

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: Ehoud Buton

Mailing Address: 1323 SE 3rd Street

City: Ocala State: FL Zip Code: 34471

Phone Number: 352-277-7757 Alternate Phone Number: _____

Email Address: ehoudb@gmail.com Fax Number: _____

Ocala Electric Utility Customer Account Number: 518533-219082

2. RGS Facility Information

Facility Location: 1323 SE 3rd Street Ocala, Fl. 34471

Ocala Electric Utility Customer Account Number: 518533-219082

RGS Manufacturer: Hyundai Energy Soultions

Manufacturer's Address: _____

Reference or Model Number: HIS-S410YH(BK) (410W) MODULES

Serial Number: _____

(Continued on Sheet No.19.1)

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

Effective: October 1, 2019

Ocala Electric Utility
Ocala, Florida
(Continue from Sheet No. 19.0)

FIRST REVISED SHEET NO. 19.1
CANCELS ORIGINAL SHEET NO. 19.1

3. Facility Rating Information

Gross Power Rating: 3.83kWac ("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 PV

Anticipated In- Service Date: 3/1/25

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.

(Continued on Sheet No. 19.2)

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

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 19.1)

FIRST REVISED SHEET NO. 19.2
CANCELS ORIGINAL SHEET NO. 19.2


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: Ehoud Buton
(Print Name)

Date: 2/5/2025


(Signature)

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

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA

FIRST REVISED SHEET NO. 20.0
CANCELS ORIGINAL SHEET NO. 20.0

Tri-Party Net-Metering Power Purchase Agreement

This Tri-Party Net-Metering Power Purchase Agreement (this “Agreement”) is entered into this 5th day of February, 2025, 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 Ehoud Buton, 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.

(Continued on Sheet No. 20.1)

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

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 20.0)

FIRST REVISED SHEET NO. 20.1
CANCELS ORIGINAL SHEET NO. 20.1

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.

(Continued on Sheet No. 20.2)

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

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 20.1)

FIRST REVISED SHEET NO. 20.2
CANCELS ORIGINAL SHEET NO. 20.2

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.

(Continued on Sheet No. 20.3)

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

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 20.2)

FIRST REVISED SHEET NO. 20.3
CANCELS ORIGINAL SHEET NO. 20.3

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.

(Continued on Sheet No. 20.4)

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

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 20.3)

FIRST REVISED SHEET NO. 20.4
CANCELS ORIGINAL SHEET NO. 20.4

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.

(Continued on Sheet No. 20.5)

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

Effective: October 1, 2019

CONTRACT# ELE/250512

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 20.4)


FIRST REVISED SHEET NO. 20.5
CANCELS ORIGINAL SHEET NO. 20.5

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
5510814385A4E1
Title: CFO
Date: 3/25/2025

Florida Municipal Power Agency

By: DocuSigned by:

007F58E8B34B474
Title: Chief Sys Ops & Tech Officer
Date: 3/27/2025

Customer

By: Ehoud Buton Date: 2/5/2025
(Print Name)

(Signature)

Customer's City of Ocala Electric Utility Account Number: 518533-219082

Approved as to form and legality:

DocuSigned by:
William E. Sexton
5510814385A4E1
William E. Sexton, Esq.
City Attorney

(Continued on Sheet No. 20.6)

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

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 20.5)

FIRST REVISED SHEET NO. 20.6
CANCELS ORIGINAL SHEET NO. 20.6

**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.

OCALA ELECTRIC UTILITY
OCALA, FLORIDA

FIRST REVISED SHEET NO. 21.0
CANCELS ORIGINAL SHEET NO. 21.0

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

This **Agreement** is made and entered into this 5th day of February, 20 25, by and between Ehoud Buton, (hereinafter called "**Customer**"), located at 1323 SE 3rd Street 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: 1323 SE 3rd Street Ocala, Fl. 34471.

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 "FMPPA") have entered into the All-Requirements Power Supply Contract pursuant to which the City of Ocala has agreed to purchase and receive, and FMPPA 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, FMPPA, 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:

(Continued on Sheet No. 21.1)

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

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 21.0)

FIRST REVISED SHEET NO. 21.1
CANCELS ORIGINAL SHEET NO. 21.1

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.

(Continued to Sheet No. 21.2)

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

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 21.1)

FIRST REVISED SHEET NO. 21.2
CANCELS ORIGINAL SHEET NO. 21.2

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.

(Continued on Sheet No. 21.3)

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

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 21.2)

FIRST REVISED SHEET NO. 21.3
CANCELS ORIGINAL SHEET NO. 21.3

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.

(Continued on Sheet No. 21.4)

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

Effective: October 1, 2019

OCALA ELECTRIC UTILITY
OCALA, FLORIDA
(Continued from Sheet No. 21.3)

FIRST REVISED SHEET NO. 21.4
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

CONTRACT# ELE/250512

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:

Customer:

By: Signed by:
Janice Mitchell
55199B43858A4E1...

Title: CFO

Date: 3/25/2025

By: Ehoud Buton
(Print Name)


(Signature)

Date: 2/5/2025

City of Ocala Electric Utility Account Number:

518533-219082

Approved as to form and legality:

DocuSigned by:
William E. Sexton
55199B43858A4E1...
William E. Sexton, Esq.
City Attorney

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

Effective: October 1, 2019

CONTRACT# ELE/250512



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

1/13/2025

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

IMPORTANT: If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Acentria Insurance - Gordon Reiss Insurance
1823 E Fort King Street
Suite 200
Ocala FL 34471

License#: L100460

BUTONEHO01

INSURED
Ehoud Buton
9691 SW 95TH Court, Unit A
Ocala FL 34481

CONTACT NAME: Katrina Grantham

PHONE (A/C, No, Ext): 352-671-1833

FAX (A/C, No): 352-671-1834

E-MAIL ADDRESS: katrina.grantham@acentria.com

INSURER(S) AFFORDING COVERAGE

NAIC #

INSURER A : Nautilus Insurance Company

17370

INSURER B :

INSURER C :

INSURER D :

INSURER E :

INSURER F :

COVERAGES

CERTIFICATE NUMBER: 1437616525

REVISION NUMBER:

THIS IS TO CERTIFY THAT 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 CERTIFICATE 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.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS																								
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY			NN1703028	5/24/2024	5/24/2025	<table border="1"> <tr><td>EACH OCCURRENCE</td><td>\$ 1,000,000</td></tr> <tr><td>DAMAGE TO RENTED PREMISES (Ea occurrence)</td><td>\$ 100,000</td></tr> <tr><td>MED EXP (Any one person)</td><td>\$ 5,000</td></tr> <tr><td>PERSONAL & ADV INJURY</td><td>\$ 1,000,000</td></tr> <tr><td>GENERAL AGGREGATE</td><td>\$ 2,000,000</td></tr> <tr><td>PRODUCTS - COMP/OP AGG</td><td>\$</td></tr> <tr><td></td><td>\$</td></tr> <tr><td>COMBINED SINGLE LIMIT (Ea accident)</td><td>\$</td></tr> <tr><td>BODILY INJURY (Per person)</td><td>\$</td></tr> <tr><td>BODILY INJURY (Per accident)</td><td>\$</td></tr> <tr><td>PROPERTY DAMAGE (Per accident)</td><td>\$</td></tr> <tr><td></td><td>\$</td></tr> </table>	EACH OCCURRENCE	\$ 1,000,000	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100,000	MED EXP (Any one person)	\$ 5,000	PERSONAL & ADV INJURY	\$ 1,000,000	GENERAL AGGREGATE	\$ 2,000,000	PRODUCTS - COMP/OP AGG	\$		\$	COMBINED SINGLE LIMIT (Ea accident)	\$	BODILY INJURY (Per person)	\$	BODILY INJURY (Per accident)	\$	PROPERTY DAMAGE (Per accident)	\$		\$
EACH OCCURRENCE	\$ 1,000,000																														
DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100,000																														
MED EXP (Any one person)	\$ 5,000																														
PERSONAL & ADV INJURY	\$ 1,000,000																														
GENERAL AGGREGATE	\$ 2,000,000																														
PRODUCTS - COMP/OP AGG	\$																														
	\$																														
COMBINED SINGLE LIMIT (Ea accident)	\$																														
BODILY INJURY (Per person)	\$																														
BODILY INJURY (Per accident)	\$																														
PROPERTY DAMAGE (Per accident)	\$																														
	\$																														
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:																														
	AUTOMOBILE LIABILITY						<table border="1"> <tr><td>COMBINED SINGLE LIMIT (Ea accident)</td><td>\$</td></tr> <tr><td>BODILY INJURY (Per person)</td><td>\$</td></tr> <tr><td>BODILY INJURY (Per accident)</td><td>\$</td></tr> <tr><td>PROPERTY DAMAGE (Per accident)</td><td>\$</td></tr> <tr><td></td><td>\$</td></tr> </table>	COMBINED SINGLE LIMIT (Ea accident)	\$	BODILY INJURY (Per person)	\$	BODILY INJURY (Per accident)	\$	PROPERTY DAMAGE (Per accident)	\$		\$														
COMBINED SINGLE LIMIT (Ea accident)	\$																														
BODILY INJURY (Per person)	\$																														
BODILY INJURY (Per accident)	\$																														
PROPERTY DAMAGE (Per accident)	\$																														
	\$																														
	<input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS																														
	UMBRELLA LIAB						EACH OCCURRENCE \$																								
	EXCESS LIAB						AGGREGATE \$																								
	DED RETENTION \$						\$																								
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						<table border="1"> <tr><td>PER STATUTE</td><td>OTH-ER</td></tr> <tr><td>E.L. EACH ACCIDENT</td><td>\$</td></tr> <tr><td>E.L. DISEASE - EA EMPLOYEE</td><td>\$</td></tr> <tr><td>E.L. DISEASE - POLICY LIMIT</td><td>\$</td></tr> </table>	PER STATUTE	OTH-ER	E.L. EACH ACCIDENT	\$	E.L. DISEASE - EA EMPLOYEE	\$	E.L. DISEASE - POLICY LIMIT	\$																
PER STATUTE	OTH-ER																														
E.L. EACH ACCIDENT	\$																														
E.L. DISEASE - EA EMPLOYEE	\$																														
E.L. DISEASE - POLICY LIMIT	\$																														
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A																												

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
1321 SE 3rd Street
Ocala, FL 34471

CERTIFICATE HOLDER

CANCELLATION

City of Ocala
110 SE Watula Avenue
Ocala FL 34471

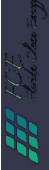
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

© 1988-2014 ACORD CORPORATION. All rights reserved.

ACORD 25 (2014/01)

The ACORD name and logo are registered marks of ACORD



**FLORIDA CLEAN ENERGY
INCORPORATED**
442 W KENNEDY BLVD SUITE 310
TAMPA, FL 33606

REVISIONS	
DESCRIPTION	DATE

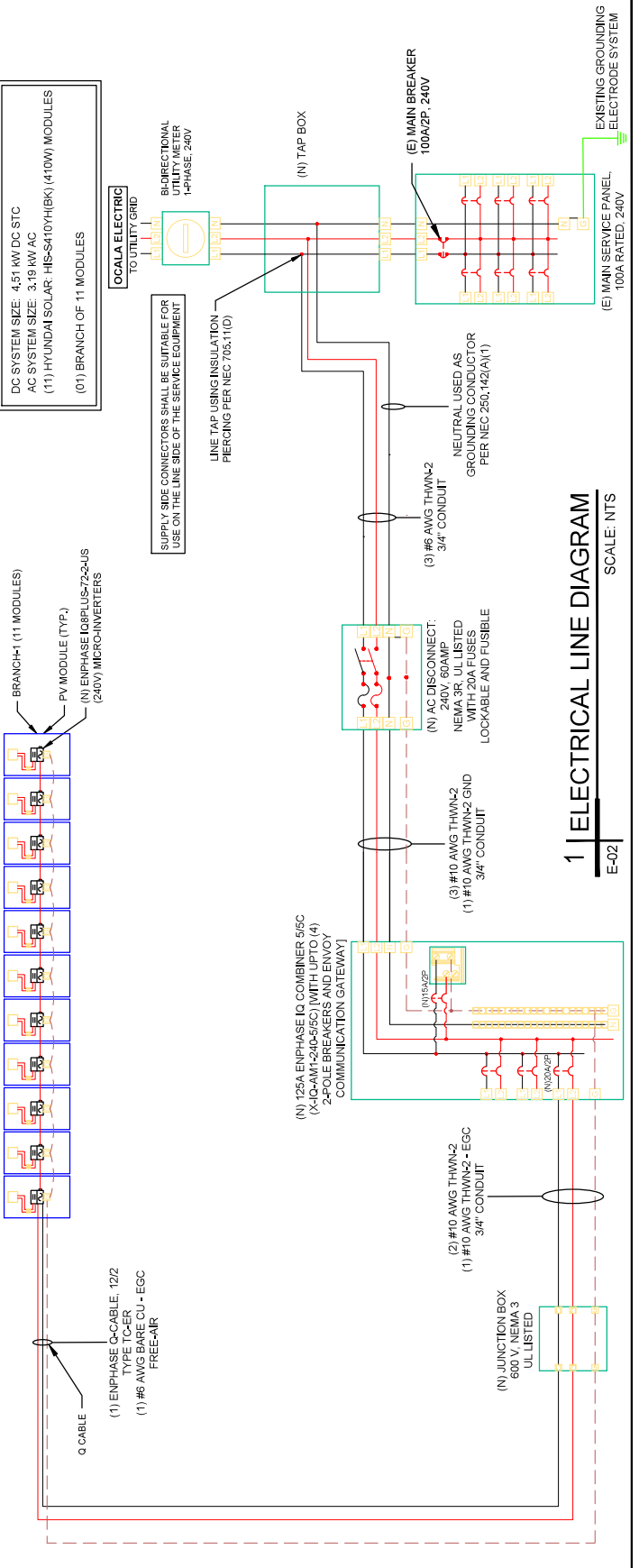
DATE: 12/27/2024
PROJECT NAME: EHOUD BUTON 1323
1321 SOUTHEAST 3RD STREET,
OCALA, FL 34471

SHEET NAME
**ELECTRICAL
LINE DIAGRAM &
WIRING CALCULATIONS**

SHEET SIZE
**ANSI B
11" X 17"**

SHEET NUMBER
E-02

Signature with Seal



SOLAR MODULE SPECIFICATIONS

MANUFACTURER / MODEL #	
HYUNDAI SOLAR HIS-S410Y(HBK)	
WMP	38.1V
WPP	10.8V
VOC	45.5V
ISC	11.40A
MODULE DIMENSION	75.95" x 40.37" W x 1.39" (H) (20)

INVERTER SPECIFICATIONS

MANUFACTURER / MODEL #	
ENPHASE IQ8PLUS-72-2-US (240V) MICRO-INVERTERS	
MPPT VOLTAGE RANGE	25-60V
MAXIMUM INPUT VOLTAGE	60V
MAXIMUM INPUT CURRENT	11
MAXIMUM OUTPUT CURRENT	1.27A
CEC WEIGHTED EFFICIENCY	87%

AMBIENT TEMPERATURE SPECS

RECORD LOW TEMP	
AMBIENT TEMP (HIGH TEMP 7N)	-45
CONDIT MINIMUM HEIGHT FROM ROOF	30
CONDUCTOR TEMPERATURE RATING	90
SEFAS MODULE TEMPERATURE COEFFICIENT OF Voc	-2.268%/°C

AC CONDUCTOR AMPACITY CALCULATIONS:
FROM IQ COMBINER BOX TO JUNCTION BOX

EXPECTED WIRE TEMP (In Cable)	30
TEMP CORRECTION PER TABLE 310.15(B)(1)	1.00
# OF CURRENT CARRYING CONDUCTORS	N/A
# OF C.C. CONDUCTORS CORRECTION PER NEC 310.15(C)(1)	1.00
DEFULT CONDUCTOR SIZE	12 AWG
DEFULT CONDUCTOR AMPACITY	30A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 90.2(A) & (B)	16.64A
1.25 x MAX AC OUTPUT x MAX # OF MICROINVERTERS CIRCUIT	30.00A
DERATED CIRCUIT CONDUCTOR AMPACITY	30.00A
Result should be greater than (16.64A)	

AC CONDUCTOR AMPACITY CALCULATIONS:
FROM JUNCTION BOX TO IQ COMBINER BOX

EXPECTED WIRE TEMP (In Cable)	30
TEMP CORRECTION PER TABLE 310.15(B)(1)	1.00
# OF CURRENT CARRYING CONDUCTORS	N/A
# OF C.C. CONDUCTORS CORRECTION PER NEC 310.15(C)(1)	1.00
DEFULT CONDUCTOR SIZE	10 AWG
DEFULT CONDUCTOR AMPACITY	40A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 90.2(A) & (B)	16.64A
1.25 x MAX AC OUTPUT x MAX # OF MICROINVERTERS CIRCUIT	40.00A
DERATED CIRCUIT CONDUCTOR AMPACITY	40.00A
Result should be greater than (16.64A)	

AC CONDUCTOR AMPACITY CALCULATIONS:
FROM IQ COMBINER BOX TO AGD

EXPECTED WIRE TEMP (In Cable)	30
TEMP CORRECTION PER TABLE 310.15(B)(1)	1.00
# OF CURRENT CARRYING CONDUCTORS	N/A
# OF C.C. CONDUCTORS CORRECTION PER NEC 310.15(C)(1)	1.00
DEFULT CONDUCTOR SIZE	12 AWG
DEFULT CONDUCTOR AMPACITY	30A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 90.2(A) & (B)	16.64A
1.25 x MAX AC OUTPUT x TOTAL # OF MICROINVERTERS	40.00A
DERATED CIRCUIT CONDUCTOR AMPACITY	40.00A
Result should be greater than (16.64A)	

AC CONDUCTOR AMPACITY CALCULATIONS:
FROM AGD TO POI


EXPECTED WIRE TEMP (In Cable)	30
TEMP CORRECTION PER TABLE 310.15(B)(1)	1.00
# OF CURRENT CARRYING CONDUCTORS	N/A
# OF C.C. CONDUCTORS CORRECTION PER NEC 310.15(C)(1)	1.00
DEFULT CONDUCTOR SIZE	8 AWG
DEFULT CONDUCTOR AMPACITY	85A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 90.2(A) & (B)	16.64A
1.25 x MAX AC OUTPUT x TOTAL # OF MICROINVERTERS	75.00A
DERATED CIRCUIT CONDUCTOR AMPACITY	75.00A
Result should be greater than (16.64A)	

ELECTRICAL NOTES

1. ALL EQUIPMENT SHALL BE LISTED BY UL OR OTHER NRTL, AND LABELED FOR ITS APPLICATION.
2. ALL WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL CODES.
3. WIRING, CONDUIT, AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HP, OR VALLEY.
4. WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.26.
5. DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEM. CONTRACTOR SHALL FURNISH ALL NECESSARY OUTLETS, SUPPORTS, FITTINGS, AND CONDUIT.
6. WHERE SPECIFIED, JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY.
7. ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND ACCESSIBLE.
8. INSTALL MODULE AND RACKING GROUNDING PER MANUFACTURER'S INSTRUCTION.

2 | WIRING CALCULATIONS

SCALE: NTS



FLORIDA CLEAN ENERGY INCORPORATED
442 W KENNEDY BLVD SUITE 310
TAMPA, FL 33606

REVISIONS

DESCRIPTION	DATE	REV

PROJECT NAME

1321 SOUTHEAST 3RD STREET,
OCALA, FL 34471

EHOUDBUTON 1323

SHEET NAME

MICROINVERTER DATA SHEET

SHEET SIZE

ANSIB
11" X 17"

SHEET NUMBER

DS-02

Signature with Seal

IQ8 Series Microinverters

INPUT DATA (DC)		108-80-2-US	108-80-2-US	108-80-2-US	108-80-2-US	108-80-2-US	108-80-2-US	108-80-2-US	108-80-2-US
Commonly used module pairing ^a		W	235 - 350	235 - 440	200 - 400	295 - 500	320 - 540+	295 - 500	320 - 540+
Module compatibility		60-cell/120 half-cell	60-cell/120 half-cell	60-cell/120 half-cell	60-cell/120 half-cell	60-cell/120 half-cell	60-cell/120 half-cell	60-cell/120 half-cell	60-cell/120 half-cell
MPPT voltage range		V	27 - 37	23 - 45	33 - 45	36 - 45	36 - 45	36 - 45	36 - 45
Operating range		V	25 - 48	23 - 45	33 - 45	36 - 45	36 - 45	36 - 45	36 - 45
Min/max start voltage		V	30 / 48	30 / 48	30 / 48	30 / 48	30 / 48	30 / 48	30 / 48
Max input DC voltage		V	50	50	50	50	50	50	50
Max DC current ^b [module Isc]		A	15	15	15	15	15	15	15
Overvoltage class DC port		II	II	II	II	II	II	II	II
DC port backfeed current		mA	0	0	0	0	0	0	0
PV array configuration		1x Ungrounded array, No split and DC side protection required, AC side protection required max 20A per branch circuit	1x Ungrounded array, No split and DC side protection required, AC side protection required max 20A per branch circuit	1x Ungrounded array, No split and DC side protection required, AC side protection required max 20A per branch circuit	1x Ungrounded array, No split and DC side protection required, AC side protection required max 20A per branch circuit	1x Ungrounded array, No split and DC side protection required, AC side protection required max 20A per branch circuit	1x Ungrounded array, No split and DC side protection required, AC side protection required max 20A per branch circuit	1x Ungrounded array, No split and DC side protection required, AC side protection required max 20A per branch circuit	1x Ungrounded array, No split and DC side protection required, AC side protection required max 20A per branch circuit
OUTPUT DATA (AC)		108-80-2-US	108-80-2-US	108-80-2-US	108-80-2-US	108-80-2-US	108-80-2-US	108-80-2-US	108-80-2-US
Peak output power		VA	245	300	330	366	384	366	384
Max continuous output power		VA	240	290	325	349	380	360	380
Nominal (L-L) voltage/range ^d		V	240 / 211 - 264	240 / 211 - 264	240 / 211 - 264	240 / 211 - 264	240 / 211 - 264	240 / 211 - 264	240 / 211 - 264
Max continuous output current		A	1.0	1.21	1.35	1.45	1.58	1.45	1.58
Nominal frequency		Hz	60	60	60	60	60	60	60
Extended frequency range		Hz	50 - 68	50 - 68	50 - 68	50 - 68	50 - 68	50 - 68	50 - 68
AC short circuit fault current over 3 cycles		A rms	2	2	2	2	2	2	2
Max units per 20 A (L-L) branch circuit ^e			16	13	11	11	10	10	9
Total harmonic distortion		%	<5%	<5%	<5%	<5%	<5%	<5%	<5%
Overvoltage class AC port		III	III	III	III	III	III	III	III
AC port backfeed current		mA	30	30	30	30	30	30	30
Power factor setting			1.0	1.0	1.0	1.0	1.0	1.0	1.0
Grid-tied power factor (adjustable)			0.85 leading - 0.85 lagging	0.85 leading - 0.85 lagging	0.85 leading - 0.85 lagging	0.85 leading - 0.85 lagging	0.85 leading - 0.85 lagging	0.85 leading - 0.85 lagging	0.85 leading - 0.85 lagging
Peak efficiency		%	97.5	97.6	97.6	97.6	97.6	97.6	97.4
CEC weighted efficiency		%	97	97	97	97.5	97	97	97
Night-time power consumption		mW	60	60	60	60	60	60	60
MECHANICAL DATA									
Ambient temperature range		-40°C to +60°C (-40°F to +140°F)							
Relative humidity range		4% to 100% (condensing)							
DC Connector type		MC4							
Dimensions (HxWxD)		212 mm (8.3") x 175 mm (6.9") x 30.2 mm (1.2")							
Weight		108 kg (238 lbs)							
Cooling		Natural convection - no fans							
Approved for vent locations		Yes							
Pollution degree		P03							
Enclosure		Class II double-insulated, corrosion resistant polymers enclosure							
Environ. category / UV exposure rating		NEMA Type 6 / outdoor							
COMPLIANCE									
Certifications		CA Rule 21 (UL 1741-SA), UL 62709-1, UL 1741/IEEE1547-FOC Part 15 Class B, IECES-0003 Class B, CAN/CSA-C22.2 NO. 603.01							

(1) The IQ8H-208 variant will be operating in grid-tied mode only at 208V AC. (2) No enforced DC/AC ratio. See the companion literature at <http://enphase.com/module-compatibility> (3) Maximum continuous input power is 1000W (4) 1000W (5) 1000W (6) 1000W (7) 1000W (8) 1000W (9) 1000W (10) 1000W (11) 1000W (12) 1000W (13) 1000W (14) 1000W (15) 1000W (16) 1000W (17) 1000W (18) 1000W (19) 1000W (20) 1000W (21) 1000W (22) 1000W (23) 1000W (24) 1000W (25) 1000W (26) 1000W (27) 1000W (28) 1000W (29) 1000W (30) 1000W (31) 1000W (32) 1000W (33) 1000W (34) 1000W (35) 1000W (36) 1000W (37) 1000W (38) 1000W (39) 1000W (40) 1000W (41) 1000W (42) 1000W (43) 1000W (44) 1000W (45) 1000W (46) 1000W (47) 1000W (48) 1000W (49) 1000W (50) 1000W (51) 1000W (52) 1000W (53) 1000W (54) 1000W (55) 1000W (56) 1000W (57) 1000W (58) 1000W (59) 1000W (60) 1000W (61) 1000W (62) 1000W (63) 1000W (64) 1000W (65) 1000W (66) 1000W (67) 1000W (68) 1000W (69) 1000W (70) 1000W (71) 1000W (72) 1000W (73) 1000W (74) 1000W (75) 1000W (76) 1000W (77) 1000W (78) 1000W (79) 1000W (80) 1000W (81) 1000W (82) 1000W (83) 1000W (84) 1000W (85) 1000W (86) 1000W (87) 1000W (88) 1000W (89) 1000W (90) 1000W (91) 1000W (92) 1000W (93) 1000W (94) 1000W (95) 1000W (96) 1000W (97) 1000W (98) 1000W (99) 1000W (100) 1000W (101) 1000W (102) 1000W (103) 1000W (104) 1000W (105) 1000W (106) 1000W (107) 1000W (108) 1000W (109) 1000W (110) 1000W (111) 1000W (112) 1000W (113) 1000W (114) 1000W (115) 1000W (116) 1000W (117) 1000W (118) 1000W (119) 1000W (120) 1000W (121) 1000W (122) 1000W (123) 1000W (124) 1000W (125) 1000W (126) 1000W (127) 1000W (128) 1000W (129) 1000W (130) 1000W (131) 1000W (132) 1000W (133) 1000W (134) 1000W (135) 1000W (136) 1000W (137) 1000W (138) 1000W (139) 1000W (140) 1000W (141) 1000W (142) 1000W (143) 1000W (144) 1000W (145) 1000W (146) 1000W (147) 1000W (148) 1000W (149) 1000W (150) 1000W (151) 1000W (152) 1000W (153) 1000W (154) 1000W (155) 1000W (156) 1000W (157) 1000W (158) 1000W (159) 1000W (160) 1000W (161) 1000W (162) 1000W (163) 1000W (164) 1000W (165) 1000W (166) 1000W (167) 1000W (168) 1000W (169) 1000W (170) 1000W (171) 1000W (172) 1000W (173) 1000W (174) 1000W (175) 1000W (176) 1000W (177) 1000W (178) 1000W (179) 1000W (180) 1000W (181) 1000W (182) 1000W (183) 1000W (184) 1000W (185) 1000W (186) 1000W (187) 1000W (188) 1000W (189) 1000W (190) 1000W (191) 1000W (192) 1000W (193) 1000W (194) 1000W (195) 1000W (196) 1000W (197) 1000W (198) 1000W (199) 1000W (200) 1000W (201) 1000W (202) 1000W (203) 1000W (204) 1000W (205) 1000W (206) 1000W (207) 1000W (208) 1000W (209) 1000W (210) 1000W (211) 1000W (212) 1000W (213) 1000W (214) 1000W (215) 1000W (216) 1000W (217) 1000W (218) 1000W (219) 1000W (220) 1000W (221) 1000W (222) 1000W (223) 1000W (224) 1000W (225) 1000W (226) 1000W (227) 1000W (228) 1000W (229) 1000W (230) 1000W (231) 1000W (232) 1000W (233) 1000W (234) 1000W (235) 1000W (236) 1000W (237) 1000W (238) 1000W (239) 1000W (240) 1000W (241) 1000W (242) 1000W (243) 1000W (244) 1000W (245) 1000W (246) 1000W (247) 1000W (248) 1000W (249) 1000W (250) 1000W (251) 1000W (252) 1000W (253) 1000W (254) 1000W (255) 1000W (256) 1000W (257) 1000W (258) 1000W (259) 1000W (260) 1000W (261) 1000W (262) 1000W (263) 1000W (264) 1000W (265) 1000W (266) 1000W (267) 1000W (268) 1000W (269) 1000W (270) 1000W (271) 1000W (272) 1000W (273) 1000W (274) 1000W (275) 1000W (276) 1000W (277) 1000W (278) 1000W (279) 1000W (280) 1000W (281) 1000W (282) 1000W (283) 1000W (284) 1000W (285) 1000W (286) 1000W (287) 1000W (288) 1000W (289) 1000W (290) 1000W (291) 1000W (292) 1000W (293) 1000W (294) 1000W (295) 1000W (296) 1000W (297) 1000W (298) 1000W (299) 1000W (300) 1000W (301) 1000W (302) 1000W (303) 1000W (304) 1000W (305) 1000W (306) 1000W (307) 1000W (308) 1000W (309) 1000W (310) 1000W (311) 1000W (312) 1000W (313) 1000W (314) 1000W (315) 1000W (316) 1000W (317) 1000W (318) 1000W (319) 1000W (320) 1000W (321) 1000W (322) 1000W (323) 1000W (324) 1000W (325) 1000W (326) 1000W (327) 1000W (328) 1000W (329) 1000W (330) 1000W (331) 1000W (332) 1000W (333) 1000W (334) 1000W (335) 1000W (336) 1000W (337) 1000W (338) 1000W (339) 1000W (340) 1000W (341) 1000W (342) 1000W (343) 1000W (344) 1000W (345) 1000W (346) 1000W (347) 1000W (348) 1000W (349) 1000W (350) 1000W (351) 1000W (352) 1000W (353) 1000W (354) 1000W (355) 1000W (356) 1000W (357) 1000W (358) 1000W (359) 1000W (360) 1000W (361) 1000W (362) 1000W (363) 1000W (364) 1000W (365) 1000W (366) 1000W (367) 1000W (368) 1000W (369) 1000W (370) 1000W (371) 1000W (372) 1000W (373) 1000W (374) 1000W (375) 1000W (376) 1000W (377) 1000W (378) 1000W (379) 1000W (380) 1000W (381) 1000W (382) 1000W (383) 1000W (384) 1000W (385) 1000W (386) 1000W (387) 1000W (388) 1000W (389) 1000W (390) 1000W (391) 1000W (392) 1000W (393) 1000W (394) 1000W (395) 1000W (396) 1000W (397) 1000W (398) 1000W (399) 1000W (400) 1000W (401) 1000W (402) 1000W (403) 1000W (404) 1000W (405) 1000W (406) 1000W (407) 1000W (408) 1000W (409) 1000W (410) 1000W (411) 1000W (412) 1000W (413) 1000W (414) 1000W (415) 1000W (416) 1000W (417) 1000W (418) 1000W (419) 1000W (420) 1000W (421) 1000W (422) 1000W (423) 1000W (424) 1000W (425) 1000W (426) 1000W (427) 1000W (428) 1000W (429) 1000W (430) 1000W (431) 1000W (432) 1000W (433) 1000W (434) 1000W (435) 1000W (436) 1000W (437) 1000W (438) 1000W (439) 1000W (440) 1000W (441) 1000W (442) 1000W (443) 1000W (444) 1000W (445) 1000W (446) 1000W (447) 1000W (448) 1000W (449) 1000W (450) 1000W (451) 1000W (452) 1000W (453) 1000W (454) 1000W (455) 1000W (456) 1000W (457) 1000W (458) 1000W (459) 1000W (460) 1000W (461) 1000W (462) 1000W (463) 1000W (464) 1000W (465) 1000W (466) 1000W (467) 1000W (468) 1000W (469) 1000W (470) 1000W (471) 1000W (472) 1000W (473) 1000W (474) 1000W (475) 1000W (476) 1000W (477) 1000W (478) 1000W (479) 1000W (480) 1000W (481) 1000W (482) 1000W (483) 1000W (484) 1000W (485) 1000W (486) 1000W (487) 1000W (488) 1000W (489) 1000W (490) 1000W (491) 1000W (492) 1000W (493) 1000W (494) 1000W (495) 1000W (496) 1000W (497) 1000W (498) 1000W (499) 1000W (500) 1000W (501) 1000W (502) 1000W (503) 1000W (504) 1000W (505) 1000W (506) 1000W (507) 1000W (508) 1000W (509) 1000W (510) 1000W (511) 1000W (512) 1000W (513) 1000W (514) 1000W (515) 1000W (516) 1000W (517) 1000W (518) 1000W (519) 1000W (520) 1000W (521) 1000W (522) 1000W (523) 1000W (524) 1000W (525) 1000W (526) 1000W (527) 1000W (528) 1000W (529) 1000W (530) 1000W (531) 1000W (532) 1000W (533) 1000W (534) 1000W (535) 1000W (536) 1000W (537) 1000W (538) 1000W (539) 1000W (540) 1000W (541) 1000W (542) 1000W (543) 1000W (544) 1000W (545) 1000W (546) 1000W (547) 1000W (548) 1000W (549) 1000W (550) 1000W (551) 1000W (552) 1000W (553) 1000W (554) 1000W (555) 1000W (556) 1000W (557) 1000W (558) 1000W (559) 1000W (560) 1000W (561) 1000W (562) 1000W (563) 1000W (564) 1000W (565) 1000W (566) 1000W (567) 1000W (568) 1000W (569) 1000W (570) 1000W (571) 1000W (572) 1000W (573) 1000W (574) 1000W (575) 1000W (576) 1000W (577) 1000W (578) 1000W (579) 1000W (580) 1000W (581) 1000W (582) 1000W (583) 1000W (584) 1000W (585) 1000W (586) 1000W (587) 1000W (588) 1000W (589) 1000W (590) 1000W (591) 1000W (592) 1000W (593) 1000W (594) 1000W (595) 1000W (596) 1000W (597) 1000W (598) 1000W (599) 1000W (600) 1000W (601) 1000W (602) 1000W (603) 1000W (604) 1000W (605) 1000W (606) 1000W (607) 1000W (608) 1000W (609) 1000W (610) 1000W (611) 1000W (612) 1000W (613) 1000W (614) 1000W (615) 1000W (616) 1000W (617) 1000W (618) 1000W (619) 1000W (620) 1000W (621) 1000W (622) 1000W (623) 1000W (624) 1000W (625) 1000W (626) 1000W (627) 1000W (628) 1000W (629) 1000W (630) 1000W (631) 1000W (632) 1000W (633) 1000W (634) 1000W (635) 1000W (636) 1000W (637) 1000W (638) 1000W (639) 1000W (640) 1000W (641) 1000W (642) 1000W (643) 1000W (644) 1000W (645) 1000W (646) 1000W (647) 1000W (648) 1000W (649) 1000W (650) 1000W (651) 1000W (652) 1000W (653) 1000W (654) 1000W (655) 1000W (656) 1000W (657

IQ Combiner 5/5C

DATASHEET



X-IQ-AMI-240-5
X-IQ-AMI-240-5C

IQ Combiner 5/5C

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, pre-wired solution for residential applications. IQ Combiner 5/5C uses wired control communication and is compatible with IQ System Controller 3/3G and IQ Battery SP.

The IQ Combiner 5/5C, along with IQ Series Microinverters, IQ System Controller 3/3G, and IQ Battery SP provides you with a complete grid-agnostic Enphase Energy System.



IQ Series Microinverters
The high-power, smart, grid-ready IQ Series Microinverters (IQ6, IQ2 and IQ8 Series) dramatically simplify the installation process



IQ System Controller 3/3G
Provides secure, bidirectional connection device (MID) functionality by automatically detecting grid failures and seamlessly transitioning the home energy system from grid power to backup power



IQ Load Controller
Helps prioritize essential appliances during a grid outage to optimize battery usage and protect battery life



IQ Battery SP
Fully integrated AC battery system. Includes six field-replaceable IQBD-BAT Microinverters



5-year limited warranty



© 2023 Enphase Energy. All rights reserved. Enphase, the e and CC logos, IQ, and certain other marks listed at <https://enphase.com/trademark-usage-guidelines> are trademarks of Enphase Energy, Inc. in the US and other countries. Data subject to change.

ICO-5-SC-DSH-00007-2.0-EN-US-2023-09-27

MODEL NUMBER

IQ Combiner 5 (X-IQ-AMI-240-5)

IQ Combiner 5C (X-IQ-AMI-240-5C)

WHAT'S IN THE BOX

IQ Gateway printed circuit board

Bussbar

IQ Gateway breaker

Production CT

Consumption CT

IQ Battery CT

CTRL board

Enphase Mobile Connect (only with IQ Combiner 5C)

Accessories kit

ACCESSORIES AND REPLACEMENT PARTS NOT INCLUDED. ORDER SEPARATELY

CELLMODEM-MI-06-SP-03

CELLMODEM-MI-06-AT-03

Circuit breakers (off-the-shelf)

Circuit breakers (provided by Enphase)

XA-SOLARSHIELD-ES

XA-EHV2-PCBA-5

X-IQ-MA-HD-125A

ELECTRICAL SPECIFICATIONS

Rating

80 A

System voltage

120/240 VAC, 60 Hz

Bussbar rating

10 kAIC

Fault current rating

64 A

Maximum continuous current rating (input from PV/storage)

Branch circuits (load and/or storage)

Maximum total branch circuit breaker rating (input)

IQ Gateway breaker

Production metering CT

Consumption metering CT (CT-200-CLAMP)

IQ Battery metering CT

IQ Combiner 5 with IQ Gateway printed circuit board for integrated revenue grade PV production metering (ANSI C12.20 ±0.5%), consumption monitoring (±2.5%) and IQ Battery monitoring (±2.5%). Includes a silver solar shield to deflect heat

IQ Combiner 5C with IQ Gateway printed circuit board for integrated revenue grade PV production metering (ANSI C12.20 ±0.5%), consumption monitoring (±2.5%) and IQ Battery monitoring (±2.5%). Includes Enphase Mobile Connect cellular modem (CELLMODEM-MI-06-SP-03). Includes a silver solar shield to deflect heat

IQ Gateway is the platform for total energy management for comprehensive, remote maintenance and management of the distributed IQ System

125A busbar with support for 1 x IQ Gateway breaker and 4 x 20A breaker for installing IQ Series Microinverters and IQ Battery SP

Circuit breaker, 2-pole, 10 A/15 A

Pre-wired revenue-grade solid core CT, accurate up to 0.5%

Two consumption metering clamp CTs, shipped with the box, accurate up to 2.5%

One battery metering clamp CT, shipped with the box, accurate up to 2.5%

Control board for wired communication with IQ System Controller 3/3G and the IQ Battery SP

4G-based LTE-M cellular modem (CELLMODEM-MI-06-SP-03) with a 5-year T-Mobile data plan

Splice control headers for CTRL board

4G-based LTE-M cellular modem with a 5-year T-Mobile data plan

Supports Eaton BR210, BR215, BR220, BR230, BR240, BR250, and BR260 circuit breakers

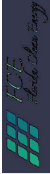
Supports Eaton BR220E, BR230E, and BR240E circuit breakers compatible with hold-down kit

BRK 10A, 2 240V, BRK 15A, 2 240V, BRK 20A, 2P 240V, BRK 15A, 2P 240V, B, and BRK 20A, 2P-240V-S (More details in "Accessories" section)

Replacement solar shield for IQ Combiner 5/5C

IQ Gateway replacement printed circuit board (PCB) for Combiner 5/5C

Hold-down kit compatible with Eaton BR-B series circuit breakers (with screws)



FLORIDA CLEAN ENERGY
INCORPORATED
442 W KENNEDY BLVD SUITE 310
TAMPA, FL 33606

REVISIONS

DESCRIPTION	DATE	REV

PROJECT NAME

DATE: 12/27/2024

EHOUD BUTON 1323
1321 SOUTHEAST 3RD STREET,
OCALA, FL 34471

SHEET NAME
COMBINER
DATA SHEET-1

SHEET SIZE
ANSI B
11" X 17"

SHEET NUMBER
DS-03

Signature with Seal

ICO-5-SC-DSH-00007-2.0-EN-US-2023-09-27

* Aging-and-play material-grade cell modem for systems up to 10 microinverters. (Available in the US, Canada, Mexico, Puerto Rico, and the US Virgin Islands, where there is adequate cellular service in the installation area.)

MECHANICAL DATA	
Dimensions (WHKO)	37.5 mm x 49.5 mm x 18.8 mm (1.475" x 1.95" x 0.63"). Height is 21.06" (53.5 cm) with mounting brackets
Weight	7.5 kg (16.5 lbs)
Ambient temperature range	-40°C to 46°C (-40°F to 115°F)
Cooling	Natural convection, plus heat shield
Enclosure environmental rating	Outdoor, NRTL-certified, NEMA type-3R, polycarbonate overstructure
Wire sizes	<ul style="list-style-type: none">20 A to 50 A breaker inputs: 14 to 4 AWG copper conductors60 A breaker branch input: 4 to 1/0 AWG copper conductors100 A breaker branch input: 4 to 1/0 AWG copper conductorsNeutral and ground: 14 to 1/0 copper conductorsAlways follow local code requirements for conductor sizing
Communication (in-premise connectivity)	Built-in, CTDL board for wired communication with IQ Battery 5P and IQ System Controller 3/3G Integrated Power Line Communication for IQ Series Microinverters
Altitude	Up to 2,600 meters (8,530 feet)
COMMUNICATION INTERFACES	
Integrated Wi-Fi	802.11b/g/n (dual band 2.4 GHz/5 GHz), for connecting the Enphase cloud via the internet
Wi-Fi range (recommended)	10 m
Bluetooth	BLE4.2, 10 m range to configure Wi-Fi SSID
Ethernet	Optional, 802.3, Cat5E (or Cat 6) UTP Ethernet cable (not included), for connecting to the Enphase Cloud via the internet
Mobile Connect	CELLMODEM-MH-06-SP-05 or CELLMODEM-MH-06-AT-05 (included with IQ Combiner 50)
Digital I/O	Digital input/output for grid operator control
USB 2.0	For Mobile Connect
Access point (AP) mode	For connection between the IQ Gateway and a mobile device running the Enphase Installer App
Metering ports	Up to two Consumption CTs, one IQ Battery CT, and one Production CT
Power line communication	90-110 kHz
Web API	Refer to https://developer-v4.enphase.com
Local API	Refer to guide for local API
COMPLIANCE	
IQ Combiner	UL 1741, CAN/CSA C22.2 No. 107.1, Title 47 CFR, Part 15, Class B, ICES 003
IQ Gateway	UL 60950-1/IEC60950-1, IEC60950-2, IEC60950-3, IEC60950-4, IEC60950-5, IEC60950-6, IEC60950-7, IEC60950-8, IEC60950-9, IEC60950-10, IEC60950-11, IEC60950-12, IEC60950-13, IEC60950-14, IEC60950-15, IEC60950-16, IEC60950-17, IEC60950-18, IEC60950-19, IEC60950-20, IEC60950-21, IEC60950-22, IEC60950-23, IEC60950-24, IEC60950-25, IEC60950-26, IEC60950-27, IEC60950-28, IEC60950-29, IEC60950-30, IEC60950-31, IEC60950-32, IEC60950-33, IEC60950-34, IEC60950-35, IEC60950-36, IEC60950-37, IEC60950-38, IEC60950-39, IEC60950-40, IEC60950-41, IEC60950-42, IEC60950-43, IEC60950-44, IEC60950-45, IEC60950-46, IEC60950-47, IEC60950-48, IEC60950-49, IEC60950-50, IEC60950-51, IEC60950-52, IEC60950-53, IEC60950-54, IEC60950-55, IEC60950-56, IEC60950-57, IEC60950-58, IEC60950-59, IEC60950-60, IEC60950-61, IEC60950-62, IEC60950-63, IEC60950-64, IEC60950-65, IEC60950-66, IEC60950-67, IEC60950-68, IEC60950-69, IEC60950-70, IEC60950-71, IEC60950-72, IEC60950-73, IEC60950-74, IEC60950-75, IEC60950-76, IEC60950-77, IEC60950-78, IEC60950-79, IEC60950-80, IEC60950-81, IEC60950-82, IEC60950-83, IEC60950-84, IEC60950-85, IEC60950-86, IEC60950-87, IEC60950-88, IEC60950-89, IEC60950-90, IEC60950-91, IEC60950-92, IEC60950-93, IEC60950-94, IEC60950-95, IEC60950-96, IEC60950-97, IEC60950-98, IEC60950-99, IEC60950-100, IEC60950-101, IEC60950-102, IEC60950-103, IEC60950-104, IEC60950-105, IEC60950-106, IEC60950-107, IEC60950-108, IEC60950-109, IEC60950-110, IEC60950-111, IEC60950-112, IEC60950-113, IEC60950-114, IEC60950-115, IEC60950-116, IEC60950-117, IEC60950-118, IEC60950-119, IEC60950-120, IEC60950-121, IEC60950-122, IEC60950-123, IEC60950-124, IEC60950-125, IEC60950-126, IEC60950-127, IEC60950-128, IEC60950-129, IEC60950-130, IEC60950-131, IEC60950-132, IEC60950-133, IEC60950-134, IEC60950-135, IEC60950-136, IEC60950-137, IEC60950-138, IEC60950-139, IEC60950-140, IEC60950-141, IEC60950-142, IEC60950-143, IEC60950-144, IEC60950-145, IEC60950-146, IEC60950-147, IEC60950-148, IEC60950-149, IEC60950-150, IEC60950-151, IEC60950-152, IEC60950-153, IEC60950-154, IEC60950-155, IEC60950-156, IEC60950-157, IEC60950-158, IEC60950-159, IEC60950-160, IEC60950-161, IEC60950-162, IEC60950-163, IEC60950-164, IEC60950-165, IEC60950-166, IEC60950-167, IEC60950-168, IEC60950-169, IEC60950-170, IEC60950-171, IEC60950-172, IEC60950-173, IEC60950-174, IEC60950-175, IEC60950-176, IEC60950-177, IEC60950-178, IEC60950-179, IEC60950-180, IEC60950-181, IEC60950-182, IEC60950-183, IEC60950-184, IEC60950-185, IEC60950-186, IEC60950-187, IEC60950-188, IEC60950-189, IEC60950-190, IEC60950-191, IEC60950-192, IEC60950-193, IEC60950-194, IEC60950-195, IEC60950-196, IEC60950-197, IEC60950-198, IEC60950-199, IEC60950-200, IEC60950-201, IEC60950-202, IEC60950-203, IEC60950-204, IEC60950-205, IEC60950-206, IEC60950-207, IEC60950-208, IEC60950-209, IEC60950-210, IEC60950-211, IEC60950-212, IEC60950-213, IEC60950-214, IEC60950-215, IEC60950-216, IEC60950-217, IEC60950-218, IEC60950-219, IEC60950-220, IEC60950-221, IEC60950-222, IEC60950-223, IEC60950-224, IEC60950-225, IEC60950-226, IEC60950-227, IEC60950-228, IEC60950-229, IEC60950-230, IEC60950-231, IEC60950-232, IEC60950-233, IEC60950-234, IEC60950-235, IEC60950-236, IEC60950-237, IEC60950-238, IEC60950-239, IEC60950-240, IEC60950-241, IEC60950-242, IEC60950-243, IEC60950-244, IEC60950-245, IEC60950-246, IEC60950-247, IEC60950-248, IEC60950-249, IEC60950-250, IEC60950-251, IEC60950-252, IEC60950-253, IEC60950-254, IEC60950-255, IEC60950-256, IEC60950-257, IEC60950-258, IEC60950-259, IEC60950-260, IEC60950-261, IEC60950-262, IEC60950-263, IEC60950-264, IEC60950-265, IEC60950-266, IEC60950-267, IEC60950-268, IEC60950-269, IEC60950-270, IEC60950-271, IEC60950-272, IEC60950-273, IEC60950-274, IEC60950-275, IEC60950-276, IEC60950-277, IEC60950-278, IEC60950-279, IEC60950-280, IEC60950-281, IEC60950-282, IEC60950-283, IEC60950-284, IEC60950-285, IEC60950-286, IEC60950-287, IEC60950-288, IEC60950-289, IEC60950-290, IEC60950-291, IEC60950-292, IEC60950-293, IEC60950-294, IEC60950-295, IEC60950-296, IEC60950-297, IEC60950-298, IEC60950-299, IEC60950-300, IEC60950-301, IEC60950-302, IEC60950-303, IEC60950-304, IEC60950-305, IEC60950-306, IEC60950-307, IEC60950-308, IEC60950-309, IEC60950-310, IEC60950-311, IEC60950-312, IEC60950-313, IEC60950-314, IEC60950-315, IEC60950-316, IEC60950-317, IEC60950-318, IEC60950-319, IEC60950-320, IEC60950-321, IEC60950-322, IEC60950-323, IEC60950-324, IEC60950-325, IEC60950-326, IEC60950-327, IEC60950-328, IEC60950-329, IEC60950-330, IEC60950-331, IEC60950-332, IEC60950-333, IEC60950-334, IEC60950-335, IEC60950-336, IEC60950-337, IEC60950-338, IEC60950-339, IEC60950-340, IEC60950-341, IEC60950-342, IEC60950-343, IEC60950-344, IEC60950-345, IEC60950-346, IEC60950-347, IEC60950-348, IEC60950-349, IEC60950-350, IEC60950-351, IEC60950-352, IEC60950-353, IEC60950-354, IEC60950-355, IEC60950-356, IEC60950-357, IEC60950-358, IEC60950-359, IEC60950-360, IEC60950-361, IEC60950-362, IEC60950-363, IEC60950-364, IEC60950-365, IEC60950-366, IEC60950-367, IEC60950-368, IEC60950-369, IEC60950-370, IEC60950-371, IEC60950-372, IEC60950-373, IEC60950-374, IEC60950-375, IEC60950-376, IEC60950-377, IEC60950-378, IEC60950-379, IEC60950-380, IEC60950-381, IEC60950-382, IEC60950-383, IEC60950-384, IEC60950-385, IEC60950-386, IEC60950-387, IEC60950-388, IEC60950-389, IEC60950-390, IEC60950-391, IEC60950-392, IEC60950-393, IEC60950-394, IEC60950-395, IEC60950-396, IEC60950-397, IEC60950-398, IEC60950-399, IEC60950-400, IEC60950-401, IEC60950-402, IEC60950-403, IEC60950-404, IEC60950-405, IEC60950-406, IEC60950-407, IEC60950-408, IEC60950-409, IEC60950-410, IEC60950-411, IEC60950-412, IEC60950-413, IEC60950-414, IEC60950-415, IEC60950-416, IEC60950-417, IEC60950-418, IEC60950-419, IEC60950-420, IEC60950-421, IEC60950-422, IEC60950-423, IEC60950-424, IEC60950-425, IEC60950-426, IEC60950-427, IEC60950-428, IEC60950-429, IEC60950-430, IEC60950-431, IEC60950-432, IEC60950-433, IEC60950-434, IEC60950-435, IEC60950-436, IEC60950-437, IEC60950-438, IEC60950-439, IEC60950-440, IEC60950-441, IEC60950-442, IEC60950-443, IEC60950-444, IEC60950-445, IEC60950-446, IEC60950-447, IEC60950-448, IEC60950-449, IEC60950-450, IEC60950-451, IEC60950-452, IEC60950-453, IEC60950-454, IEC60950-455, IEC60950-456, IEC60950-457, IEC60950-458, IEC60950-459, IEC60950-460, IEC60950-461, IEC60950-462, IEC60950-463, IEC60950-464, IEC60950-465, IEC60950-466, IEC60950-467, IEC60950-468, IEC60950-469, IEC60950-470, IEC60950-471, IEC60950-472, IEC60950-473, IEC60950-474, IEC60950-475, IEC60950-476, IEC60950-477, IEC60950-478, IEC60950-479, IEC60950-480, IEC60950-481, IEC60950-482, IEC60950-483, IEC60950-484, IEC60950-485, IEC60950-486, IEC60950-487, IEC60950-488, IEC60950-489, IEC60950-490, IEC60950-491, IEC60950-492, IEC60950-493, IEC60950-494, IEC60950-495, IEC60950-496, IEC60950-497, IEC60950-498, IEC60950-499, IEC60950-500, IEC60950-501, IEC60950-502, IEC60950-503, IEC60950-504, IEC60950-505, IEC60950-506, IEC60950-507, IEC60950-508, IEC60950-509, IEC60950-510, IEC60950-511, IEC60950-512, IEC60950-513, IEC60950-514, IEC60950-515, IEC60950-516, IEC60950-517, IEC60950-518, IEC60950-519, IEC60950-520, IEC60950-521, IEC60950-522, IEC60950-523, IEC60950-524, IEC60950-525, IEC60950-526, IEC60950-527, IEC60950-528, IEC60950-529, IEC60950-530, IEC60950-531, IEC60950-532, IEC60950-533, IEC60950-534, IEC60950-535, IEC60950-536, IEC60950-537, IEC60950-538, IEC60950-539, IEC60950-540, IEC60950-541, IEC60950-542, IEC60950-543, IEC60950-544, IEC60950-545, IEC60950-546, IEC60950-547, IEC60950-548, IEC60950-549, IEC60950-550, IEC60950-551, IEC60950-552, IEC60950-553, IEC60950-554, IEC60950-555, IEC60950-556, IEC60950-557, IEC60950-558, IEC60950-559, IEC60950-560, IEC60950-561, IEC60950-562, IEC60950-563, IEC60950-564, IEC60950-565, IEC60950-566, IEC60950-567, IEC60950-568, IEC60950-569, IEC60950-570, IEC60950-571, IEC60950-572, IEC60950-573, IEC60950-574, IEC60950-575, IEC60950-576, IEC60950-577, IEC60950-578, IEC60950-579, IEC60950-580, IEC60950-581, IEC60950-582, IEC60950-583, IEC60950-584, IEC60950-585, IEC60950-586, IEC60950-587, IEC60950-588, IEC60950-589, IEC60950-590, IEC60950-591, IEC60950-592, IEC60950-593, IEC60950-594, IEC60950-595, IEC60950-596, IEC60950-597, IEC60950-598, IEC60950-599, IEC60950-600, IEC60950-601, IEC60950-602, IEC60950-603, IEC60950-604, IEC60950-605, IEC60950-606, IEC60950-607, IEC60950-608, IEC60950-609, IEC60950-610, IEC60950-611, IEC60950-612, IEC60950-613, IEC60950-614, IEC60950-615, IEC60950-616, IEC60950-617, IEC60950-618, IEC60950-619, IEC60950-620, IEC60950-621, IEC60950-622, IEC60950-623, IEC60950-624, IEC60950-625, IEC60950-626, IEC60950-627, IEC60950-628, IEC60950-629, IEC60950-630, IEC60950-631, IEC60950-632, IEC60950-633, IEC60950-634, IEC60950-635, IEC60950-636, IEC60950-637, IEC60950-638, IEC60950-639, IEC60950-640, IEC60950-641, IEC60950-642, IEC60950-643, IEC60950-644, IEC60950-645, IEC60950-646, IEC60950-647, IEC60950-648, IEC60950-649, IEC60950-650, IEC60950-651, IEC60950-652, IEC60950-653, IEC60950-654, IEC60950-655, IEC60950-656, IEC60950-657, IEC60950-658, IEC60950-659, IEC60950-660, IEC60950-661, IEC60950-662, IEC60950-663, IEC60950-664, IEC60950-665, IEC60950-666, IEC60950-667, IEC60950-668, IEC60950-669, IEC60950-670, IEC60950-671, IEC60950-672, IEC60950-673, IEC60950-674, IEC60950-675, IEC60950-676, IEC60950-677, IEC60950-678, IEC60950-679, IEC60950-680, IEC60950-681, IEC60950-682, IEC60950-683, IEC60950-684, IEC60950-685, IEC60950-686, IEC60950-687, IEC60950-688, IEC60950-689, IEC60950-690, IEC60950-691, IEC60950-692, IEC60950-693, IEC60950-694, IEC60950-695, IEC60950-696, IEC60950-697, IEC60950-698, IEC60950-699, IEC60950-700, IEC60950-701, IEC60950-702, IEC60950-703, IEC60950-704, IEC60950-705, IEC60950-706, IEC60950-707, IEC60950-708, IEC60950-709, IEC60950-710, IEC60950-711, IEC60950-712, IEC60950-713, IEC60950-714, IEC60950-715, IEC60950-716, IEC60950-717, IEC60950-718, IEC60950-719, IEC60950-720, IEC60950-721, IEC60950-722, IEC60950-723, IEC60950-724, IEC60950-725, IEC60950-726, IEC60950-727, IEC60950-728, IEC60950-729, IEC60950-730, IEC60950-731, IEC60950-732, IEC60950-733, IEC60950-734, IEC60950-735, IEC60950-736, IEC60950-737, IEC60950-738, IEC60950-739, IEC60950-740, IEC60950-741, IEC60950-742, IEC60950-743, IEC60950-744, IEC60950-745, IEC60950-746, IEC60950-747, IEC60950-748, IEC60950-749, IEC60950-750, IEC60950-751, IEC60950-752, IEC60950-753, IEC60950-754, IEC60950-755, IEC60950-756, IEC60950-757, IEC60950-758, IEC60950-759, IEC60950-760, IEC60950-761, IEC60950-762, IEC60950-763, IEC60950-764, IEC60950-765, IEC60950-766, IEC60950-767, IEC60950-768, IEC60950-769, IEC60950-770, IEC60950-771, IEC60950-772, IEC60950-773, IEC60950-774, IEC60950-775, IEC60950-776, IEC60950-777, IEC60950-778, IEC60950-779, IEC60950-780, IEC60950-781, IEC60950-782, IEC60950-783, IEC60950-784, IEC60950-785, IEC60950-786, IEC60950-787, IEC60950-788, IEC60950-789, IEC60950-790, IEC60950-791, IEC60950-792, IEC60950-793, IEC60950-794, IEC60950-795, IEC60950-796, IEC60950-797, IEC60950-798, IEC60950-799, IEC60950-800, IEC60950-801, IEC60950-802, IEC60950-803, IEC60950-804, IEC60950-805, IEC60950-806, IEC60950-807, IEC60950-808, IEC60950-809, IEC60950-810, IEC60950-811, IEC60950-812, IEC60950-813, IEC60950-814, IEC60950-815, IEC60950-816, IEC60950-817, IEC60950-818, IEC60950-819, IEC60950-820, IEC60950-821, IEC60950-822, IEC60950-823, IEC60950-824, IEC60950-825, IEC60950-826, IEC60950-827, IEC60950-828, IEC60950-829, IEC60950-830, IEC60950-831, IEC60950-832, IEC60950-833, IEC60950-834, IEC60950-835, IEC60950-836, IEC60950-837, IEC60950-838, IEC60950-839, IEC60950-840, IEC60950-841, IEC60950-842, IEC60950-843, IEC60950-844, IEC60950-845, IEC60950-846, IEC60950-847, IEC60950-848, IEC60950-849, IEC60950-850, IEC60950-851, IEC60950-852, IEC60950-853, IEC60950-854, IEC60950-855, IEC60950-856, IEC60950-857, IEC60950-858, IEC60950-859, IEC60950-860, IEC60950-861, IEC60950-862, IEC60950-863, IEC60950-864, IEC60950-865, IEC60950-866, IEC60950-867, IEC60950-868, IEC60950-869, IEC60950-870, IEC60950-871, IEC60950-872, IEC60950-873, IEC60950-874, IEC60950-875, IEC60950-876, IEC60950-877, IEC60950-878, IEC60950-879, IEC60950-880, IEC60950-881, IEC60950-882, IEC60950-883, IEC60950-884, IEC60950-885, IEC60950-886, IEC60950-887, IEC60950-888, IEC60950-889, IEC60950-890, IEC60950-891, IEC60950-892, IEC60950-893, IEC60950-894, IEC60950-895, IEC60950-896, IEC60950-897, IEC60950-898, IEC60950-899, IEC60950-900, IEC60950-901, IEC60950-902, IEC60950-903, IEC60950-904, IEC60950-905, IEC60950-906, IEC60950-907, IEC60950-908, IEC60950-909, IEC60950-910, IEC60950-911, IEC60950-912, IEC60950-913, IEC60950-914, IEC60950-915, IEC60950-916, IEC60950-917, IEC60950-918, IEC60950-919, IEC60950-920, IEC60950-921, IEC60950-922, IEC60950-923, IEC60950-924, IEC60950-925, IEC60950-926, IEC60950-927, IEC60950-928, IEC60950-929, IEC60950-930, IEC60950-931, IEC60950-932, IEC60950-933, IEC60950-934, IEC60950-935, IEC60950-936, IEC60950-937, IEC60950-938, IEC60950-939, IEC60950-940, IEC60950-941, IEC60950-942, IEC60950-943, IEC60950-944, IEC60950-945, IEC60950-946, I

HYUNDAI SOLAR MODULE



Dual Black Max

HIS-S385YH(BK) HIS-S390YH(BK) HIS-S395YH(BK)
HIS-S400YH(BK) HIS-S405YH(BK) HIS-S410YH(BK)



Bifacial Cells

More Power
Generation
In Low Light



UL 1500V
IEC 1500V
Saves EGS Costs



All Black Module
For Sleek Design
(Black Meshed
1-Back sheet)



Increased total power output through capturing light from both the front and back of Bifacial solar modules. Back side power gain up to 25% of the front output depending on PV system design.



Improved current flow with half-cut technology and 9 thin wiring technology allows high module efficiency of up to 20.5%. It also reduces power generation loss due to micro-cracks.



Both LID(Light Induced Degradation) and PID(Potential Induced Degradation) are significantly reduced to ensure higher actual yield during lifetime.



Tempered glass and reinforced frame design withstand rigorous weather conditions such as heavy snow(5,400Pa) and strong wind(4,000Pa).



Hyundai's R&D center is an accredited test laboratory of both UL and VDE.



Global brand with powerful financial strength provide reliable 25-year warranty.

Hyundai's Warranty Provisions

- 25-Year Product Warranty
- Materials and workmanship
- 25-Year Performance Warranty
 - Initial year - 90.0%
 - 1st year after second year - 85.0%
 - With 0.54%/year degradation
 - 85.0% is guaranteed up to 25 years

About Hyundai Energy Solutions

Established in 1972, Hyundai Heavy Industries Group is one of the most trusted names in the heavy industries sector and is a Fortune 500 company. As a global leader and innovator, Hyundai Heavy Industries is committed to building a future growth engine by developing and investing heavily in the field of renewable energy.

As a core energy business entity of HH, Hyundai Energy Solutions has strong pride in providing high-quality PV products to more than 3,000 customers worldwide.

Certification



UL E7792 certified by UL, Type 1 (for Fire Code A)

Printed Date : 05/2024 (Rev.1)

www.hyundai-es.co.kr



Electrical Characteristics

		Mono-Crystalline Type(HIS-S-YH(BK))					
		385	390	395	400	405	410
Nominal Output (Pmp)	W	385	390	395	400	405	410
Open Circuit Voltage (Voc)	V	44.5	44.8	45.0	45.3	45.6	45.9
Short Circuit Current (Isc)	A	11.04	11.11	11.18	11.25	11.33	11.40
Voltage at Pmax (Vmp)	V	37.1	37.3	37.5	37.7	37.9	38.1
Current at Pmax (Imp)	A	10.40	10.47	10.54	10.61	10.69	10.76
Module Efficiency %	%	19.3	19.5	19.8	20.0	20.3	20.5
Cell Type	Mono crystalline, 60cells						
Maximum System Voltage	V	1,500					
Temperature coefficient of Pmax	%/K	-0.347					
Temperature coefficient of Voc	%/K	-0.268					
Temperature coefficient of Isc	%/K	+0.032					

*At 25°C (Maximum Temperature) Pmp: W, Voc: V, Isc: A, Vmp: V, Imp: A, Efficiency: %

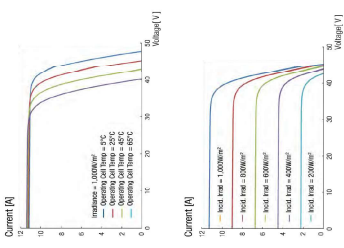
Mechanical Characteristics

Dimensions	1,038 mm (W) x 1,324 mm (L) x 35 mm(H)
Weight	Approx. 21.1 kg
Solar Cells	132 half cut bifacial cells (2 parallel x 66 half cells in series)
Output Cables	Cable : 1200mm / 4mm ² Connector : MC4 genuine connector
Junction Box	IP68, weatherproof, IEC certified (UL listed)
Bypass Diodes	3 bypass diodes to prevent power decrease by partial shade
Construction	Front : 3.2mm High Transmission, AR Coated Tempered Glass Encapsulant : EVA Back Sheet : Black Meshed Transparent Backsheet
Frame	Anodized aluminum alloy type 6063

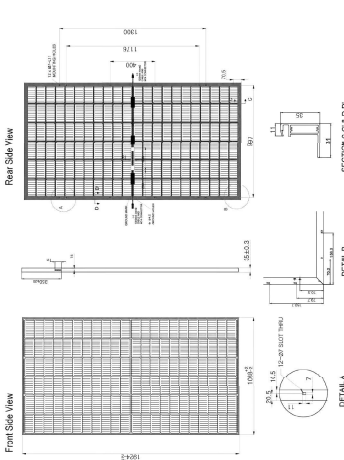
Installation Safety Guide

- Only qualified personnel should install or perform maintenance.
- Be aware of dangerous high DC voltage.
- Do not damage or scratch the rear surface of the module.
- Do not handle or install modules when they are wet.

I-V Curves



Module Diagram



1321 SOUTHEAST 3RD STREET,
OCALA, FL 34471

EHOLD BUTON 1323

SHEET NAME
MODULE
DATA SHEET

SHEET SIZE
ANSI B
11" X 17"

SHEET NUMBER
DS-01

Signature with Seal



442 W KENNEDY BLVD SUITE 310
TAMPA, FL 33606

REVISIONS	
DESCRIPTION	DATE

DATE: 12/27/2024

PROJECT NAME

Certificate Of Completion

Envelope Id: AE65B404-477B-401D-87F8-21F9B5F3AD8C

Status: Completed

Subject: SIGNATURE: Net-Metering Agreement - Ehoud Buton - 1323 SE 3rd St. (ELE/250512)

Source Envelope:

Document Pages: 27

Signatures: 5

Envelope Originator:

Certificate Pages: 5

Initials: 0

April Adolf

AutoNav: Enabled

110 SE Watula Avenue

Envelopeld Stamping: Enabled

City Hall, Third Floor

Time Zone: (UTC-05:00) Eastern Time (US & Canada)

Ocala, FL 34471

aadolf@ocalafl.gov

IP Address: 216.255.240.104

Record Tracking

Status: Original

Holder: April Adolf

Location: DocuSign

3/21/2025 7:55:29 PM

aadolf@ocalafl.gov

Security Appliance Status: Connected

Pool: StateLocal

Storage Appliance Status: Connected

Pool: City of Ocala - Procurement & Contracting

Location: Docusign

Signer Events

William E. Sexton

wsexton@ocalafl.org

City Attorney

City of Ocala

Security Level: Email, Account Authentication
(None)

Signature

DocuSigned by:

William E. Sexton

B07DCFC4E88E429...

Timestamp

Sent: 3/21/2025 8:05:12 PM

Viewed: 3/24/2025 10:52:53 AM

Signed: 3/24/2025 11:24:15 AM

Signature Adoption: Pre-selected Style

Using IP Address: 216.255.240.104

Electronic Record and Signature Disclosure:

Not Offered via Docusign

Janice Mitchell

jmitchell@Ocalafl.org

CFO

City of Ocala

Security Level: Email, Account Authentication
(None)

Signed by:

Janice Mitchell

55198B43858A4E1...

Sent: 3/24/2025 11:24:17 AM

Viewed: 3/25/2025 2:45:29 PM

Signed: 3/25/2025 2:46:12 PM

Signature Adoption: Pre-selected Style

Using IP Address: 38.34.227.194

Electronic Record and Signature Disclosure:

Accepted: 3/25/2025 2:45:29 PM

ID: cfa9a257-6df0-4bc1-820a-9a9f7da5e3d7

Chris Gowder

chris.gowder@fmpa.com

Chief Sys Ops & Tech Officer

Security Level: Email, Account Authentication
(None)

DocuSigned by:

Chris Gowder

087F58EBB34B474...

Sent: 3/25/2025 2:46:13 PM

Viewed: 3/27/2025 8:04:17 AM

Signed: 3/27/2025 8:04:26 AM

Signature Adoption: Uploaded Signature Image

Using IP Address: 166.199.100.23

Signed using mobile

Electronic Record and Signature Disclosure:

Accepted: 3/27/2025 8:04:17 AM

ID: 3e89547f-dbd4-4e10-9f4b-847bdec479b0

In Person Signer Events

Signature

Timestamp

Editor Delivery Events

Status

Timestamp

Agent Delivery Events

Status

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	3/21/2025 8:05:13 PM
Certified Delivered	Security Checked	3/27/2025 8:04:17 AM
Signing Complete	Security Checked	3/27/2025 8:04:26 AM
Completed	Security Checked	3/27/2025 8:04:26 AM
Payment Events	Status	Timestamps
Electronic Record and Signature Disclosure		

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

From time to time, City of Ocala - Procurement & Contracting (we, us or Company) may be required by law to provide to you certain written notices or disclosures. Described below are the terms and conditions for providing to you such notices and disclosures electronically through the DocuSign system. Please read the information below carefully and thoroughly, and if you can access this information electronically to your satisfaction and agree to this Electronic Record and Signature Disclosure (ERSD), please confirm your agreement by selecting the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

Getting paper copies

At any time, you may request from us a paper copy of any record provided or made available electronically to you by us. You will have the ability to download and print documents we send to you through the DocuSign system during and immediately after the signing session and, if you elect to create a DocuSign account, you may access the documents for a limited period of time (usually 30 days) after such documents are first sent to you. After such time, if you wish for us to send you paper copies of any such documents from our office to you, you will be charged a \$0.00 per-page fee. You may request delivery of such paper copies from us by following the procedure described below.

Withdrawing your consent

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.