



# Retail Choice and Net Metering: Issues and Considerations

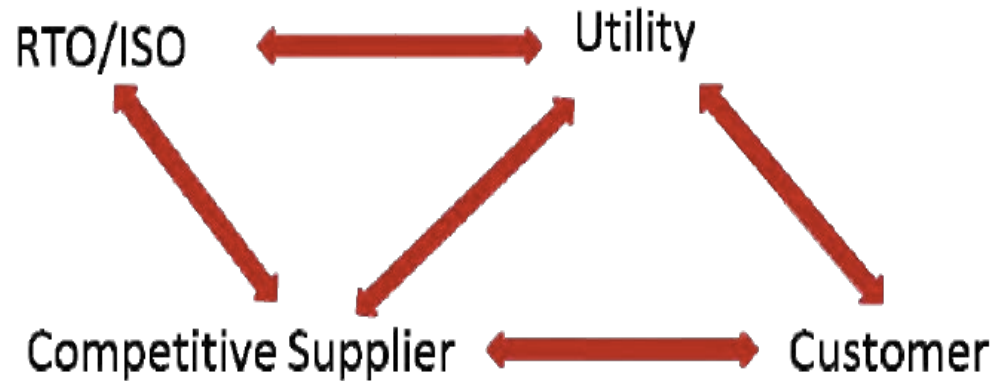
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# Discussion Summary

- 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.

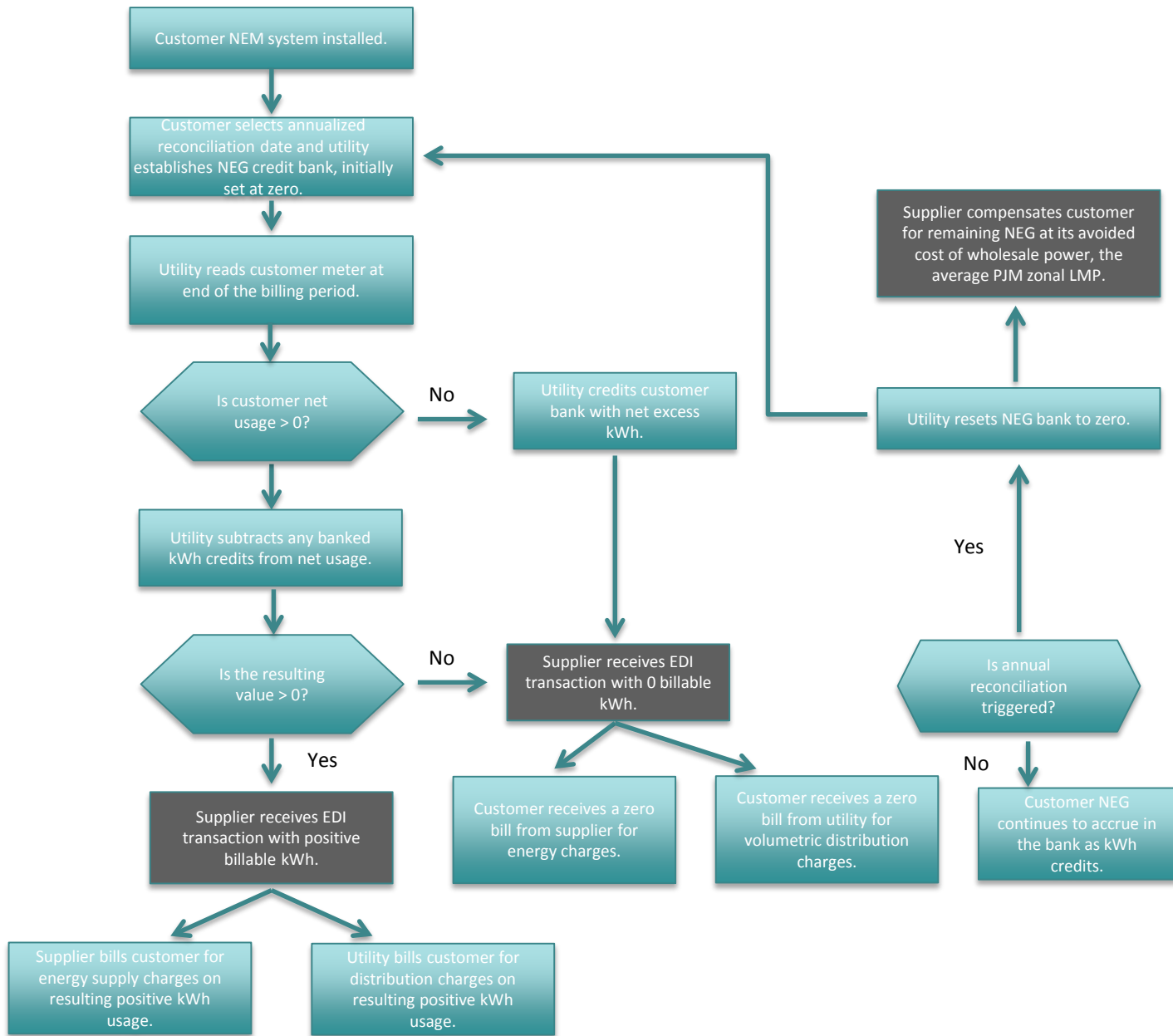


# Transactions: Retail

- 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.

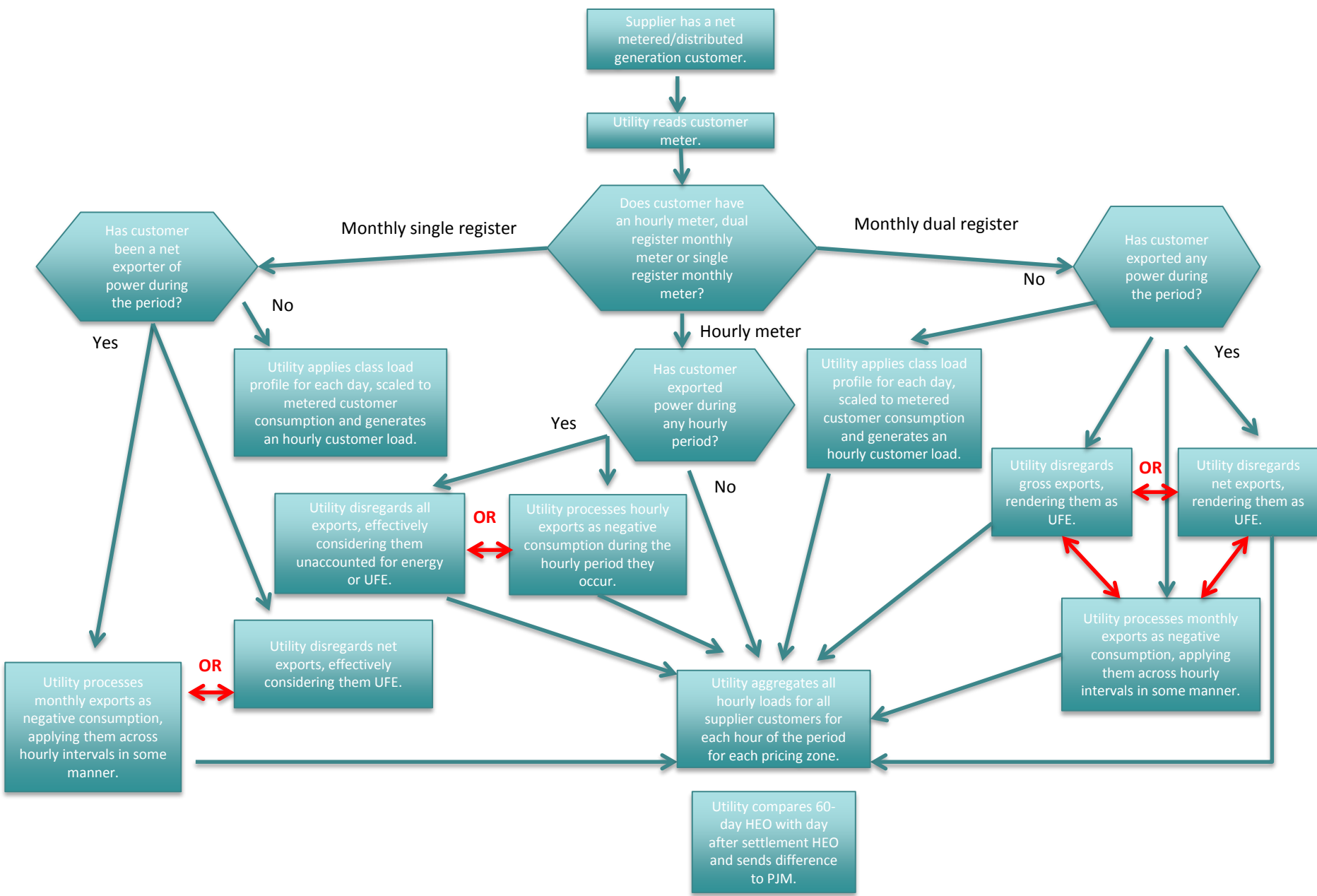
# Wholesale Transactions

- 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**





# 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 (l)(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

# Questions??

## Contact Information

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# Useful Links

New Jersey EDI Manual – provides express guidance on DG billing

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

ERCOT Load Profiles – Solar load profiles (designated as “PV”) may be downloaded from here.