Net Metering in South Carolina

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July 19, 2015
What is Net Metering?

• Customer generates electricity through renewable resource

• Meter(s) measures energy customer consumes and generates

• Customer pays for net consumption

Net Consumption = Energy Consumed – Energy Generated
Net Metering 1.0

Where are we today?

• 1:1 Rate
• Annual True-Up – Zeroed Out
• Size Limits:
  – 20 kW for Residential
  – 100 kw or contract demand (non-res)
Net Metering 1.0

Where are we today?

• SCE&G
  – 265 Customers

• Duke
  – 165 Customers

• Progress:
  – 3 Customers
PURC – Energy Advisory Council

• September 2010: EAC First Meeting

• February 2012: Black & Veatch Resource Study and ORS Cost Analysis

• November 2013: Draft report filed and open for comments

• January 2014: Final Report filed
EAC Report – Cost to Serve

Cost to Serve versus Customer Bill for a Typical Residential Customer (With and Without Different Quantities of Solar) Excluding Potential Benefits and Costs not Reflected in Current Utility Rate Design

A. Typical Residential Customer Profile, no Solar Installed
- Cost to Serve Customer: $1,620
- Customer Bill: $1,620
- Utility Variable Costs: 37%
- Utility Fixed Costs: 63%

B. Typical Residential Customer Profile, with Small Solar Installation
- Cost to Serve Customer: $1,321
- Customer Bill: $871
- Utility Variable Costs: 300
- Utility Fixed Costs: $1,021
- Energy Charges (volumetric): $749
- Basic Facilities Charge (fixed): $122

C. Typical Residential Customer Profile, with Larger Solar Installation
- Cost to Serve Customer: $1,021
- Customer Bill: $122
- Represents the potential net benefit or net cost related to the customer’s addition of energy to the grid

Legend:
- Green: Utility Variable Costs
- Red: Utility Fixed Costs
- Blue: Energy Charges (volumetric)
- Dark blue: Basic Facilities Charge (fixed)
Act 236: The Distributed Energy Resource Program Act
Act 236 Overview

- Signed into law June 2, 2014
- Primarily applies to IOUs
- Incent development of distributed energy resources in South Carolina
What does Act 236 do?

• Three separate parts:
  – Net Metering
  – Distributed Energy Resource Programs
  – 3rd Party Leasing

• Reporting
  – Cost Shifting, Net Metering, DER Programs, Leasing
Net Metering
Net Metering

What does Act 236 require?

• New Net Metering Rates

• Establish the methodology to calculate costs and benefits

• Annual True-Up – Pay at Avoided Cost
Net Metering

What does Act 236 require?

• Size Limits:
  – 20 kW for Residential
  – 1,000 kW or contract demand (non-res)

• Can’t offset non-volumetric charges (BFC or demand charges)
Net Metering - Settlement

- Central Electric Power Cooperative
- Electric Cooperatives of South Carolina
- Frank Knapp
- Nucor Steel-South Carolina
- Solbridge Energy
- South Carolina Coastal Conservation League
- South Carolina Solar Business Alliance
- Southern Alliance for Clean Energy
- Sustainable Energy Solutions
- The Alliance for Solar Choice
- South Carolina Electric & Gas Company
- Duke Energy Carolinas
- Duke Energy Progress
- SC Office of Regulatory Staff
- Sierra Club*
- South Carolina Energy Users Committee*
- Wal-Mart Stores East, LP and Sam's East, Incorporated*
Net Metering - Settlement

- Maintain 1:1 Rate
- Value of DER via Methodology
- Incentives through DER Program
Methodology - Utilities

• Value of DER will be calculated
• If the Value is less than retail rates, DER Program will fund incentive
Distributed Energy Resource Programs
Components of DERP

- 2% of Utility’s 5-year retail peak demand
  - 1% Utility Scale – 1-10 MW
  - 1% Customer Scale – less than 1 MW
  - ¼ of this has to be less than 20 kW
Customer Scale

3 options:
• Net metering
• Incentives
  – Bill Credit Agreements (per kWh)
  – Rebates (up-front)
• Community/Shared Solar
During Annual Fuel Review

- Avoided Costs collected in purchased power expense of fuel.
- Incentives (DER and NEM) will be collected under the caps.
  - Residential - $1 per month
  - Commercial - $10 per month
  - Industrial - $100 per month
3rd Party Leasing