

# Evolution of Net Metering

Interstate Renewable Energy Council

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Solar ABCs



# Evolution of Net Metering Rates ?

- **Problem**

- Net metering exists in 42 states throughout the country. This tariff mechanism has been identified by the Solar Alliance as one of the four pillars to building a successful renewable energy industry within a state. However, recent initiatives in some states have begun looking at new tariff designs which may one day replace net metering. For example, the California Public Utilities Commission issued resolution E-4137, essentially a “feed-in” tariff, which ordered Pacific Gas and Electric and Southern California Edison to offer 10, 15, and 20 year contracts to buy the power of small renewable generators (up to 1.5 MW) at time-differentiated market-based prices. And in Connecticut the provisions of Docket 03-07-02RE10, a revision to the Net Metering tariffs, is intended to improve tracking and bill, the financial incentives, the final payout, and the annual banking period for PV projects.

- **Proposed Solution**

- A study will be performed which compares the impact of these new tariff structures with existing model net metering tariffs.



# New Title ?

- “Policy Alternatives for Valuing On-site Solar PV Generation ”
  - Focus on the value of solar energy from the customer’s perspective
  - Recognize that the value of on-site solar is entirely a function of state policy choices
  - Alternatives are not an evolution of NEM as much as different ways of impacting the value of on-site solar generation
  - Basic approach: (1) identify policy alternatives, (2) provide examples, (2) discuss their pros and cons



# Policy Alternatives

- (1) NEM coupled with retail rate structures
- (2) Wholesale contracts: *examples...*
  - Tariff buy/sell arrangements
  - Feed-in tariffs
  - PURPA contracts
  - Competitive solicitations
- (3) Incentive programs: *examples...*
  - Fixed-price REC offerings
  - Competitive REC offerings
  - Performance-based incentives
  - Capacity buy-down programs



# Pros and Cons

- Compensation level
- Certainty of receiving compensation
- Regulatory requirements
- Taxability of compensation
- Insurance requirements
- Administrative requirements



# Benefits to Stakeholders

- PV has a unique ability to provide on-site energy directly to end-use customers
- By providing energy on-site, PV provides value to on-site customer, incumbent utility, and other ratepayers
- States have adopted a variety of programs that aim to compensate customers for the value of on-site generation.
- These programs have advantages and disadvantages from the customer-perspective that are not well understood.
- By better understanding these pros and cons policy-makers and DG advocates can better adopt state-level programs to meet the needs of energy customers.



# Wholesale Contracts

- Tariff buy/sell arrangements
  - Net sales – Duke Energy Rider SCG
  - Full buy/sell – Duke Energy Rider PP-N
- Feed-in Tariffs
  - **California AB 1969 FiTs** – 10, 15 or 20 year contracts based on CPUC's market price referent (MPR)
  - **Gainesville Regional Utilities** - contract starts at \$0.32/kWh or \$0.26/kWh in 2009/10 and decreases over time
  - Other states and Utilities are looking into a FiT include Hawaii, Washington, LADWP, Consumers Energy (Michigan)
- Competitive Solicitations
  - APS?
- PURPA Contracts



# Incentive Programs

- Fixed-price REC offerings
  - **Customer Solar PV Program** – New Mexico's PNM will purchase RECs from customers who install small solar PV systems at \$0.13/kWh, commercial systems can soon get \$0.15/kWh, up to one MW
  - **TVA Green Power Switch Generation Partners Program** - TVA purchases output at \$0.15 - \$0.20/kWh for a minimum 10 year contract
- Competitive REC offerings
  - **NC GreenPower** - Payment arrangements for most renewable energy RECs are available by submitting proposals for consideration in an open-bid process. The program also has a fixed price offer for smaller systems.



# Incentive Programs (cont.)

- Performance-based incentives and capacity buy-down programs
  - **Xcel Energy's Solar\*Rewards Program** - \$2.00-per-watt rebate and a REC payment of up to \$1.50 per watt
  - **California CSI** – Expected Performance-Based Buydown for Systems under 50 kW: \$2.50/W AC for residential and commercial systems; \$3.25/W AC for government entities and nonprofits. Performance-Based Incentives (PBI) for Systems 50 kW and larger: \$0.39/kWh for first five years for taxable entities; \$0.50/kWh for first five years for government entities and nonprofits

