STATE OF FLORIDA

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Public Service Commission

December 31, 2007

Mr. Scott Boyd, Executive Director
Joint Administrative Procedures
Committee
Room 120 Holland Building
Tallahassee, FL 32399-1300

RE: Docket No. 070674-EI – Proposed Amendment of Rule No. 25-6.065 Interconnection and Net Metering of Customer-Owned Renewable Generation

Dear Mr. Boyd:

Enclosed are the following materials concerning the above referenced proposed rule:

1. A copy of the rule.
2. A copy of the F.A.W. notice.
3. A statement of facts and circumstances justifying the proposed rule.
4. A federal standards statement.
5. A statement of estimated regulatory costs.

If there are any questions with respect to this rule, please do not hesitate to call me.

Sincerely,

Rosanne Gervasi
Associate General Counsel

070674 Amendment.rg.doc
Enclosures
cc: [redacted]Clerk

(Substantial rewording of Rule 25-6.065 follows. See Florida Administrative Code for present text.)

25-6.065 Interconnection and Net Metering of Customer-Owned Renewable Generation

(1) Application and Scope. The purpose of this rule is to promote the development of small customer-owned renewable generation, particularly solar and wind energy systems; diversify the types of fuel used to generate electricity in Florida; lessen Florida's dependence on fossil fuels for the production of electricity; minimize the volatility of fuel costs; encourage investment in the state; improve environmental conditions; and, at the same time, minimize costs of power supply to investor-owned utilities and their customers. This rule applies to all investor-owned utilities, except as otherwise stated in subsection (10).

(2) Definitions. As used in this rule, the term

(a) "Customer-owned renewable generation" means an electric generating system located on a customer's premises that is primarily intended to offset part or all of the customer's electricity requirements with renewable energy. The term "customer-owned renewable generation" does not preclude the customer of record from contracting for the purchase, lease, operation, or maintenance of an on-site renewable generation system with a third-party under terms and conditions that do not include the retail purchase of electricity from the third party.

(b) "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 the investor-owned 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 .85 in order to account for losses during the conversion from DC to AC.

(c) "Net metering" means a metering and billing methodology whereby customer-

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owned renewable generation is allowed to offset the customer's electricity consumption on-site.

(d) "Renewable energy," as defined in Section 377.803, Florida Statutes, means electrical, mechanical, or thermal energy produced from a method that uses one of more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power.

(3) Standard Interconnection Agreements. Each investor-owned utility shall, within 30 days of the effective date of this rule, file for Commission approval a Standard Interconnection Agreement for expedited interconnection of customer-owned renewable generation, up to 2 MW, that complies with the following standards:

(a) IEEE 1547 (2003) Standard for Interconnecting Distributed Resources with Electric Power Systems;

(b) IEEE 1547.1 (2005) Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems; and

(c) UL 1741 (2005) Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources.

(d) A copy of IEEE 1547 (2003), ISBN number 0-7381-3720-0, and IEEE 1547.1 (2005), ISBN number 0-7381-4737-0, may be obtained from the Institute of Electric and Electronic Engineers, Inc. (IEEE), 3 Park Avenue, New York, NY, 10016-5997. A copy of UL 1741 (2005) may be obtained from COMM 2000, 1414 Brook Drive, Downers Grove, IL 60515.

(4) Customer Qualifications and Fees.

(a) To qualify for expedited interconnection under this rule, customer-owned renewable generation must have a gross power rating that:

1. does not exceed 90% of the customer's utility distribution service rating; and

2. falls within one of the following ranges:

Tier 1 - 10 kW or less;

Tier 2 – greater than 10 kW and less than or equal to 100 kW; or

Tier 3 – greater than 100 kW and less than or equal to 2 MW.

(b) 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 listed in subsection (3).

(c) Customer-owned renewable generation shall include a utility-interactive inverter, or other device certified pursuant to subsection (4)(b) that performs the function of automatically isolating the customer-owned generation equipment from the electric grid in the event the electric grid loses power.

(d) For Tiers 1 and 2, provided the customer-owned renewable generation equipment complies with subsections (4)(a) and (b), the investor-owned utility shall not require further design review, testing, or additional equipment other than that provided for in subsection (6). For Tier 3, if an interconnection study is necessary, further design review, testing and additional equipment as identified in the study may be required.

(e) Tier 1 customers who request interconnection of customer-owned renewable generation shall not be charged fees in addition to those charged to other retail customers without self-generation, including application fees.

(f) Along with the Standard Interconnection Agreement filed pursuant to subsection (3), each investor-owned utility may propose for Commission approval a standard application fee for Tiers 2 and 3, including itemized cost support for each cost contained within the fee.

(g) Each investor-owned utility may also propose for Commission approval an

Interconnection Study Charge for Tier 3.

(h) Each investor-owned utility shall show that their fees and charges are cost-based and reasonable. No fees or charges shall be assessed for interconnecting customer-owned renewable generation without prior Commission approval.

(5) Contents of Standard Interconnection Agreement. Each investor-owned utility's customer-owned renewable generation Standard Interconnection Agreement shall, at a minimum, contain the following:

(a) A requirement that customer-owned renewable generation must be inspected and approved by local code officials prior to its operation in parallel with the investor-owned utility to ensure compliance with applicable local codes.

(b) Provisions that permit the investor-owned utility to inspect customer-owned renewable generation and its component equipment, and the documents necessary to ensure compliance with subsections (2) through (4). The customer shall notify the investor-owned utility at least 10 days prior to initially placing customer equipment and protective apparatus in service, and the investor-owned utility shall have the right to have personnel present on the in-service date. If the customer-owned renewable generation system is subsequently modified in order to increase its gross power rating, the customer must notify the investor-owned utility by submitting a new application specifying the modifications at least 30 days prior to making the modifications.

(c) A provision that the customer is responsible for protecting the renewable generating equipment, inverters, protective devices, and other system components from damage from the normal and abnormal conditions and operations that occur on the investor-owned utility system in delivering and restoring power; and is responsible for ensuring that customer-owned renewable generation equipment is inspected, maintained, and tested in accordance with the manufacturer's instructions to ensure that it is operating correctly and

safely.

(d) A provision that the customer shall hold harmless and indemnify the investor-owned utility 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 investor-owned utility. A provision that the investor-owned utility shall hold harmless and indemnify the customer for all loss to third parties resulting from the operation of the investor-owned utility's system, except when the loss occurs due to the negligent actions of the customer.

(e) A requirement for general liability insurance for personal and property damage, or sufficient guarantee and proof of self-insurance, in the amount of no more than $1 million for Tier 2, and no more than $2 million for Tier 3. The investor-owned utility shall not require liability insurance for Tier 1. The investor-owned utility may include in the Interconnection Agreement a recommendation that Tier 1 customers carry an appropriate level of liability insurance.

(f) Identification of any fees or charges approved pursuant to subsection (4).

(6) Manual Disconnect Switch

(a) Each investor-owned utility's customer-owned renewable generation Standard Interconnection Agreement may require customers to install, at the customer's 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 and any customer wiring connected to the investor-owned utility's system. Inverter-based Tier 1 customer-owned renewable generation systems shall be exempt from this requirement, unless the manual disconnect switch is installed at the investor-owned utility's expense. The manual disconnect switch shall be mounted separate from, but adjacent to, the meter socket and shall be readily accessible to the investor-owned utility and capable of being locked in the open position with a single investor-owned utility padlock.

(b) The investor-owned utility may open the switch pursuant to the conditions set forth in subsection (6)(c), isolating the customer-owned renewable generation, without prior notice to the customer. To the extent practicable, however, prior notice shall be given. If prior notice is not given, the utility shall at the time of disconnection leave a door hanger notifying the customer that their customer-owned renewable generation has been disconnected, including an explanation of the condition necessitating such action. The investor-owned utility shall reconnect the customer-owned renewable generation as soon as the condition necessitating disconnection is remedied.

(c) Any of the following conditions shall be cause for the investor-owned utility to disconnect customer-owned renewable generation from its system:

1. Emergencies or maintenance requirements on the investor-owned utility's electric system;

2. Hazardous conditions existing on the investor-owned utility system due to the operation of the customer's generating or protective equipment as determined by the investor-owned utility;

3. Adverse electrical effects, such as power quality problems, on the electrical equipment of the investor-owned utility's other electric consumers caused by the customer-owned renewable generation as determined by the investor-owned utility;

4. Failure of the customer to maintain the required insurance coverage.

(7) Administrative Requirements.

(a) Each investor-owned utility shall maintain on its website a downloadable application for interconnection of customer-owned renewable generation, detailing the information necessary to execute the Standard Interconnection Agreement. Upon request the investor-owned utility shall provide a hard copy of the application within 5 business days.

(b) Within 10 business days of receipt of the customer's application, the investor-

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owned utility shall provide written notice that it has received all documents required by the Standard Interconnection Agreement or indicate how the application is deficient. Within 10 business days of receipt of a completed application, the utility shall provide written notice verifying receipt of the completed application. The written notice shall also include dates for any physical inspection of the customer-owned renewable generation necessary for the investor-owned utility to confirm compliance with subsections (2) through (6), and confirmation of whether a Tier 3 interconnection study will be necessary.

(c) The Standard Interconnection Agreement shall be executed by the investor-owned utility within 30 calendar days of receipt of a completed application. If the investor-owned utility determines that an interconnection study is necessary for a Tier 3 customer, the investor-owned utility shall execute the Standard Interconnection Agreement within 90 days of a completed application.

(d) The customer must execute the Standard Interconnection Agreement and return it to the investor-owned utility at least 30 calendar days prior to beginning parallel operations and within one year after the utility executes the Agreement. All physical inspections must be completed by the utility within 30 calendar days of receipt of the customer's executed Standard Interconnection Agreement. If the inspection is delayed at the customer's request, the customer shall contact the utility to reschedule an inspection. The investor-owned utility shall reschedule the inspection within 10 business days of the customer's request.

(8) Net Metering.

(a) Each investor-owned utility shall enable each customer-owned renewable generation facility interconnected to the investor-owned utility's electrical grid pursuant to this rule to net meter.

(b) Each investor-owned utility shall install, at no additional cost to the customer, metering equipment at the point of delivery capable of measuring the difference between the

electricity supplied to the customer from the investor-owned utility and the electricity generated by the customer and delivered to the investor-owned utility's electric grid.

(c) Meter readings shall be taken monthly on the same cycle as required under the otherwise applicable rate schedule.

(d) The investor-owned utility shall charge for electricity used by the customer in excess of the generation supplied by customer-owned renewable generation in accordance with normal billing practices.

(e) During any billing cycle, excess customer-owned renewable generation delivered to the investor-owned utility's electric grid shall be credited to the customer's energy consumption for the next month's billing cycle.

(f) Energy credits produced pursuant to subsection (8)(e) shall accumulate and be used to offset the customer's energy usage in subsequent months for a period of not more than twelve months. At the end of each calendar year, the investor-owned utility shall pay the customer for any unused energy credits at an average annual rate based on the investor-owned utility's COG-1, as-available energy tariff.

(g) When a customer leaves the system, that customer's unused credits for excess kWh generated shall be paid to the customer at an average annual rate based on the investor-owned utility's COG-1, as-available energy tariff.

(h) Regardless of whether excess energy is delivered to the investor-owned utility's electric grid, the customer shall continue to pay the applicable customer charge and applicable demand charge for the maximum measured demand during the billing period. The investor-owned utility shall charge for electricity used by the customer in excess of the generation supplied by customer-owned renewable generation at the investor-owned utility's otherwise applicable rate schedule. The customer may at their sole discretion choose to take service under the investor-owned utility's standby or supplemental service rate, if available.

(9) Renewable Energy Certificates. Customers shall retain any Renewable Energy Certificates associated with the electricity produced by their customer-owned renewable generation equipment. 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 investor-owned utility.

(10) Reporting Requirements. Each electric utility, as defined in Section 366.02(2), Florida Statutes, shall file with the Commission as part of its tariff a copy of its Standard Interconnection Agreement form for customer-owned renewable generation. In addition, each electric utility shall report the following, by April 1 of each year.

(a) Total number of customer-owned renewable generation interconnections as of the end of the previous calendar year;

(b) Total kW capacity of customer-owned renewable generation interconnected as of the end of the previous calendar year;

(c) Total kWh received by interconnected customers from the electric utility, by month and by year for the previous calendar year;

(d) Total kWh of customer-owned renewable generation delivered to the electric utility, by month and by year for the previous calendar year; and

(e) Total energy payments made to interconnected customers for customer-owned renewable generation delivered to the electric utility for the previous calendar year, along with the total payments made since the implementation of this rule.

(f) For each individual customer-owned renewable generation interconnection:

1. Renewable technology utilized;

2. Gross power rating;

3. Geographic location by county; and

4. Date interconnected.

(11) Dispute Resolution. Parties may seek resolution of disputes arising out of the interpretation of this rule pursuant to Rule 25-22.032, F.A.C, Customer Complaints, or Rule 25-22.036, F.A.C., Initiation of Formal Proceedings.

Specific Authority 350.127(2), 366.05(1), 366.92, FS. Law Implemented 366.02(2), 366.04(2)(c), (5), (6), 366.041, 366.05(1), 366.81, 366.82(1),(2), 366.91(1),(2), 366.92, FS. History–New 2-11-02, Amended _____.

InterconnectionNetMeteringRule.rg.doc

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Notice of Proposed Rule

PUBLIC SERVICE COMMISSION

RULE NO: RULE TITLE

25-6.065: Interconnection and Net Metering of Customer-Owned Renewable Generation

PURPOSE AND EFFECT: The purpose of the rule amendments is to promote the development of customer-owned renewable generation. This will offset electric consumption and help diversify the types of fuel used to generate electricity in Florida, thereby decreasing Florida's dependence on fossil fuels and minimizing the volatility of fuel cost and supply. In addition, encouraging the development of customer-owned renewable generation will stimulate investment within the state and improve environmental conditions. The development of customer-owned renewable generation also effectively acts as a conservation measure by reducing the amount of electricity purchased from utilities. The rule amendments will expedite interconnection of customer-owned renewable generation and minimize costs that customers experience when attempting to interconnect to their utility. In addition, the rule amendments will permit customers to offset electric consumption through net metering, further mitigating costs associated with self-generation. Docket No. 070674-EI.

SUMMARY: The rule amendments will require investor-owned utilities (IOUs) to file for approval with the Commission, and offer customers a standard interconnection agreement for the expedited interconnection of customer-owned renewable generation systems. The rule amendments also will establish the procedures for net metering, including the treatment of net excess generation monthly and annually and identify processes for dispute resolution. Reporting requirements are applicable to all electric utilities, including municipals and electric cooperatives, for customers with interconnected renewable generation and net metered customers.

SUMMARY OF STATEMENT OF ESTIMATED REGULATORY COSTS: The rule amendments should result in no significant implementation or enforcement cost to the Commission, and will have no significant impact on Commission revenues. The additional proposed interconnection agreements and possible dispute resolution will add some additional Commission and staff time. The IOUs will have additional reporting requirement and compliance costs associated with the rule amendment. In particular, the IOUs will have additional costs related to billing modifications, processing applications, meter installation and other interconnection costs. Customers of the IOUs will be able to interconnect their qualified renewable generating systems to the electric grid and benefit by having their energy consumption offset by their own generation.

Any person who wishes to provide information regarding a statement of estimated regulatory costs, or provide a proposal for a lower cost regulatory alternative must do so in writing within 21 days of this notice.

SPECIFIC AUTHORITY: 350.127(2), 366.05(1), 366.92, FS

LAW IMPLEMENTED: 366.02(2), 366.04(2)(c), (5), (6), 366.041, 366.05(1), 366.81, 366.82(1), (2), 366.91(1), (2), 366.92, FS

IF REQUESTED WITHIN 21 DAYS OF THE DATE OF THIS NOTICE, A HEARING WILL BE SCHEDULED AND ANNOUNCED IN FAW.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in such a hearing is asked to advise the agency at least 48 hours before the hearing by contacting: Office of Commission Clerk, 2540 Shumard Oak Blvd., Tallahassee, FL 32399-0850 (850) 413-6770. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

THE PERSON TO BE CONTACTED REGARDING THE PROPOSED RULE IS: Mark Futrell, Division of Economic Regulation, 2540 Shumard Oak Blvd., Tallahassee, FL 32399-0850 (850) 413-6692.

THE FULL TEXT OF THE PROPOSED RULE IS:

(Substantial rewording of Rule 25-6.065 follows. See Florida Administrative Code for present text.)

25-6.065 Interconnection and Net Metering of Customer-Owned Renewable Generation

(1) Application and Scope. The purpose of this rule is to promote the development of small customer-owned renewable generation, particularly solar and wind energy systems; diversify the types of fuel used to generate electricity in Florida; lessen Florida's dependence on fossil fuels for the production of electricity; minimize the volatility of fuel costs; encourage investment in the state; improve environmental conditions; and, at the same time, minimize costs of power supply to investor-owned utilities and their customers. This rule applies to all investor-owned utilities, except as otherwise stated in subsection (10).

(2) Definitions. As used in this rule, the term

(a) "Customer-owned renewable generation" means an electric generating system located on a customer's premises that is primarily intended to offset part or all of the customer's electricity requirements with renewable energy. The term "customer-owned renewable generation" does not preclude the customer of record from contracting for the purchase, lease, operation, or maintenance of an on-site renewable generation system with a third-party under terms and conditions that do not include the retail purchase of electricity from the third party.

(b) "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 the investor-owned 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 .85 in order to account for losses during the conversion from DC to AC.

(c) "Net metering" means a metering and billing methodology whereby customer-owned renewable generation is allowed to offset the customer's electricity consumption on-site.

(d) "Renewable energy," as defined in Section 377.803, Florida Statutes, means electrical, mechanical, or thermal energy produced from a method that uses one of more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power.

(3) Standard Interconnection Agreements. Each investor-owned utility shall, within 30 days of the effective date of this rule, file for Commission approval a Standard Interconnection Agreement for expedited interconnection of customer-owned renewable generation, up to 2 MW, that complies with the following standards:

(a) IEEE 1547 (2003) Standard for Interconnecting Distributed Resources with Electric Power Systems;

(b) IEEE 1547.1 (2005) Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems; and

(c) UL 1741 (2005) Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources.

(d) A copy of IEEE 1547 (2003), ISBN number 0-7381-3720-0, and IEEE 1547.1 (2005), ISBN number 0-7381-4737-0, may be obtained from the Institute of Electric and Electronic Engineers, Inc. (IEEE), 3 Park Avenue, New York, NY, 10016-5997. A copy of UL 1741 (2005) may be obtained from COMM 2000, 1414 Brook Drive, Downers Grove, IL 60515.

(4) Customer Qualifications and Fees.

(a) To qualify for expedited interconnection under this rule, customer-owned renewable generation must have a gross power rating that:

1. does not exceed 90% of the customer's utility distribution service rating; and

2. falls within one of the following ranges:

Tier 1 - 10 kW or less;

Tier 2 – greater than 10 kW and less than or equal to 100 kW; or

Tier 3 – greater than 100 kW and less than or equal to 2 MW.

(b) 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 listed in subsection (3).

(c) Customer-owned renewable generation shall include a utility-interactive inverter, or other device certified pursuant to subsection (4)(b) that performs the function of automatically isolating the customer-owned generation equipment from the electric grid in the event the electric grid loses power.

(d) For Tiers 1 and 2, provided the customer-owned renewable generation equipment complies with subsections (4)(a) and (b), the investor-owned utility shall not require further design review, testing, or additional equipment other than that provided for in subsection (6). For Tier 3, if an interconnection study is necessary, further design review, testing and additional equipment as identified in the study may be required.

(e) Tier 1 customers who request interconnection of customer-owned renewable generation shall not be charged fees in addition to those charged to other retail customers without self-generation, including application fees.

(f) Along with the Standard Interconnection Agreement filed pursuant to subsection (3), each investor-owned utility may propose for Commission approval a standard application fee for Tiers 2 and 3, including itemized cost support for each cost contained within the fee.

(g) Each investor-owned utility may also propose for Commission approval an Interconnection Study Charge for Tier 3.

(h) Each investor-owned utility shall show that their fees and charges are cost-based and reasonable. No fees or charges shall be assessed for interconnecting customer-owned renewable generation without prior Commission approval.

(5) Contents of Standard Interconnection Agreement. Each investor-owned utility's customer-owned renewable generation Standard Interconnection Agreement shall, at a minimum, contain the following:

(a) A requirement that customer-owned renewable generation must be inspected and approved by local code officials prior to its operation in parallel with the investor-owned utility to ensure compliance with applicable local codes.

(b) Provisions that permit the investor-owned utility to inspect customer-owned renewable generation and its component equipment, and the documents necessary to ensure compliance with subsections (2) through (4). The customer shall notify the investor-owned utility at least 10 days prior to initially placing customer equipment and protective apparatus in service, and the investor-owned utility shall have the right to have personnel present on the in-service date. If the customer-owned renewable generation system is subsequently modified in order to increase its gross power rating, the customer must notify the investor-owned utility by submitting a new application specifying the modifications at least 30 days prior to making the modifications.

(c) A provision that the customer is responsible for protecting the renewable generating equipment, inverters, protective devices, and other system components from damage from the normal and abnormal conditions and operations that occur on the investor-owned utility system in delivering and restoring power; and is responsible for ensuring that customer-owned renewable generation equipment is inspected, maintained, and tested in accordance with the manufacturer's instructions to ensure that it is operating correctly and safely.

(d) A provision that the customer shall hold harmless and indemnify the investor-owned utility 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 investor-owned utility. A provision that the investor-owned utility shall hold harmless and indemnify the customer for all loss to third parties resulting from the operation of the investor-owned utility's system, except when the loss occurs due to the negligent actions of the customer.

(e) A requirement for general liability insurance for personal and property damage, or sufficient guarantee and proof of self-insurance, in the amount of no more than $1 million for Tier 2, and no more than $2 million for Tier 3. The investor-owned utility shall not require liability insurance for Tier 1. The investor-owned utility may include in the Interconnection Agreement a recommendation that Tier 1 customers carry an appropriate level of liability insurance.

(f) Identification of any fees or charges approved pursuant to subsection (4).

(6) Manual Disconnect Switch

(a) Each investor-owned utility's customer-owned renewable generation Standard Interconnection Agreement may require customers to install, at the customer's 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 and any customer wiring connected to the investor-owned utility's system. Inverter-based Tier 1 customer-owned renewable generation systems shall be exempt from this requirement, unless the manual disconnect switch is installed at the investor-owned utility's expense. The manual disconnect switch shall be mounted separate from, but adjacent to, the meter socket and shall be readily accessible to the investor-owned utility and capable of being locked in the open position with a single investor-owned utility padlock.

(b) The investor-owned utility may open the switch pursuant to the conditions set forth in subsection (6)(c), isolating the customer-owned renewable generation, without prior notice to the customer. To the extent practicable, however, prior notice shall be given. If prior notice is not given, the utility shall at the time of disconnection leave a door hanger notifying the customer that their customer-owned renewable generation has been disconnected, including an explanation of the condition necessitating such action. The investor-owned utility shall reconnect the customer-owned renewable generation as soon as the condition necessitating disconnection is remedied.

(c) Any of the following conditions shall be cause for the investor-owned utility to disconnect customer-owned renewable generation from its system:

1. Emergencies or maintenance requirements on the investor-owned utility's electric system;

2. Hazardous conditions existing on the investor-owned utility system due to the operation of the customer's generating or protective equipment as determined by the investor-owned utility;

3. Adverse electrical effects, such as power quality problems, on the electrical equipment of the investor-owned utility's other electric consumers caused by the customer-owned renewable generation as determined by the investor-owned utility;

4. Failure of the customer to maintain the required insurance coverage.

(7) Administrative Requirements.

(a) Each investor-owned utility shall maintain on its website a downloadable application for interconnection of customer-owned renewable generation, detailing the information necessary to execute the Standard Interconnection Agreement. Upon request the investor-owned utility shall provide a hard copy of the application within 5 business days.

(b) Within 10 business days of receipt of the customer's application, the investor-owned utility shall provide written notice that it has received all documents required by the Standard Interconnection Agreement or

indicate how the application is deficient. Within 10 business days of receipt of a completed application, the utility shall provide written notice verifying receipt of the completed application. The written notice shall also include dates for any physical inspection of the customer-owned renewable generation necessary for the investor-owned utility to confirm compliance with subsections (2) through (6), and confirmation of whether a Tier 3 interconnection study will be necessary.

(c) The Standard Interconnection Agreement shall be executed by the investor-owned utility within 30 calendar days of receipt of a completed application. If the investor-owned utility determines that an interconnection study is necessary for a Tier 3 customer, the investor-owned utility shall execute the Standard Interconnection Agreement within 90 days of a completed application.

(d) The customer must execute the Standard Interconnection Agreement and return it to the investor-owned utility at least 30 calendar days prior to beginning parallel operations and within one year after the utility executes the Agreement. All physical inspections must be completed by the utility within 30 calendar days of receipt of the customer's executed Standard Interconnection Agreement. If the inspection is delayed at the customer's request, the customer shall contact the utility to reschedule an inspection. The investor-owned utility shall reschedule the inspection within 10 business days of the customer's request.

(8) Net Metering.

(a) Each investor-owned utility shall enable each customer-owned renewable generation facility interconnected to the investor-owned utility's electrical grid pursuant to this rule to net meter.

(b) Each investor-owned utility shall install, at no additional cost to the customer, metering equipment at the point of delivery capable of measuring the difference between the electricity supplied to the customer from the investor-owned utility and the electricity generated by the customer and delivered to the investor-owned utility's electric grid.

(c) Meter readings shall be taken monthly on the same cycle as required under the otherwise applicable rate schedule.

(d) The investor-owned utility shall charge for electricity used by the customer in excess of the generation supplied by customer-owned renewable generation in accordance with normal billing practices.

(e) During any billing cycle, excess customer-owned renewable generation delivered to the investor-owned utility's electric grid shall be credited to the customer's energy consumption for the next month's billing cycle.

(f) Energy credits produced pursuant to subsection (8)(e) shall accumulate and be used to offset the customer's energy usage in subsequent months for a period of not more than twelve months. At the end of each calendar year, the investor-owned utility shall pay the customer for any unused energy credits at an average annual rate based on the investor-owned utility's COG-1, as-available energy tariff.

(g) When a customer leaves the system, that customer's unused credits for excess kWh generated shall be paid to the customer at an average annual rate based on the investor-owned utility's COG-1, as-available energy tariff.

(h) Regardless of whether excess energy is delivered to the investor-owned utility's electric grid, the customer shall continue to pay the applicable customer charge and applicable demand charge for the maximum measured demand during the billing period. The investor-owned utility shall charge for electricity used by the customer in excess of the generation supplied by customer-owned renewable generation at the investor-owned utility's otherwise applicable rate schedule. The customer may at their sole discretion choose to take service under the investor-owned utility's standby or supplemental service rate, if available.

(9) Renewable Energy Certificates. Customers shall retain any Renewable Energy Certificates associated with the electricity produced by their customer-owned renewable generation equipment. 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 investor-owned utility.

(10) Reporting Requirements. Each electric utility, as defined in Section 366.02(2), Florida Statutes, shall file with the Commission as part of its tariff a copy of its Standard Interconnection Agreement form for customer-owned renewable generation. In addition, each electric utility shall report the following, by April 1 of each year.

(a) Total number of customer-owned renewable generation interconnections as of the end of the previous calendar year;

(b) Total kW capacity of customer-owned renewable generation interconnected as of the end of the previous calendar year;

(c) Total kWh received by interconnected customers from the electric utility, by month and by year for the previous calendar year;

(d) Total kWh of customer-owned renewable generation delivered to the electric utility, by month and by year for the previous calendar year; and

(e) Total energy payments made to interconnected customers for customer-owned renewable generation delivered to the electric utility for the previous calendar year, along with the total payments made since the implementation of this rule.

(f) For each individual customer-owned renewable generation interconnection:

1. Renewable technology utilized;

2. Gross power rating;

3. Geographic location by county; and

4. Date interconnected.

(11) Dispute Resolution. Parties may seek resolution of disputes arising out of the interpretation of this rule pursuant to Rule 25-22.032, F.A.C, Customer Complaints, or Rule 25-22.036, F.A.C., Initiation of Formal Proceedings.

Specific Authority 350.127(2), 366.05(1), 366.92, FS. Law Implemented 366.02(2), 366.04(2)(c), (5), (6), 366.041, 366.05(1), 366.81, 366.82(1),(2), 366.91(1),(2), 366.92, FS. History–New 2-11-02, Amended _____.

NAME OF PERSON ORIGINATING PROPOSED RULE: Craig Hewitt, Division of Economic Regulation, 2540 Shumard Oak Blvd., Tallahassee, FL 32399-0850 (850) 413-6848

NAME OF SUPERVISOR OR PERSON WHO APPROVED THE PROPOSED RULE: Florida Public Service Commission

DATE PROPOSED RULE APPROVED BY AGENCY HEAD: December 18, 2007

DATE NOTICE OF PROPOSED RULE DEVELOPMENT PUBLISHED IN FAW: August 10, 2007

STATEMENT OF FACTS AND CIRCUMSTANCES JUSTIFYING RULE

Since the existing rule was adopted in 2002, the Commission has increasingly addressed issues related to renewable energy. In 2007, the Commission initiated efforts to further encourage renewable generation, beginning with a workshop on January 19, 2007, wherein the Commission collected information from a wide-range of interested parties, including: renewable generators, environmentalists, Florida utilities, and financial experts. In particular, the Commission heard speakers on: (1) the current status of renewables in Florida, (2) possible strategies to further encourage renewables, and (3) facilitating financing of renewable generation projects. Based on the information gained during the workshop, and at two subsequent workshops held in April 2007, and two rule development workshops held on August 30, 2007, and October 15, 2007, the Commission is pursuing further efforts to encourage the deployment of renewable generation in Florida, including the proposed rule amendments on expedited interconnection and net metering of customer-owned renewable generating facilities, as well as an exploration of a renewable portfolio standard for Florida.

STATEMENT ON FEDERAL STANDARDS

The proposed rule is no more restrictive than federal standards.

State of Florida

Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: December 6, 2007

TO: Office of General Counsel (Smith)

FROM: Division of Economic Regulation (Hewitt)

RE: Proposed Rule amendments to Rule 25-6.065 Interconnection of Small Photovoltaic Systems (Interconnection and Net Metering of Customer-Owned Renewable Generation)

DETAILED DESCRIPTION OF THE PROPOSED RULE AMENDMENTS

1. Why it is being proposed?

Expanded renewable energy policy encouraged by statute and edict

Proposed Rule amendments to Rule 25-6.065 Interconnection of Small Photovoltaic Systems further implements changes to Section 403.519, Florida Statutes. Section 403.519 requires the Commission to explicitly consider "the need for fuel diversity and supply reliability" in generation need determinations. Renewable energy generation furthers fuel diversity. Also, Section 366.91(1), F.S. states that it is in the public interest to promote the development of renewable energy resources in this state.

2. What does the rule do and how does it accomplish the goals?

The current rule gives detailed requirements for customer interconnection of solar photovoltaic systems to the electric grid of investor-owned electric utilities (IOUs).

The proposed amendments to Rule 25-6.065 expand the rule to include other renewable generation systems qualified to be interconnected and allow net metering of the energy generated. The rule title would be revised to reflect the expanded scope of the rule changes. The level of generation would determine which of three tiers a customer would qualify for up to 2 Mega Watts (MW) maximum. It would also encourage fuel diversity from traditional energy sources and fulfill the policy that the Commission encourages renewable energy sources and technologies. Municipal electric utilities (Munis) and electric cooperatives (Co-ops) would have to annually report to the Commission information on the implementation and impacts of their net metering and interconnection policies.

IMPACT ON THE PSC

Rule implementation and enforcement costs and impact on revenues for the agency and other state and local government entities

There should be no significant implementation or enforcement cost. There should be no significant impact on Commission revenues. However, as the number of renewable self-generators expands, there would be a slight slowing of utility electricity sales growth and subsequently a slight slowing of regulatory assessment fees to the Commission. There would be no impact on other state and local governmental agencies.

Incremental costs

The additional utilities' proposed interconnection agreements and possible dispute resolutions would add some additional Commissioners' and staff time. An additional incremental cost to the Commission would be the usual costs of promulgating a rule.

Incremental benefits

There should be no incremental benefits for the FPSC. Other state and local government would be impacted to the extent they install renewable generation facilities under a certain size.

WHO BESIDES THE PSC WILL BE AFFECTED BY ADOPTION OF THE PROPOSALS

Estimated number of entities required to comply and General description of individuals affected

Utilities

Any of the five IOUs in Florida would be required to interconnect customers with qualified renewable generator systems. The 18 electric cooperatives and 34 municipal operated electric companies would have to file reports of interconnections and net metering programs. The utilities sell electricity to industrial, commercial, and residential customers throughout the state.

Customers

Customers throughout the state would be affected if they install renewable generating systems and interconnect to the electrical grid. They would have to meet the installation standards of the utilities and safety codes. The costs would vary by customer and system.

Impact on small businesses, small cities, or small counties

There should be no impact from the rule changes on small businesses, small cities, or small counties unless they install small renewable generating systems and interconnect to the electrical grid. If they did, they would be impacted by the requirements of the rule to have their systems inspected and be in compliance to electrical codes.

Outside business and local governments

There should be no impact from the rule changes on businesses, cities, or counties unless they install small renewable generating systems and interconnect to the electrical grid.

HOW ARE THE PARTIES ABOVE AFFECTED BY THE ADOPTION OF THE PROPOSAL

Estimated transactional costs to individuals and entities

Utilities

Electric utilities would have additional costs because of the rule changes. There would be some additional reporting and compliance costs associated with the amendments. Other, more significant costs are listed below.

Florida Power & Light Company (FPL) estimates that full compliance with current rule proposal to implement system-based solution for net metering would entail:

a. Apply excess energy to current consumption and bill for the difference
b. Bank remaining excess energy for application to future billings
c. Credit any excess generation remaining at the end of 12 months at the average avoided cost rate
d. Allow residential and small commercial customers to take service on Standby/Supplemental rate

Total cost for implementation: $3.6 - $5.1 million, 3 - 4 years.

FPL estimates that the metering costs including parts and labor would be: Tier 1, $55; Tier 2, $170; and, Tier 3 $360 - $1,330.

Net metering pricing impact would be; Tier 1, 4.291¢ per kWh; Tier 2, 3.095¢ per kWh; Tier 3, no existing customers at this time.

Five year revenue impact projection:

Existing customers (98 residential and 6 small commercial customers) $2,783 x 5 = $13,915 lost revenues.

New customers (200 residential customers added per year) ($108,641) 1st year, ($214,499) 2nd year, ($317,574) 3rd year, ($423,432) 4th year, and ($532,074) 5th year; Total is $1,596,220 lost revenues.

Cost of reviewing applications for Tier 1 customers: approximately $200-$300 per customer.

Cost of installing a manual disconnect switch:

Safety switch	$801.73
Distribution lock	$ 35.40
Labor	$416.00
Total	$1,253.13

FPL identified the following benefits from the proposed rule:

- Requirement that customer-owned renewable generation include a utility-interactive inverter or other certified device that performs an automatic isolation function in the event the electric grid loses power
- Ability to perform an interconnection study and propose an interconnection study charge for Tier 3 systems
- Ability to propose a standard application fee for Tier 2 and 3 customers
- Ability to inspect the customer-owned system and component equipment prior to the customer placing the system in-service
- Requirement that the customer notify the utility if the system is modified to increase the gross power rating
- Ability to require Tier 2 and 3 customers to install manual disconnect switch at their expense

Progress Energy Florida (PEF) estimated the potential incremental costs to comply with the proposed rule requirements.

- Application fees - approximately $95 per customer
- Net metering incremental cost - approximately $115 per customer
- Meter reading - approximately $2.27 per visit
- Modifications to billing, processing, etc., 8,485 hours @ $50 per hour = $424,250
- Energy credit subsidy cost - 5¢-7¢ per kWh depending on time/circumstances.

PEF is not aware of any significant benefits from the proposed rule compared to the existing rule.

Tampa Electric Company (TECO) states that the incremental cost for manually billing renewable generating customers is $60 per month or $720 annually. Metering to meet new reporting requirements would be $100 over the cost of standard meters plus installation. Although TECO currently has 8 renewable energy generating customers, it estimated that the proposed rule changes would cost $1 million for reprogramming to automate billing with the Customer Information System (CIS) if the number of renewable energy generating customers reached 250. Other costs to comply with the propose rule changes would be $15,000 to $20,000 for additional insurance premiums, $4,000 for engineer training for additional inspections, and additional personnel to coordinate meter installations, inspections, and interconnect agreements would cost $150,000 annually. The rule would require that TECO install a disconnect switch for Tier 1 customers at $500-$1,000 each, and with 100 new customer per year, a total of $50,000 to $100,000 annually. The annual report preparation and filing cost for the proposed new report requirement would be $2,000 per year with a one time cost to recalculate the database of $2,000. Elimination of the Tier 1 application fee would cost TECO $89 per application to cover application processing costs. Finally, the estimated cost to cover paying higher than avoided cost to customers with excess energy would be approximately $5,000 per year with 100 customers eligible.

Summary of TECO estimated costs:

- One-time costs of $1,002,000, including reprogramming CIS and database expenses
- On-going costs of $188,900-$193,900 annually
- One-time, per unit cost of $600-$1,100 for each renewable generator for metering and disconnect switch
- On-going costs of $199 per year for each renewable generator for billing, lost application fee, and excess energy payment (100 new customers per year)

Gulf Power Company (GULF) estimates that the cost to comply with each of the proposed rule requirements would be (most costs apply to Tier 1 customers):

- One-time costs of $432,000, including reprogramming CIS and regulatory expenses
- On-going customer accounting administrative costs of $2,600
- One-time, per unit cost of $1,615 for each renewable generator for metering issues, consulting, processing, and inspections
- On-going costs of $42 per year for each renewable generator

GULF states that it is possible that there could be the benefit from the proposed rule of providing an incentive for the development and investment in customer-owned renewable generation in Florida; but, at the same time, the likely cost of subsidization of these customers by the general body of ratepayers.

Florida Public Utilities Company estimated that the most significant incremental costs associated with the proposed rule changes involve the existing CIS used for customer billing purposes. Their current CIS is not programmed to handle metering for a single bi-directional meter or two meters that are arranged to capture credit and/or payment for excess energy from the customer. Their software provider estimates between $70,000 and $175,000 to customize the

software to comply with the rule. The estimated incremental cost for the most typical, average installation would be $120.

Florida Municipal Electric Association (FMEA) estimated the following costs:

- Incremental cost per interconnected customer ranges from $125-$300.
- If 0.1% of their 1.3 million municipal electric utility customers participate, these costs would range from $162,500 to $390,000. If 1% of their customers participate, the cost would range from $1,625,000 to $3,900,000.
- If all potential costs for implementing a net metering and interconnection program are included, FMEA estimates the range to be $1.6 million to $39 million per year.

The wide range would depend on likely changes to billing/customer information systems (CIS), which for most utilities does not automatically account for negative balances or credits. Costs would include installing special metering for recording both customer consumption and renewable energy output. Costs would include payments and/or credits to customers depending on the local municipal utility's policy.

FMEA had great difficulty identifying quantifiable benefits, but considered possible fuel savings and renewable energy credits as well as other speculative avoided costs.

Customers

As a result of these rule amendments, electric utility customers, including local government entities and small businesses, would be able to interconnect their qualified renewable energy generators to the electric grid and benefit by having their electricity consumption from the utility be offset by their own generation. In addition, if their generation exceeds their consumption, excess renewable generation would be credited to the customers energy consumption for the next month's billing cycle. Excess energy credits would accumulate and at the end of the year, any unused energy credits must be paid for at their IOU's COG-1, as-available energy tariff rate.

Outside business including specifically small businesses

Outside businesses or small businesses would have the same benefits and costs complying with the rule as the other ratepayers that choose to install a renewable generation system in their rate class.

Local governments

Small cities or small counties would have the same benefits and costs complying with the rule as the other ratepayers that choose to install a renewable generation system.

ANY OTHER PERTINENT COMMENTS REGARDING THE APPLICATION OF THE PROPOSED RULE

The rule amendments should encourage renewable electric generation in the state, thereby increasing fuel diversity and lowering various gas emissions.

CH:kb
cc: Mary Andrews Bane
Chuck Hill
Casey Hinton
Hurd Reeves