



Interoffice Memorandum

October 6, 2023

TO: Mayor Jerry L. Demings
-AND-
County Commissioners

FROM: Ed Torres, M.S., P.E., LEED AP, Director
Utilities Department

A handwritten signature in black ink, appearing to be "Ed Torres", written over the "FROM:" line.

SUBJECT: **October 24, 2023 – Consent Item**
Interconnection Agreement between Duke Energy and Orange County for
the Northwest Water Reclamation Facility Solar Energy System
Contact Person: Lindy A. Wolfe, P. E., LEED AP, Manager
Utilities Engineering Division
407-254-9918

Duke Energy requires execution of an Interconnection Agreement to connect Orange County Utilities' (OCU) solar arrays to the Duke Energy electric grid as part of OCU's Capital Improvements Program Northwest Water Reclamation Facility (NWRf) Solar Energy System project. A similar agreement was initially approved by the Board on September 1, 2020 as a pre-application detailing the proposed infrastructure to initiate Duke's evaluation of the connection. The proposed system was approved by Duke for interconnection, but the 2020 agreement was not executed by Duke. This revised agreement details the As-Built system and is intended to replace the 2020 agreement approved by the Board, and will be executed by Duke after final inspection of the system.

The NWRf Solar Energy System project includes the installation of photovoltaic panels capable of producing up to 2 megawatts (MW_{AC}) of power, which is expected to offset approximately 60% of the facility's annual power consumption.

The County Attorney's Office has reviewed the agreement and finds it acceptable as to form. Utilities Department staff has reviewed the agreement and recommends approval.

Action Requested: **Approval and execution of Interconnection of Customer-Owned Renewable Generation Systems to Duke Energy Florida, Inc. Electric Grid Application and Compliance Form for Tier 2 and Tier 3 (greater than 10 kw) by and between Orange County, Florida and Duke Energy Florida, Inc. for the Northwest Water Reclamation Facility Solar Energy System and authorization for the County Administrator to sign application documents incidental to this project on behalf of Orange County, Florida.**

District 2.



APPROVED
 BY ORANGE COUNTY BOARD
 OF COUNTY COMMISSIONERS

SECTION NO. VII
 THIRD REVISED SHEET NO. 7.337
 CANCELS SECOND REVISED SHEET NO. 7.337

OCT 24 2023

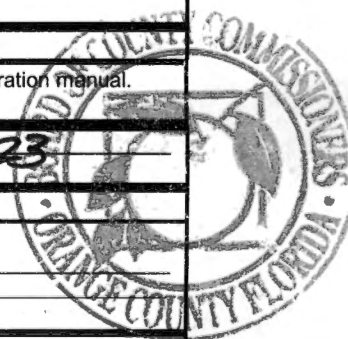
INTERCONNECTION OF CUSTOMER-OWNED RENEWABLE GENERATION SYSTEMS
 TO DUKE ENERGY FLORIDA, INC. ELECTRIC GRID
 APPLICATION AND COMPLIANCE FORM
 FOR TIER 2 and 3 SYSTEMS (greater than 10 KW)

Parts A & B to be Completed upon Initial Application

A. Applicant Information	
Name: <u>Orange County, Florida</u>	DEF Account No.: <u>7189224296</u>
Mailing Address: <u>701 W McCormick Road</u>	
City: <u>Apopka</u>	Zip Code: <u>32703</u>
Street Address (if different): _____	
Daytime Phone: <u>407-254-9927</u>	Fax: _____ Email: <u>Megan.Nelson@ocfl.net</u>
B. System Information	
System 1 Information (please check): Wind _____ Solar <input checked="" type="checkbox"/> Other (please state type) _____	
System Name/Model: <u>OCU NWRF Solar Plant</u>	System Capacity: <u>2,337,840</u> watts (DC)
List Manufacturer/Model for: (Module QTY: 4,080) _____ (Inverter QTY: 16) _____	
Generator/modules: <u>Trina/TSMDEC19C.20</u>	Inverter: <u>SMA/Sunny HighPower Peak3 125-US</u> Batteries <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Total Battery Capacity kW DC: <u>N/A</u>	Manufacturer names and Model #: <u>N/A</u>
System Location: <u>701 W McCormick Road, Apopka, FL 32703</u>	Inverter Location: <u>Same as System Location</u>
Permission to monitor? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
System 2 Information (please check): Wind _____ Solar _____ Other (please state type) _____	
System Name/Model: _____	System Capacity: _____ watts (DC)
List Manufacturer/Model for: _____	
Generator/modules: _____	Inverter: _____ Batteries <input type="checkbox"/> Yes <input type="checkbox"/> No
Total Battery Capacity kW DC: _____	Manufacturer names and Model #: _____
System Location: _____	Inverter Location: _____
Permission to monitor? <input type="checkbox"/> Yes <input type="checkbox"/> No	

Parts C -G To be Completed upon Final Compliance

C. Installation Contractor Information	
Installation Contractor: <u>Ecolectrics Solar</u>	FL License No.: <u>CBC1264849</u>
Address: <u>1119 Lake Blanche Drive</u>	
City: <u>Orlando</u>	Zip Code: <u>32808</u>
Daytime Phone: <u>512-717-0664</u>	Fax: <u>512-593-2890</u> Email: <u>chirag@ecolectricsusa.com</u>
Proposed Installation Date: <u>October, 2023</u>	
D. Hardware and Installation Compliance	
1. The system hardware is in compliance with Underwriters Laboratories (UL) 1741, and IEEE 1547 standards for utility interconnected inverters.	
Signed (Contractor): <u><i>Chirag Patel</i></u>	Date: <u>September 18, 2023</u>
Name (Print): <u>Chirag Patel</u>	Company: <u>Ecolectrics Solar</u>
E. Owner Acknowledgment	
The system has been installed to my satisfaction and I have been given system warranty information, and an operation manual. Also, I have been thoroughly instructed in the operation and maintenance of the system.	
Signed (Owner): <u><i>Bryan W. Brooks</i></u>	Date: <u>24 Oct 23</u>
F. Electrical Code Inspection	
Satisfies Code Requirements	
Inspector Name (Print): _____	Date: _____
Inspector Signature: _____	
G. Duke Energy Florida, Inc. Approval	
Satisfies DEF Interconnection Requirements	
DEF Representative Name (Print): <u>Juan C</u>	Phone: <u>866-233-2290</u>
DEF Representative Signature: <u><i>JC</i></u>	Date: <u>11/21/2023</u>





DUKE ENERGY FLORIDA, INC.
STANDARD INTERCONNECTION AGREEMENT
FOR TIER 3 CUSTOMER-OWNED RENEWABLE GENERATION SYSTEMS (>100kw, <= 2mw)

THIS AGREEMENT is made this ____ day of _____, _____, by and between Orange County, Florida (hereinafter called the Customer), located at the address shown in the attached Application and Compliance Form, and Duke Energy Florida, Inc., a corporation organized and existing under the laws of the State of Florida (hereinafter called the Company).

WITNESSETH:

WHEREAS, the Customer has made a request to interconnect its renewable generation Tier 3 system(s), more than 100 kilowatts or less than or equal to 2 megawatts in total, which is primarily intended to offset part or all of the customer's electricity requirements, with the Company's electric supply grid at the Customer's presently metered location.

NOW, THEREFORE, in consideration of the mutual covenants and agreements expressed herein, the Company and the Customer agree as follows:

General Responsibilities of Both Parties:

1. The Customer certifies that the system's hardware and its installation, operation and maintenance is in compliance and shall continue to comply with the applicable standards, codes and manufacturer's instructions set forth in the Application and Compliance Form attached hereto and incorporated herein, and that all other information therein provided by the Customer is true and correct. The Customer shall notify the Company in writing of any changes to its system.
2. The Customer shall pay an application fee of \$750 for this Tier 3 Customer-owned renewable generation system interconnection.
3. In order to commence the process for interconnection, the Customer shall provide the Company a completed application. Applications can be downloaded from the Company's website: www.progress-energy.com/florida/home/renewable-energy/interconnect_page.
4. 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 the Company's utility system in delivering and restoring system power; and is responsible for insuring that the equipment is inspected, maintained, and tested in accordance with the manufacturer's instructions to insure that it is operating correctly and safely.
5. Customer-owned renewable generation shall be considered certified for interconnected operation if it has been submitted by a manufacturer to a nationally recognized testing and certification laboratory, and has been tested and listed by the laboratory for continuous interactive operation with an electric distribution system in compliance with the applicable codes and standards of IEEE 1547, IEEE 1547.1 and UL 1741. Customer-owned renewable generation shall include a utility-interactive inverter, or other device certified pursuant to item 5 listed above, that performs the function of automatically isolating the Customer-owned generation equipment from the electric grid in the event the electric grid loses power. The Customer agrees to provide 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.
6. The Company requires that the Customer maintain general liability insurance for personal injury and property damage in the amount of not less than two million dollars (\$2,000,000). The Customer shall provide the Company proof of continuing insurance coverage on an annual basis to the extent permitted by law. For government entities, the policy coverage shall not exceed the entity's maximum liability established by law. Proof of self-insurance consistent with law shall satisfy this requirement.
7. The total capacity of the Customer generation system(s) does not exceed 90% of the rating of service currently provided to the customer (based on service size, transformer rating, etc.) and has a total gross power rating of greater than 100kw up to 2mw.

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8. The Company may isolate the Customer's system from the distribution grid using the manual disconnect switch 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. Conditions which may require the disconnection of the Customer's system are:
- (a) Company utility system emergencies or maintenance requirements
 - (b) Hazardous conditions existing on the Company's utility system due to the operation of the Customer's generation or protective equipment as determined by the Company.
 - (c) Adverse electrical effects (such as power quality problems) on the electrical equipment of the company's other electric consumers caused by the Customer's generation as determined by the Company.
 - (d) Failure of the Customer to maintain the required insurance coverage.
- In the event the Company disconnects the Customer's system without prior notice, the Company will leave a door hanger notifying the customer of the disconnection including an explanation of the conditions requiring such action.
9. The Customer, to the extent permitted by law without waiving or limiting any defenses of sovereign immunity, shall hold harmless and indemnify the Company for all loss to third parties resulting from the operation of the customer-owned renewable generation, except when the loss occurs due to the negligent actions of the Company. The Company shall hold harmless and indemnify the Customer for all loss to third parties resulting from the operation of the Company's system, except when the loss occurs due to the negligent actions of the Customer. Nothing herein shall be intended to serve as a waiver of limitation of Customer's sovereign immunity defenses as allowed by law.
10. Prior to connection and parallel operation of the Customer's generation system with the Company's electric system, the Customer shall provide 10 days notice and permit the Company, if it should so choose, to inspect the system and its component equipment and the documents necessary to insure compliance with various sections of this Agreement and to have personnel present on the in-service date of the Customer's generation system equipment and protective apparatus.
11. In no event shall any statement, representation, or lack thereof, either express or implied, by the Company, relieve the Customer of exclusive responsibility for the Customer's generation system. Specifically, any company inspection of the Customer's system shall not be construed as confirming or endorsing the Customer's system design or its operating or maintenance procedures nor as a warranty or guarantee as to the safety, reliability, or durability of the Customer's equipment. The Company's inspection, acceptance, or its failure to inspect shall not be deemed an endorsement of any of the Customer's equipment or procedures.
12. The Company will install metering equipment on the Customer's premises capable of measuring any excess kilowatt-hours produced by the Customer's system and delivered to the Company's electric system. The cost of the meter, installation, maintenance, and any costs of reading and billing associated with this meter equipment shall be borne by the Company. The value of such excess generation shall be reflected on the Customer's bill based on the Company's applicable net metering for customer-owned renewable generation tariff approved by the Florida Public Service Commission. This tariff can be found at the Company's website – www.progress-energy.com/florida/home/renewable-energy/interconnect.page.
13. The Customer must install a manual AC load break disconnect switch at their expense which shall be mounted separate from, but adjacent to the Company's meter socket. The Customer shall ensure that such disconnect switch shall remain readily accessible to the Company and be capable of being locked in the open position with a single Company utility lock.
14. On termination of services pursuant to this Agreement, the Company shall remove any additional metering equipment related to this Agreement. At the Customer's expense, within 10 working days following the termination, the Customer shall permanently isolate the generation system and any associated equipment from the Company's electric supply system, and notify the Company that the isolation is complete.
- Inspection and On-going Compliance:**
15. The Company will provide the Customer with as much notice as reasonably possible, either in writing, e-mail, facsimile or by phone as to when the Company may conduct inspections and/or document review. Upon reasonable notice, the Company shall have access to the Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed by this Interconnection Agreement or, if necessary, to meet the Company's legal obligation to provide service to its Customers. At any time without notice in the event of emergency or hazardous conditions, the Company shall have access to the customers premise to operate the manual disconnect switch.
- Modifications/Additions to Customer-owned Renewable Generation:**
16. If the Customer-owned renewable generation system is subsequently modified in order to increase its Gross power rating, the Customer must notify the Company by submitting a new application specifying the modification at least thirty days prior to making the modification.

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19. If the Customer adds another Customer-owned renewable generator system which i.) utilizes the same utility inter-active inverter for both systems; or ii.) utilizes a separate utility inter-active inverter for each system the Customer shall provide thirty days notice prior to installation.
20. In the event any Customer modifications or additions result in the input to any Company meter so as to exceed the limits of a Tier 3 system (capacity of more than 2 megawatts), then all terms and conditions of the net metering tariff no longer apply and the customer will be required to enter an agreement to sell all power to the Company at the As-Available and COG-1 tariff or the Standard Offer and COG-2 tariff.
21. The Interconnection Agreement which applies in instances described in sections 18-20 above shall be determined by the maximum output of the generation system(s) which is connected to the Company's meter. In all instances described in this section, the Customer shall submit a new application to the Company and shall enter into a new Interconnection Agreement.

Renewable Energy Credits:

22. The Customer shall retain any Renewable Energy Certificates produced by the Customer-owned renewable generation equipment; and any additional meters necessary for measuring the total renewable electricity generated for the purposes of receiving Renewable Energy Certificates shall be installed at the Customer's expense, unless otherwise determined during negotiations for the sale of the Customer's Renewable Energy Certificates to the Company.

Lease Agreements:

23. The Customer shall provide the Company a copy of the lease agreement, as applicable, for any and all leased interconnection equipment.
24. The Customer shall not enter into any lease agreement that results in the retail sale of electricity. Notwithstanding this restriction, in the event the Customer so enters such an agreement, the Customer may become subject to the Florida Public Service Commission's jurisdiction and may be subject to various fines and penalties.

Assignment:

25. The Customer shall not have the right to assign its benefits or obligations under this Agreement without the Company's prior written consent and such consent shall not be unreasonably withheld. The Company may require the assignee to sign a new copy of this Agreement, agreeing to all its requirements. The Customer shall notify the Company in writing prior to any such anticipated assignment.
26. An assignee to this Interconnection Agreement shall have the same rights, responsibilities and obligations as the assigning Party.

Entire Agreement:

27. In executing this Agreement, the Company does not, nor should it be construed to extend its credit or financial support for the benefit or any third parties lending money to or having other transactions with Customer or any assignee of this Agreement.
28. Disputes between the Parties shall be handled in accordance with subsection 11 of Florida Public Service Commission Rule 25-6.065 F.A.C. – Interconnection and Net Metering of Customer-owned Renewable Generation.
29. The Customer must execute this Interconnection Agreement and the Customer's subsequent application submitted thereunder and return it to the Company at least thirty calendar days prior to beginning parallel operations.
30. This Agreement shall be governed by and construed and enforced in accordance with the laws, rules and regulations of the State of Florida and the Company's Tariff as may be modified, changed, or amended from time to time.

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- 31. The Company's tariff and associated technical terms and abbreviations, general rules and regulations and standard electric service requirements, as may be applicable, are incorporated by reference.
- 32. This Interconnection Agreement supersedes all previous agreements or representations, either written or oral, heretofore in effect between the Company and the Customer, made in respect to matters herein contained, and when duly executed, this Interconnection Agreement constitutes the entire agreement between Parties hereto.
- 33. For those Customers which are government entities, provisions within this agreement will apply to the extent the agency is not legally barred from executing such provisions by State or Federal law.

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

CUSTOMER

COMPANY

Bryan W. Brooks

Signature of Customer or Authorized Representative

Juan C

Signature of Company Representative

County Administrator

Title of Authorized Representative

Lead Business Services Specialist

Title of Company Representative

Customer Account Number 7189224296

