



An Exelon Company

Energy Efficiency and Capacity Auctions

One Utility's Experience

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ComEd

The Portfolio

- ✓ ComEd's extensive portfolio of energy efficiency programs is expected to yield nearly 300 MW of summer demand reduction in 2012
- ✓ This does not include the Central AC Cycling program.
- ✓ Other programs will be excluded either because they do not qualify as EE Resources, the program is too small to effectively measure, or the measures will "age out" prior to the auction

ComEd's Challenge

- ✓ EE Programs are new in Illinois
 - Enabling legislation enacted in August 2007
 - Portfolio developed and filed by November 2007
 - Portfolio approved by ICC in February 2008
 - Programs launched in June 2008
- ✓ No history to work off of
- ✓ PJM process is also new
 - M&V Plan template not developed
 - Process largely borrowed from ISONE

Residential Programs

- ✓ Residential Lighting Program (screw-in cfl's, compact fluorescent table lamps, fluorescent torchiere lamps)
- ✓ Appliance Recycling (refrigerators, freezers, room air conditioners)
- ✓ Central Air Conditioner replacement w/Quality Installation
- ✓ Air Conditioner Diagnostic and Tune-up
- ✓ All-electric Efficiency Upgrade (for existing multifamily housing units with electric space heat)

Non-residential Programs

- ✓ Prescriptive Incentives (Lighting, Motors, HVAC)
- ✓ Custom Incentives (everything else)
- ✓ New Construction

Not Included

✓ Retro-commissioning

- Primarily a behavior-base program, adjusting equipment, correcting controls
- Does not qualify as EE Resource

✓ Small C/I Intro Kit

- One-year program, with screw-base compact fluorescent lamps distributed in May 2009
- Studies suggest these lamps will exceed useful life by June 2012

✓ Single-Family Home Performance and Advanced Lighting Package

- Very small programs, limited demand impacts

Not Included

- ✓ Certain measures from Business programs
 - Screw-base CFLs installed in PY2008
 - Expected to age out prior to delivery year
 - Building controls
 - Not eligible EE measure for PJM

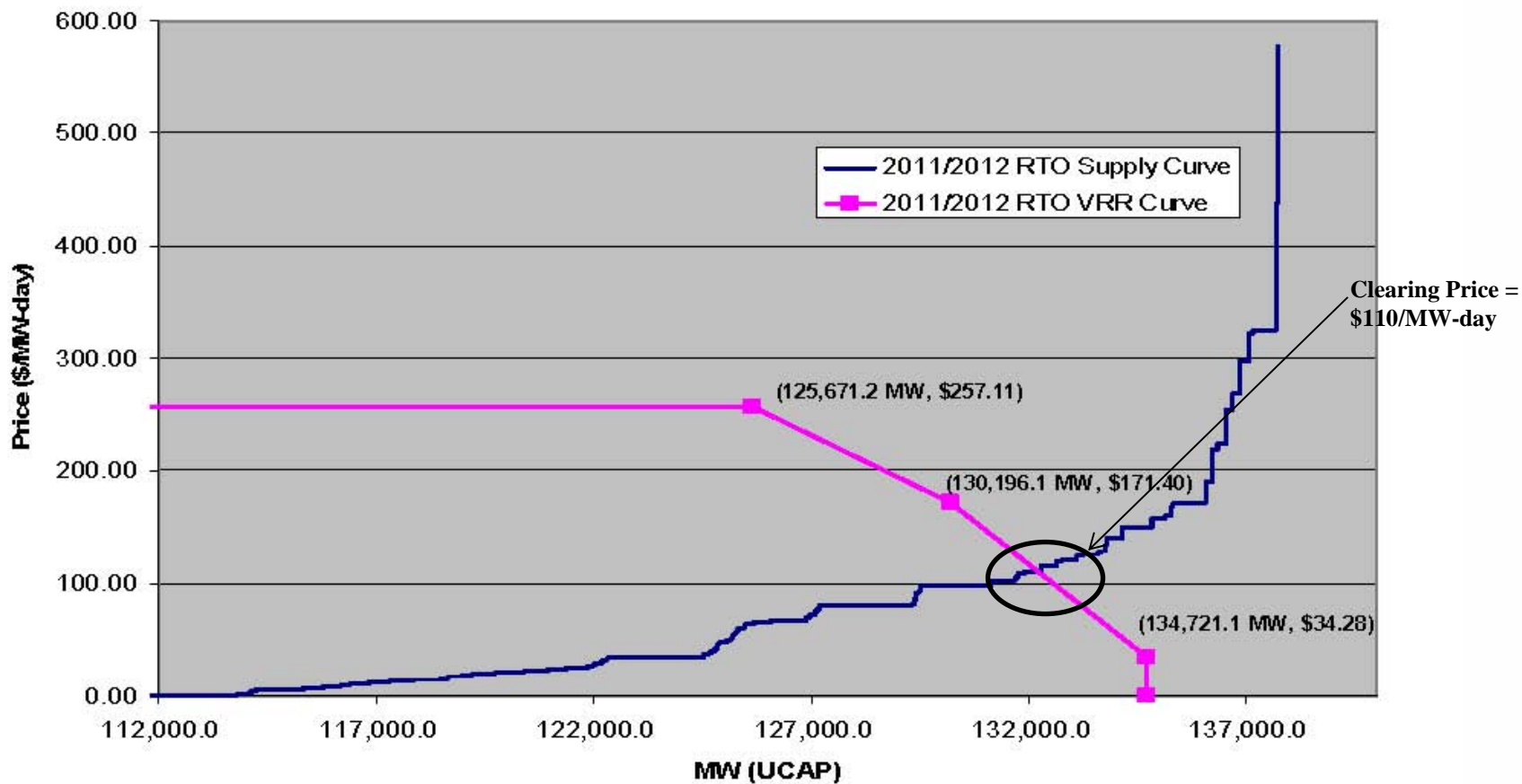
ComEd's Strategy

- ✓ Price-Taker – Offer resources at \$0
- ✓ Start with M&V plans from evaluation contractor
- ✓ Incorporate Operating manuals for savings calculations
- ✓ Fill gaps as needed

The RPM Auction

- ✓ Clearing price is function of several factors
 - How much capacity is offered relative to forecast needs
 - Offer prices
 - Cost Of New Entry (CONE)
 - Transmission and transfer capacity
 - Firm Resources Requirements

2011/2012 Base Residual Auction Clearing



Offering EE into the Auction

- ✓ New with the 2012 Base Residual Auction (BRA), Energy Efficiency Resources may be offered into the RPM auction
- ✓ EE resources installed prior to June 2008 are not eligible
 - They are already included in the 2012 load forecast developed by PJM
- ✓ All resources must show a demand reduction during the PJM EE performance hours (1 pm to 5 pm on weekdays during June through August)
- ✓ Installation of more efficient devices or equipment or implementation of more efficient processes/systems meeting the requirements that exceed building codes, appliance standards, or other relevant standards at the time of installation.
- ✓ Fully implemented at all times during the Delivery Year, without any requirement of notice, dispatch, operator intervention.
 - If dispatchable, it would be a Demand Resource.

Value to ComEd

- ✓ Provides additional revenue stream beginning with 2012 Delivery Year (DY)
- ✓ Provides capacity value to EE in Illinois
 - Statutory goals focus on energy savings only
 - Capacity value enhances potential for Air Conditioning, Thermal Storage, and similar technologies
- ✓ Auction revenue can be used to offset effect of statutory spend screen
 - Starting in 2012, Rider EDA limited to 2.015% of typical bill
 - Energy Efficiency targets continue to increase and accelerate until 2015
 - Alternatively, Spend Screen may be maintained and auction revenue used to reduce Rider EDA charge

Risks Associated with Auction

- ✓ Capacity offer is too high
 - Replacement capacity will need to be procured during Incremental Auction
- ✓ PJM Audit finds capacity resource deficient
 - Can occur independent of ComEd-supplied M&V report
 - Deficiency Charge = daily clearing price * 1.2 for each MW short
- ✓ Capacity offer is too low
 - Can offer extra capacity into Incremental Auctions (if held)
- ✓ M&V plan is not accepted by PJM
 - Because of short timeline, would not be able to resubmit in time for acceptance

Timeline For EE Process

2009

April 15 – Nomination and initial M&V plan due to PJM for 2012 DY

April 20 – Resource streams, quantity and values entered into eRPM

May 4 – Auction opens

May 8 – Auction closes

May 15 – Clearing price posted

Timeline For EE Process (Cont'd)

2010

April – Nomination and initial M&V plan due to PJM for 2013 Auction

May – Updated M&V plan for 2012 DY due to PJM

2011

April – Nomination and initial M&V plan due to PJM for 2014 Auction

May – Updated M&V plans for 2012 and 2013 DY due to PJM

2012

April – Nomination and initial M&V plan due to PJM for 2015 Auction

May – Updated M&V plans for 2013 and 2014 DY due to PJM

May 15 – Final M&V report due to PJM for 2012 DY

Outcome of First Auction

- ✓ ComEd offered 386 MW of capacity into 2012/13 BRA
 - Gross capacity reduction (no free-ridership or spillover adjustment required by PJM)
 - PJM accepted 386 MW
 - Clearing price was \$16.46/MW-day
 - Value to ComEd = \$2.3 million
- ✓ Clearing price and value were significantly less than anticipated
 - Due to significant quantity of Demand Response offered in
 - Steady-state value would be closer to \$30 million

Issues for the First-Timer

- ✓ Very tight timeline for participation
 - Three months to develop comprehensive M&V plan
 - Less than two weeks for M&V plan review and corrections to PJM
 - eRPM modifications to accommodate EE Resources wasn't ready until late April
 - Couldn't set resource offers until May 3 (auction opened May 4)

The Road Ahead

- ✓ Update M&V plans
 - Respond to feedback from initial plan review
 - Update Capacity nominations
 - Investigate Incremental Auctions
- ✓ Work with PJM to accommodate other measures and programs
 - Behavior-based programs with proven performance
 - Retro-commissioning
 - Building Controls
- ✓ Modify portfolio to take advantage of capacity value
 - Incorporate more weather-sensitive measures
 - Evaluate load shifting technologies
- ✓ Update and standardize M&V plan development
- ✓ Participate in Policy processes
 - Measure Life and effect on capacity auctions

Questions?