Staff Presentation Workshop on Customer-owned Renewable Generation



Matthew A. Vogel Office of Industry Development and Market Analysis Florida Public Service Commission September 17, 2020

Interconnection & Net Metering





History of Rule Development

- In 2002, the Commission adopted Rule 25-6.065, F.A.C., which expedited the interconnection of small PV systems up to 10 kW.
- In 2005 and 2006, the Florida Legislature enacted sections 366.91, F.S. and 366.92 F.S., establishing renewable energy policy for Florida.
- In 2008, the Commission revised Rule 25-6.065, F.A.C. to require investor-owned utilities to allow for expedited interconnection and net metering of customer-owned renewable generation up to 2 MW.



History of Rule Development

- The Florida Legislature amended section 366.91, F.S., in 2008, to include requirements for interconnection and net metering of customer-owned renewable generation.
 - On or before January 1, 2009, Investor-owned electric utilities, municipal electric utilities and rural electric cooperatives were required to develop a standardized interconnection agreement and net metering program for customer-owned renewable generation.
 - "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."
 - "Net metering" means a metering and billing methodology whereby customer-owned renewable generation is allowed to offset the customer's electricity consumption on site."
 - "The commission shall establish requirements relating to the expedited interconnection and net metering of customer-owned renewable generation by public utilities and may adopt rules to administer this section."



Rule Structure

- Scope and Definitions
 - "promote the development of small customer-owned renewable generation"
 - "renewable energy" is energy produced from sources that can include biomass, solar energy, geothermal energy, wind energy, among others.
- Standard Interconnection Agreements
 - Engineering Requirements
 - Customer Qualification (including Tiers) and Fees
- Contents of Agreements
 - Local Code Requirements and Inspections
 - Insurance Requirements
- Manual Disconnect Switch



Rule Structure

- Administrative Requirements
- Net Metering
 - Metering Requirements
 - Accumulation and Offsetting of Credits
 - Year-End Credit Payment
- Renewable Energy Certificates
- Reporting Requirements



Standard Interconnection Agreements

- Engineering Standards
 - IEEE 1547 (2003), IEEE 1547.1 (2005), UL 1741 (2005)
- Customer Qualification
 - Gross Power Rating (GPR) Total AC nameplate generating capacity
 - GPR must not exceed 90% of the customer's utility distribution service rating
- Customer Tiers
 - Tier 1 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 2 MW



Tier 1 Systems

- Systems 10 kW or less
- No Application Fee
- No Interconnection Study Requirement
- No Insurance Requirement
- No Manual Disconnect Switch Requirement



Tier 2 Systems

- Systems greater than 10 kW and less than 100 kW
- Application Fee if approved by Commission
- No Interconnection Study Requirement
- No more than \$1 Million Insurance Requirement
- Manual Disconnect Switch Required at customer cost



Tier 3 Systems

- Systems greater than 100 kW and less than 2 MW
- Application Fee if approved by Commission
- Interconnection Study may be required
- Interconnection Study Charge if approved by Commission
- No more than \$2 Million Insurance Requirement
- Manual Disconnect Switch Required at customer cost



Net Metering

- Installation of bi-directional meter, at no cost to customer
- Each month the customer's bill is determined by netting energy taken off the grid with energy delivered to the grid.
- Excess customer generation at the end of the month is carried over as a kWh credit on the next month's bill.
- Year-End Credit Payment and the COG-1 Tariff
- Customers must pay the applicable customer charge and demand charge.



DSIREinsight

Customer Credits for Monthly Net Excess Generation (NEG) Under Net Metering

www.dsireusa.org / July 2016

DC 1111111 NEG credited at retail rate; credits do not expire NEG credited at retail rate at first, then credits expire or are reduced (e.g., to the avoided cost rate at the end of year) NEG credited at less than retail rate (e.g., avoided cost rate) **NOTE:** The map shows NEG credits under statewide policies for investor-owned utilities (IOUs); other utilities may offer different NEG credit amounts. IOUs in HI, NV. NEG is not compensated MS, and GA have other policies for compensating self-generators. Some IOUs in TX and ID offer net metering, but there is no statewide policy. IOUs in WI differ in their No statewide mandatory net metering rules treatment of NEG.



Customer-owned Renewable Generation

OF FLORID