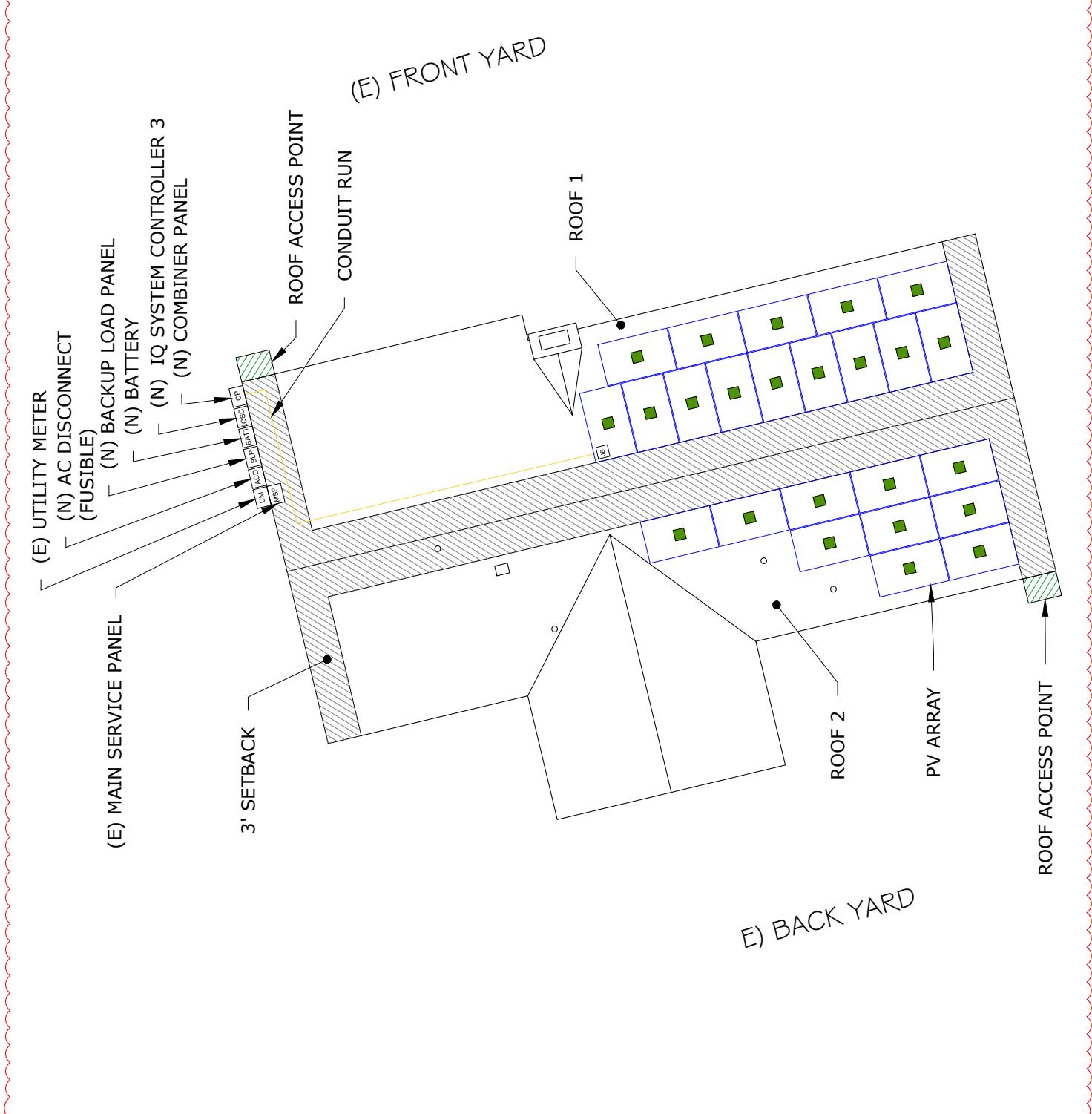
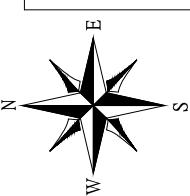
APOTOS DNA-120-BF10-440W
(440W) SOLAR
MODULES

MODULE TYPE, DIMENSIONS & WEIGHT

NUMBER OF MODULES = 24 MODULES
MODULE TYPE = APTOS DNA-120-BF10-440W(440W)SOLAR MODULES
MODULE WEIGHT = 53.35 LBS / 24.2 KG.
MODULE DIMENSIONS = 74.9" X 44.6" = 23.2 SF

NUMBER OF INVERTER = 24 MICROINVERTERS
INVERTER TYPE = ENPHASE IQ8M-72-2-US MICROINVERTERS

DC SYSTEM SIZE: 10.56 KW
AC SYSTEM SIZE: 8.98 KW



 <p>EXPERT SOLAR LLC ADD: 14320 MCCORMICK DRTAMPA, FL 33626 CONTACT: (800) 340-0881</p>	<p>Signature with Seal</p> 
<p>7450 SW 19TH AVE RD, OCALA, FL 34476</p> <p>NICOLAS PACHECO TRUJILLO</p>	

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considered signed and sealed and the signature
must be verified on any electronic copies.

IQ8M and IQ8A Microinverters

DATA SHEET



IQ8M and IQ8A Microinverters

Our newest IQ Microinverters are the industry's first microgrid-forming, software-defined microinverters with split-phase power conversion capability to convert DC power to AC power efficiently. The brain of the semiconductor-based microinverter is our proprietary application-specific integrated circuit (ASIC) which enables the microinverter to operate in grid-tied or off-grid modes. This chip is built in advanced 55nm technology with high speed digital logic and has super-fast response times to changing loads and grid events, alleviating constraints on battery sizing for home energy systems.



IQ8 Series Microinverters redefine reliability standards with more than one million cumulative hours of power-on testing, enabling an industry-leading limited warranty of up to 25 years.



Part of the Enphase Energy System, IQ8 Series Microinverters integrate with the Enphase IQ Battery, Enphase IQ Gateway, and the Enphase App monitoring and analysis software.



IQ8 Series Microinverters are UL Listed as PV Rapid Shut Down Equipment and conform with various regulations, when installed according to manufacturer's instructions.

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IQ8MA-DS-0003-01-EN-US-2022-03-17

ENPHASE.

Easy to install

- Lightweight and compact with plug-n-play connectors
- Power Line Communication (PLC) between components
- Faster installation with simple two-wire cabling

High productivity and reliability

- Produce power even when the grid is down*
- More than one million cumulative hours of testing
- Class II double-insulated enclosure
- Optimized for the latest high-powered PV modules

Microgrid-forming

- Complies with the latest advanced grid support**
- Remote automatic updates for the latest grid requirements
- Configurable to support a wide range of grid profiles
- Meets CA Rule 21 (UL 1741-SA) requirements

* Only when installed with IQ System Controller 2, meets UL 1741.
** IQ8M and IQ8A supports split phase, 240V installations only.

IQ8M and IQ8A Microinverters

INPUT DATA (DC)	W	108M-72-2-US
Commonly used module pairings ¹	W	260 - 480
Module compatibility	V	60-cell/120 half-cell, 66-cell/132 half-cell and 72-cell/144 half-cell
MPPT voltage range	V	33 - 45
Operating range	V	25 - 58
Min/max start voltage	V	30 / 58
Max input DC voltage	V	60
Max DC current ² (module) [sc]	A	15
Overtoltage class/DC port		II
DC port backfeed current	mA	0
PV array configuration		1x1 Ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit
OUTPUT DATA (AC)	V	108M-72-2-US
Peak output power	VA	330
Max continuous output power	VA	325
Nominal (L-L) voltage/range ³	V	240 / 211 - 264
Max continuous output current	A	1.35
Nominal frequency	Hz	60
Extended frequency range	Hz	50 - 60
AC short circuit fault current over 3 cycles	Arms	2
Max units per 20 A (L-L) branch circuit ⁴		11
Total harmonic distortion		<5%
Overtoltage class/AC port		III
AC port backfeed current	mA	30
Power factor setting		1.0
Grid-tied power factor (adjustable)		0.95 leading - 0.95 lagging
Peak efficiency	%	97.6
CEC weighted efficiency	%	97
Night-time power consumption	mW	60

REV	DESCRIPTION	DATE
1	SHOWN 24 MODULES OF APOTS DNA-20-BP-140W/400W SOLAR MODULES	06-25-2024
2	ADDED TO EXISTING GROUNDING FORM	07-11-2024
3	ADDED 1 ENPHASE 10 BATTERY 5P	07-26-2024

PERMIT DEVELOPER	DATE
	06/12/2024
DESIGNER	OAW
REVIEWER	

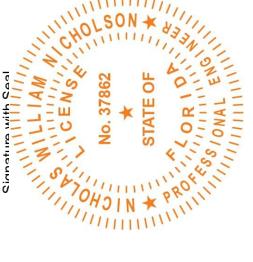
SHEET NAME	SHEET NUMBER
INVERTER DATASHEET	DS-02

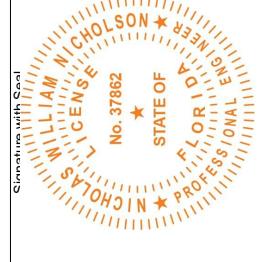
IQ8MA-DS-0003-01-EN-US-2022-03-17

IQ8M

IQ8A

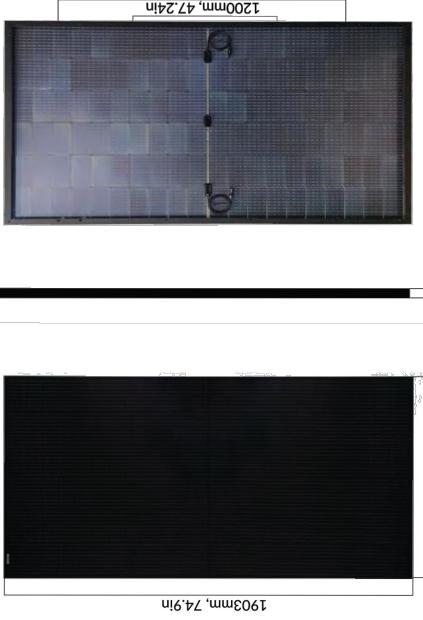
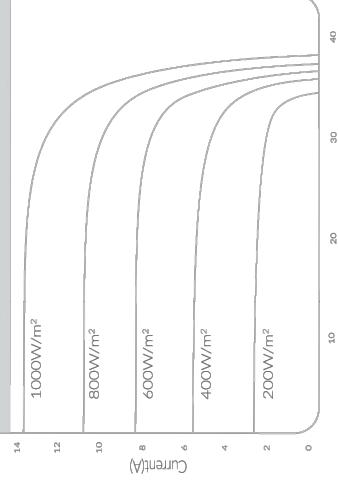
IQ8M

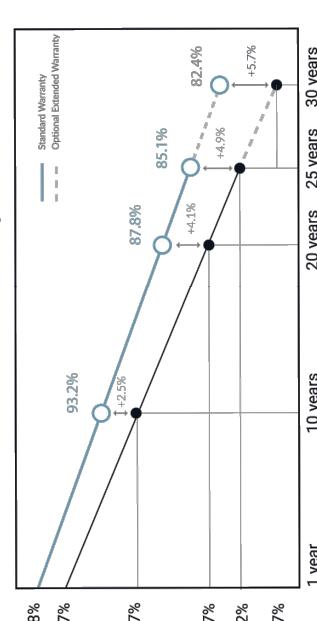
 <p>EXPERT SOLAR LLC ADD: 14320 MCCORMICK DRTAMPA, FL 33626 CONTACT: (800) 340-0881</p>		 <p>William M. NICHOLSON No. 37862 STATE OF FLORIDA LICENSE PROFESSIONAL ENGINEER</p>																																																																																																																																													
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IQ Gateway printed circuit board	IQ Gateway is the platform for total energy management for comprehensive remote maintenance and management of the Enphase IQ System	Busbar	125A busbar with support for 1x IQ Gateway, breaker and 4x 20A breaker for installing IQ Series Microinverters and IQ Battery SP	IQ Gateway breaker	Circuit breaker: 2-pole, 10 A/5 A	Production CT	Prewired revenue-grade solid core CTs, accurate up to 0.5%	Consumption CT	Two consumption metering clamp CTs, shipped with the box, accurate up to 2.5%	IQ Battery CT	One battery metering clamp CT, shipped with the box, accurate up to 2.5%	CTRL board	Control board for wind communication with IQ System Controller 3/3G and the IQ Battery SP	Enphase Mobile Connect (only with IQ Combiner 5C)	4G-based LTE/MiFi cellular modem (CELLMODEM-MH-06-SP-05) with a 5-year T-Mobile data plan	Accessories kit	Spare part headers for CTRL board	ACCESSORIES AND REPLACEMENT PARTS (NOT INCLUDED, ORDER SEPARATELY)		MODEL NUMBER	IQ Combiner 5 (X-IQ-AM-240-5)	IQ Combiner 5C (X-IQ-AM-240-5C)	IQ Combiner 5C with IQ Gateway printed circuit board for integrated revenue grade PV production metering (ANSI C20.405%), consumption monitoring (±2.5%) and IQ Battery monitoring (±2.5%). 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Branch circuits (solar and/or storage)	Up to four 2-pole Eaton BR series distributed generation (DG) breakers only (not included)																																																																																																																																														
Maximum total branch circuit breaker rating (input)	80 A of distributed generation (DG) A with IQ Gateway breaker included																																																																																																																																														
IQ Gateway rating	10 A or 15 A rating GE/Siemens/Eaton included																																																																																																																																														
Production metering CT	200 A solid core pre-installed and wired to IQ Gateway																																																																																																																																														
Consumption monitoring CT (CT-200-CLAMP)	A pair of 200 A clamp-style current transformers is included with the box																																																																																																																																														
IQ Battery metering CT	200 A clamp-style current transformer for IQ Battery metering, included with the box																																																																																																																																														
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<p>The IQ Combiner 5/5C consolidates interconnection equipment into a single enclosure and streamlines IQ Series Microinverters and IQ Gateway installation by providing a consistent, communication and control solution for residential and commercial applications. IQ Combiner 5/5C uses wired control and is compatible with IQ System Controller, 3/3G and IQ Battery SP.</p> <p>The IQ Combiner 5/5C, along with IQ Series Microinverters, IQ System Controller, 3/3G and IQ Battery 5P provides you with a complete grid-agnostic Enphase Energy System.</p>																																																																																																																																															
																																																																																																																																															
<p>IQ Series Microinverters</p> <p>The high-powered smart grid-ready IQ Series Microinverters (IQ, IQ+, and IQ Series) dramatically simplify the installation process.</p>																																																																																																																																															
																																																																																																																																															
<p>IQ Load Controller</p> <p>Helps prioritize essential appliances during a grid outage to optimize energy consumption and prolong battery life.</p>																																																																																																																																															
																																																																																																																																															
<p>IQ Battery 5P</p> <p>Full integrated AC battery system, includes six field-replaceable IQDB-BAT Microinverters</p>																																																																																																																																															
																																																																																																																																															
<p>LISTED</p> <p>5-year limited warranty</p> <p>• A solar-and-grid-ready cell inverter for systems up to 60 microinverters. (Available in the US, Canada, Mexico, Puerto Rico, and the US Virgin Islands, where there is adequate cellular service in the installation area.)</p>																																																																																																																																															
<p>© 2023 Enphase. All rights reserved. Enphase, the e and CC logos, IQ, and certain other marks are listed at https://enphase.com/legal/usage-guidelines are trademarks of Enphase Energy, Inc. in the US and other countries. Data subject to change.</p>																																																																																																																																															
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 <p>EXPERT SOLAR LLC ADD: 14320 MCCORMICK DRTAMPA, FL 33626 CONTACT: (800) 340-0881</p>		 <p>William M. NICHOLSON No. 37862 STATE OF FLORIDA PROFESSIONAL ENGINEER</p>																									
<p>7450 SW 19TH AVE RD, OCALA, FL 34476</p>		<p>7450 SW 19TH AVE RD, NICOLAS PACHECO TRUJILLO</p>																									
<p>Digitally signed by nicholas w nicholson Date: nichols 2024-07-29 10:42:51 -04:00'</p>		<p>BATCHSHEET</p> <table border="1"> <tr> <td colspan="2">MECHANICAL DATA</td> </tr> <tr> <td>Dimensions (WxHxD)</td> <td>50.9 cm x 91.6 cm x 24.6 cm (20.7 in x 36 in x 9.7 in)</td> </tr> <tr> <td>Weight</td> <td>39.4 kg (87 lbs)</td> </tr> <tr> <td>Ambient temperature range</td> <td>-40°C to 50°C (-40°F to 122°F)</td> </tr> <tr> <td>Cooling</td> <td>Natural convection, fanless shield</td> </tr> <tr> <td>Enclosure environmental rating</td> <td>Outdoor NEMA type 3R, polycarbonate construction</td> </tr> <tr> <td>Maximum altitude</td> <td>2,500 meters (8,200 feet)</td> </tr> <tr> <td>WIRE SIZES</td> <td></td> </tr> <tr> <td>Connections</td> <td>Male lugs on the input bus lugs AC-combined (10, 10, 10) Battery generator lugs</td> </tr> <tr> <td>(All lugs are rated to 90°C)</td> <td>Neutral (large lugs) Neutral (large lugs)</td> </tr> <tr> <td>Neutral and ground bars</td> <td>Neutral lugs (5/16-24 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MECHANICAL DATA																											
Dimensions (WxHxD)	50.9 cm x 91.6 cm x 24.6 cm (20.7 in x 36 in x 9.7 in)																										
Weight	39.4 kg (87 lbs)																										
Ambient temperature range	-40°C to 50°C (-40°F to 122°F)																										
Cooling	Natural convection, fanless shield																										
Enclosure environmental rating	Outdoor NEMA type 3R, polycarbonate construction																										
Maximum altitude	2,500 meters (8,200 feet)																										
WIRE SIZES																											
Connections	Male lugs on the input bus lugs AC-combined (10, 10, 10) Battery generator lugs																										
(All lugs are rated to 90°C)	Neutral (large lugs) Neutral (large lugs)																										
Neutral and ground bars	Neutral lugs (5/16-24 UNF) Large holes (10-32 UNF)																										
CIRCUIT BREAKER	UL 1741 UL 1741 CSA IEC 62804-240V 10 A 10 AIC Eaton BOC220240A UL 1741 UL 1741 CSA IEC 62804-240V 20 A 40 A 10 AIC Eaton BOC22040A UL 1741 UL 1741 CSA IEC 62804-240V 40 A 80 A 10 AIC Eaton BOC22080A UL 1741 UL 1741 CSA IEC 62804-240V 80 A 160 A 10 AIC Eaton BOC22160A UL 1741 UL 1741 CSA IEC 62804-240V 160 A 320 A 10 AIC Eaton BOC22320A UL 1741 UL 1741 CSA IEC 62804-240V 320 A 640 A 10 AIC Eaton BOC22640A UL 1741 UL 1741 CSA IEC 62804-240V 640 A 1280 A 10 AIC Eaton BOC221280A UL 1741 UL 1741 CSA IEC 62804-240V 1280 A 2560 A 10 AIC Eaton BOC222560A UL 1741 UL 1741 CSA IEC 62804-240V 2560 A 5120 A 10 AIC Eaton BOC225120A UL 1741 UL 1741 CSA IEC 62804-240V 5120 A 10240 A 10 AIC Eaton BOC2210240A UL 1741 UL 1741 CSA IEC 62804-240V 10240 A 20480 A 10 AIC Eaton BOC2220480A UL 1741 UL 1741 CSA IEC 62804-240V 20480 A 40960 A 10 AIC Eaton BOC2240960A UL 1741 UL 1741 CSA IEC 62804-240V 40960 A 81920 A 10 AIC Eaton BOC2281920A UL 1741 UL 1741 CSA IEC 62804-240V 81920 A 163840 A 10 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 <p>EXPERT SOLAR LLC ADD: 14320 MCCORMICK DR TAMPA, FL 33626 CONTACT: (800) 340-0881</p>		 <p>William M. Nicholson No. 37862 STATE OF FLORIDA PROFESSIONAL ENGINEERING LICENSURE</p>																																													
<p>7450 SW 19TH AVE RD, OCALA, FL 34476 NICOLAS PACHECO TRUJILLO</p>																																															
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One top shield is required for UL9540A Two M5 seismic screws for securing the battery unit on the bottom mounting bracket Two M4 grounding screws for securing the top shield on the bottom mounting bracket Two M5 ID cover grounding screws for the EMC requirement Six cable ties for securing field cables to the unit Spare CTRL connector without resistor for CTRL wiring Spare CTRL connector with resistor for CTRL wiring Quick Installation Guide (QIG)</p> </td> </tr> <tr> <td colspan="2"> <p>OPTIONAL ACCESSORIES AND REPLACEMENT PARTS</p> </td> </tr> <tr> <td colspan="2"> <p>IQBD-BAT-RMA B05-102-US00-1-3-RMA B05-OK-0550-O B05-CP-096-O B05-WB-0543-O IQBATTERY-HDL-5 B05-ACB-0560-O B05-ANB-0563-O B05-NIC-0524-O B05-NIC-0524-O-NUC5-0524-O 0U-INPUT [A/C] Rated (continuous) output power Peak output power Nominal voltage/range Nominal frequency/range Rated output current (@240 VAC) Peak output current (@240 VAC) Power factor (adjustable) Power factor (adjustable) Maximum units per 20A branch circuit Maximum conductor size supported Overcurrent protection device (OCPD) for 3 AWG cable Interconnection AC round-trip efficiency^a</p> </td> </tr> <tr> <td colspan="2"> <p>POWER</p> <ul style="list-style-type: none"> Provides 3.84 kVA continuous and 7.98 kVA peak power Double the available power per kWh of prior generations of IQ Battery Includes six embedded IQBD-BAT Microinverters </td> </tr> <tr> <td colspan="2"> <p>RELIABILITY</p> <ul style="list-style-type: none"> 15 years limited warranty Cool passively with no moving parts or fans Uses wired communication for fast and consistent connection Updates software and firmware remotely </td> </tr> <tr> <td colspan="2"> <p>SIMPLICITY</p> <ul style="list-style-type: none"> Fully integrated AC battery system Installs and commissions easily Supports backup, self-consumption, and time-of-use (TOU) modes Offers homeowners remote monitoring and control from the Enphase App Field replaceable components </td> </tr> <tr> <td colspan="2"> <p>SAFETY</p> <ul style="list-style-type: none"> Evaluates to UL 9540A for large scale fire testing and reduced separation distance as required in 2021IRC R328.3.1, 2021IFC 2071.5, and 2023 NFPA 855 15.3 and 9.1.5^b Uses lithium iron phosphate (LFP) chemistry for maximum safety and longevity </td> </tr> <tr> <td colspan="2"> <p>Dimensions in inches</p> </td></tr> <tr> <td colspan="2"> <p>Floor mounted with pedestal (sold separately)</p> </td></tr> <tr> <td colspan="2"> <p>Wall mounted</p> </td></tr> <tr> <td colspan="2"> <p>UL LISTED</p> <p>15 year limited warranty</p> </td> </tr> <tr> <td colspan="2"> <p>PERMIT DEVELOPER</p> <table border="1"> <tr> <td>DATE</td> <td>06/12/2024</td> </tr> <tr> <td>DESIGNER</td> <td>OAW</td> </tr> <tr> <td>REVIEWER</td> <td></td> </tr> </table> </td> </tr> <tr> <td colspan="2"> <p>SHEET NAME COMBINER DATASHEET</p> </td> </tr> <tr> <td colspan="2"> <p>SHEET NUMBER DS-03</p> </td> </tr> </table>				<p>IQ Battery 5P</p>		<p>DATA SHEET ENGLISH</p>		<p>IQ Battery 5P</p>		<p>MODEL NUMBER IQBATTERY-SP-5P-NA</p>		<p>WHAT'S IN THE BOX</p>		<p>IQ Battery SP unit (B05-102-US00-1-3) IQ Battery SP cover with two conduit covers for the left and right sides of the unit Bottom mounting bracket for mounting the battery on the wall. 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 <p>EXPERT SOLAR LLC ADD: 14320 MCCORMICK DRTAMPA, FL 33626 CONTACT: (800) 340-0681</p>	<p>Signature with Seal</p> 	<p>OCALA, FL 34476 7450 SW 19TH AVE RD, NICOLAS PACHECO TRUJILLO</p>	<p>DATE: 07-26-2024 SHOWN 24 MODULES OF APOTOS DNA-20-BF1-440W/450W SOLAR MODULES ADDED TO EXISTING GROUNDING FORM ADDED 1 ENPHASE IN BATTERY 5P 07-11-2024</p>	<p>REV DATE DESCRIPTION</p> <table border="1"> <tr> <td>3</td> <td>2</td> <td>1</td> <td>07-26-2024</td> </tr> </table>	3	2	1	07-26-2024
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<p>DNA™ 120 Bifacial</p>	
<p>Designed & Engineered in Silicon Valley</p>	
<p>440W 450W 450W</p>	
<p>Solar for Innovators</p>	
<p>Residential Commercial</p>	
<p>Our DNA Split Cell Series uses advanced selective emitter PERC technology with thin film layers to improve heat tolerance, increase photon capture, minimize resistive loss, and use 5% more of the available active area for optimal power performance. Our panels exceed IEC standards and come with an industry leading, 30-year warranty.</p>	
<p>Linear Performance Warranty</p> 	
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<p>Apotos Solar Technology 2081 Business Center Drive, Ste 100 Irvine, CA 92612 www.apotosolar.com info@apotosolar.com</p>	

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Signatures: 5

Envelope Originator:

Certificate Pages: 5

Initials: 0

April Adolf

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Ocala, FL 34471

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Alyssa Winston

awinston@ocalafl.org

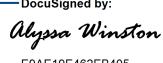
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Chris Gowder

chris.gowder@fmpa.com

VP of IT/OT and System Ops

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Event Type	Details	Timestamp
Intermediary Delivery Events	Status	Timestamp
Certified Delivery Events	Status	Timestamp
Carbon Copy Events	Status	Timestamp
Witness Events	Signature	Timestamp
Notary Events	Signature	Timestamp
Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	9/10/2024 2:39:25 PM
Certified Delivered	Security Checked	9/12/2024 4:26:39 PM
Signing Complete	Security Checked	9/12/2024 4:26:47 PM
Completed	Security Checked	9/12/2024 4:26:47 PM
Payment Events	Status	Timestamps
Electronic Record and Signature Disclosure		

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If you decide to receive notices and disclosures from us electronically, you may at any time change your mind and tell us that thereafter you want to receive required notices and disclosures only in paper format. How you must inform us of your decision to receive future notices and disclosure in paper format and withdraw your consent to receive notices and disclosures electronically is described below.

Consequences of changing your mind

If you elect to receive required notices and disclosures only in paper format, it will slow the speed at which we can complete certain steps in transactions with you and delivering services to you because we will need first to send the required notices or disclosures to you in paper format, and then wait until we receive back from you your acknowledgment of your receipt of such paper notices or disclosures. Further, you will no longer be able to use the DocuSign system to receive required notices and consents electronically from us or to sign electronically documents from us.

All notices and disclosures will be sent to you electronically

Unless you tell us otherwise in accordance with the procedures described herein, we will provide electronically to you through the DocuSign system all required notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any notice or disclosure, we prefer to provide all of the required notices and disclosures to you by the same method and to the same address that you have given us. Thus, you can receive all the disclosures and notices electronically or in paper format through the paper mail delivery system. If you do not agree with this process, please let us know as described below. Please also see the paragraph immediately above that describes the consequences of your electing not to receive delivery of the notices and disclosures electronically from us.

How to contact City of Ocala - Procurement & Contracting:

You may contact us to let us know of your changes as to how we may contact you electronically, to request paper copies of certain information from us, and to withdraw your prior consent to receive notices and disclosures electronically as follows:

To contact us by email send messages to: contracts@ocalafl.org

To advise City of Ocala - Procurement & Contracting of your new email address

To let us know of a change in your email address where we should send notices and disclosures electronically to you, you must send an email message to us at contracts@ocalafl.org and in the body of such request you must state: your previous email address, your new email address. We do not require any other information from you to change your email address.

If you created a DocuSign account, you may update it with your new email address through your account preferences.

To request paper copies from City of Ocala - Procurement & Contracting

To request delivery from us of paper copies of the notices and disclosures previously provided by us to you electronically, you must send us an email to contracts@ocalafl.org and in the body of such request you must state your email address, full name, mailing address, and telephone number. We will bill you for any fees at that time, if any.

To withdraw your consent with City of Ocala - Procurement & Contracting

To inform us that you no longer wish to receive future notices and disclosures in electronic format you may:

- i. decline to sign a document from within your signing session, and on the subsequent page, select the check-box indicating you wish to withdraw your consent, or you may;
- ii. send us an email to contracts@ocalafl.org and in the body of such request you must state your email, full name, mailing address, and telephone number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

Required hardware and software

The minimum system requirements for using the DocuSign system may change over time. The current system requirements are found here: <https://support.docusign.com/guides/signer-guide-signing-system-requirements>.

Acknowledging your access and consent to receive and sign documents electronically

To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please confirm that you have read this ERSD, and (i) that you are able to print on paper or electronically save this ERSD for your future reference and access; or (ii) that you are able to email this ERSD to an email address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format as described herein, then select the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

By selecting the check-box next to 'I agree to use electronic records and signatures', you confirm that:

- You can access and read this Electronic Record and Signature Disclosure; and
- You can print on paper this Electronic Record and Signature Disclosure, or save or send this Electronic Record and Disclosure to a location where you can print it, for future reference and access; and
- Until or unless you notify City of Ocala - Procurement & Contracting as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by City of Ocala - Procurement & Contracting during the course of your relationship with City of Ocala - Procurement & Contracting.