



Coalition Proposal for Interim Methodology, and Additional Rate Options and Pilots

New York Department of Public Service Case 15-E-0751

August 4, 2016

Baseline Features of Joint Proposal for Interim Methodology

- New system of monetary net metering credit values applied to net excess generation
 - Generation consumed on-site, netted over billing period(s), is valued at retail rate
 - Give customers the option of choosing a fully two-way rate with separate utility account, in which case all generation would be valued at DER rider rate
- Default for new projects with significant net exports (CDG/RNM)
 - Not applicable to mass market but opt-in is allowed for mass market and other categories of projects
 - Consistent with proposal for grandfathering/continuation
 - Projects where this is the default may opt into other rate options or pilots available to them
- Simple flat proposal for CDG and other opt-in residential/non-demand-billed applications works best for non-dispatchable technologies
 - Ensures short-term feasibility and understandability
 - Provides appropriate levels of certainty for customers and developers
 - Optional rates and tariffs can properly expand applicability to other technologies
- RNM and C&I (demand-billed) applications use time-varying credits for energy, capacity, and delivery
 - Time-varying credits for energy/capacity are same as current rates, new delivery credits reflect coincident peak benefits
 - Allows proper application to broad array of DER technologies
 - Need technology-specific values for environmental and public health benefits
- Fixed components of credit value should apply for 30 years of project life
 - CCSA fully fixed price option would also fix energy supply component, in exchange for step down of compensation

Calculation of Credit Values and BCA Framework

- For CDG and other applications, use full production profile of resources to calculate long-term value streams
 - Convert into levelized \$/kWh
 - Apply to net excess generation during relevant netting period
 - Updated every five years to apply to new projects
- For RNM and C&I applications, need to construct time-varying and technology-neutral delivery value credits
 - Environmental and public health values must be calculated by technology
- We support inclusion of net public health benefits for conventional pollutants in tariff value stack
 - For SO_2 and NO_x , EPA social values minus allowance prices
- Other elements of BCA Handbook calculations need to be scrutinized

Creating Credit Value Stack: Applicable to Distributed Generation Projects

Stack Component	CDG and Opt-In Residential Applications	RNM and Opt-In C&I Applications
	Netting period based on customer's rate structure (default of monthly netting)	Netting period same as existing TVR periods
Retail Electricity Supply Credit	Relevant portion of residential retail rate	Relevant portion of time-varying C&I retail rate
Delivery Value Credit	Flat per-kWh value by technology	Time-varying and technology neutral
Public Value Credit	Flat per-kWh value by technology for both: • Incremental energy and capacity value • Environmental and public health value	Flat per-kWh by technology for: • Environmental and public health value
Market Transition Credit Mechanism – if necessary	Flat per-kWh value greater than or equal to zero	Flat per-kWh value greater than or equal to zero

Creating Credit Value Stack for Core Proposal: Applicable to Specific Projects

Stack Component	CDG and Opt-In Residential Applications	RNM and Opt-In C&I Applications
Additional Locational Value Credit	Flat per-kWh value for high-value areas	Time-varying per-kWh value for high-value areas
Additional Peak-Demand Reduction Credit	Flat per-kWh value by project type	Captured by TVR credit structure
Other Ancillary Services Credit	Flat per-kWh value by project type	Flat per-kWh value by project type

Correspondence between Benefit Categories and Core Credit Stack Components

Benefit Component	CDG and Opt-In Residential Applications	RNM and Opt-In C&I Applications
Avoided Energy (LBMP)	Flat Retail Electricity Supply Credit may not account for full value for peak coincidence; remainder accounted for in Public Value Credit.	Time-Varying Retail Electricity Supply Credit accounts for full value.
Avoided Gen. Capacity (ICAP)		
Avoided Wholesale Ancillary Services		
Avoided Trans. Congestion and Losses		
Avoided Trans. Capacity	Delivery Value Credit	Delivery Value Credit
Avoided Distr. Capacity, O&M, and Losses		
Net Avoided Social Cost of Carbon	Public Value Credit	Public Value Credit
Net Avoided Public Health Costs		

Correspondence between Benefit Categories and Additional Credit Stack Components

- Credits applicable to specific projects capture values across spectrum for that specific type of project
- Additional Locational Value Credit includes location-specific generation capacity, delivery, and environmental and public health benefits
- Additional Peak-Demand Reduction Credit for projects under simple credit structure
 - Reflects additional avoided capacity and delivery value for certain project types (e.g., west-facing solar) due to higher coincidence with peak based on generation profile or generation agreement in the case of dispatchable technologies
 - Not necessary under time-varying structure for C&I applications
- Other Ancillary Services Credit represents certain distribution-specific benefits

Methodology One: Granular Valuation

- A granular analysis of the grid value of distributed energy resources would require:
 - Developing a counter-factual for future transmission, distribution, energy and capacity investments 'but for' distributed energy resources
 - Calculate the marginal savings from delayed or avoided costs
 - Developing generation profiles for different technologies
 - Convert to flat, amortized /kwh value
 - This is a fairly data-intensive and complicated calculation that could take longer than possible before the end of 2016
- An analysis of the environmental and public health benefits can be simpler and would not be a barrier

Methodology Two: Proxy Valuation

- Could use marginal cost of service studies, other existing resources to extrapolate a proxy value for grid benefits
- An analysis of the environmental and public health benefits can be relatively simple
- May be challenging, but not impossible by the end of the year

Methodology Three: Retail Rate-Based Value

- Monetary credits based on the retail rate with adjustments to address Commission goals for the interim methodology, for example:
 - Locational adder to drive investment in high-value locations
 - Environmental and public health adder for DER that avoid emissions
 - Peak-demand-reduction adder to drive investment in technologies or projects that offset additional peak demand
 - Option of time of use rates at the host meter to create more dynamic and accurate price signals
 - Other adjustments could be made to address interim concerns, such as any revenue shift

Piloting Other Options for Customers

- Opt-in Time-of-Use Rates
 - Need to ensure these rates work for storage
 - Need to define how net metering will apply
- Utility-specific smart home demonstration rates
 - Need to define how net metering will apply
- CCSA Fixed-Value Tariff
- Other optional tariffs
 - Demand response tariff
 - SolarCity/EFCA Smart Home Rate

Urgent Questions to Discuss

- What are the concrete goals for the January 1st interim methodology?
- How do we treat current investments and contracts in distributed energy resource projects?
- What is the real revenue shift caused by distributed energy resources?
- How do we address any revenue shift in a way that is balanced with policy objectives?

Contact

- Mark LeBel, Acadia Center (mlebel@acadiacenter.org)
- Sean Garren, Vote Solar (sean@votesolar.org)
- Rick Umoff, SEIA (rumoff@seia.org)
- Laurel Passera, CCSA (laurelp@communitysolaraccess.org)
- Miles Farmer, NRDC (mfarmer@nrdc.org)
- Evan Dube, SunRun (evand@sunrun.com)