Retail Choice and Net Metering: Issues and Considerations

January 23, 2018

Justin Barnes – EQ Research, LLC NV Governor's Electric Competition Task Force Meeting

Discussion Summary

Retail Choice & NEM Basics

- Supply Choice
- Billing Options
- Overarching Themes
 - Symmetry
 - Clarity
 - Simplicity
- Transactional Issues
 - NEM Billing for Customers
 - Wholesale Side/Supplier Compensation
- AB 405 Nuances



Retail Choice : Supply Choice

Customer Options

- Standard offer or default service
 - Details subject to overall state market design
- Choice of competitive offers from suppliers
 - Likely numerous rate options (e.g., fixed rate, variable, % discount, and more).
 - Offers vary based on market segment
- Distribution utility continues to perform distribution functions (e.g., interconnection, possibly meter reading)

Retail Choice Basics: Billing

- Billing Options
 - Utility consolidated billing
 - Retail supplier consolidated billing
 - Separate billing
- All require the transmission of data between suppliers and utilities.
- Choice of which occurs driven by law, supplier's preference, and/or consumer preference.

Symmetry

- NEM rules apply equally to utilities & suppliers
 - Net monthly charges, non-discrimination.
- Accounting reflects the service being provided (i.e., supplier "funds" energy credits)
- WHY SYMMETRY?
 - Level playing field
 - Less complicated for customers
 - Rules should not impede switching
- Supplier Obligation is a policy question

- Arguably required by AB 405 ("fair credit for

Supplier Obligation: States

- New Jersey
 - NEM clearly required for all suppliers
- Pennsylvania
 - Supplier option
 - Ambiguous rules formerly gave rise to different utility practices
- Ohio
 - Supplier option
 - Utility obligation to net distribution charges for shopping customers now in question

Clarity

- Important to clearly define all obligations to avoid confusion and billing mistakes.
 - Suppliers understand meaning of billing data they receive (e.g., how is negative usage reflected) via EDI transactions.
 - Wholesale settlements (i.e., cost to suppliers) aligned with costs/benefits.
 - What happens when a customer switches suppliers? Credit cash out?

Simplicity

- NEM system already works in Nevada
 - Existing NEM customers know what to expect
 - DG providers & utilities know how to educate customers on what to expect
 - Utilities have systems to accomplish the requisite transactions
 - Aligning dozens of retail suppliers on rules could be challenging

No need to reinvent the wheel. Retain as much of the current protocols as possible.

Transactions: Retail

- Clear and consistent standards help avoid billing mistakes
 - Billing (and other) data exchanged via EDI transactions (e.g., metered usage via EDI 867 loop)
 - EDI identifiers must be set up to clearly indicate "negative" usage
 - Must indicate net vs. gross values (e.g., separate imports and exports, single net value)
- Recommendations
 - EDI Manual expressly addresses DG customers (e.g., examples in OH, NJ)
 - Utilities use same practices

Retail NEM Transaction Options

- Utility-Side Netting (NJ, MD, NY)
 - Utility operates the "credit bank"
 - Credits for prior months applied before data supplier receives billing data
 - Simplest method, consistent with what utilities already do.
- Split Netting (IL, D.C.)
 - Each entity processes separately and maintains a separate credit bank
 - Each entity receives full metered data to process bank balance
- Supplier-Side Netting (TX)
 - Reverse of utility-side netting
 - In TX, no netting of distribution charges



Retail NEM Transactions

- Utility side is simple and effectively already in place
 - Separate credit banks at least double the chance of errors
 - Many suppliers = many individual billing systems
 = many more opportunities for error
- Opposing view
 - Suppliers may want "untouched" meter data
 - Does utility-side accommodate unique or advanced rate options or specialized agreements?

Retail NEM: Issues

- Billing miscommunications (NJ)
- Netting distribution charges for shopping customers (PA, CA)
- Utilities "net" usage data even though no supplier obligation exists (PA)
- Billing oddities (MA)
 - Separate supplier billing creates possibility of "stranded" credits.

Wholesale Transactions

- Determines a supplier's cost to serve a net metering customer
 - Lower cost energy to serve load not provided by solar (e.g., less on-peak energy)
 - Lower generation capacity needs based on customer contribution to coincident system peaks
 - Credit for excess customer generation (i.e., excess is "owned" by the retail supplier)
- Critical point for suppliers
 - No regulated cost recovery mechanism
 - Suppliers "eat" NEM costs unless they can realize benefits of NEM customers through lower costs

Wholesale Transaction Nuances

- How are capacity obligations determined?
 - Profiled vs. hourly metered customers? Negative values possible?
- How are hourly energy obligations determined?
 - Solar load profile? (ERCOT)
- How is hourly or monthly excess reflected?
 - Subtracted from hourly positive obligation? To which hours for non-hourly metered customers?

Needs to be aligned with otherwise applicable market rules



day HEO with day after settlement HEO and sends difference to PJM.

AB 405 Nuances: Credit Rate

- How should the declining % of retail rate for monthly credit be addressed?
 - Option #1: Excess kWh reduced by the applicable % before rates are applied.
 - Results in a symmetrical framework
 - Option #2: Reduction applied only to distribution portion of the rate
 - More reflective of cost causation? Consistent with AB 405?
 - Option #3: Reduction applied only to energy portion
 - Reduces supplier risk of net NEM costs through reduced compensation

AB 405 Nuances

- Disclosures Section 11 (I)(4) and equivalents
 - Disclosure must state whether credits for excess electricity are available.
- Not possible if retail suppliers are not required to offer NEM.
- Crediting protocol upon switch of supplier
 Not addressed in current rules or tariffs
- Supplier/Utility Obligations
 - References only to "utility"

Might be changed to "supplier" or equivalent.
 Align obligations with entity providing service



Contact Information

jbarnes@eq-research.com

919-825-3342

EQ Research LLC | www.eq-research.com | info@eq-research.com

Useful Links

<u>New Jersey EDI Manual</u> – provides express guidance on DG billing

<u>First Energy Supplier Manuals</u> – clearly explain how wholesale settlement occurs for energy, and how customer's capacity tag is determined

<u>ERCOT Load Profiles</u> – Solar load profiles (designated as "PV") may be downloaded from here.