New Jersey and Maryland Electricity Markets: A Wholesale and Retail Overview

Presentation to the Illinois Commerce Commission
June 23, 2004
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Morgan Stanley
The NJ BGS auction establishes a competitively priced supply for two customer classes: CIEP and FP.

1. Procurement Auction for Large Customers (CIEP – Commercial and Industrial Energy Pricing)
   • Provides fixed capacity price with floating hourly energy price.

2. Procurement Auction for Smaller Customers (FP – Fixed Price)
   • Provides full requirements service at a fixed price to the customer.

The auctions arrive at a “cost to serve”, which is then translated into the prices to individual rate classes.
New Jersey BGS – FP

- BGS-FP is a full requirements product.
  - EDC's total load is divided into "tranches".
  - A tranche for an EDC represents a fixed percentage of the EDC's total BGS-FP Load for a given term.
  - Bidders submit a bid price at which they are willing to supply full requirements supply for a tranche.

<table>
<thead>
<tr>
<th>BGS-FP Number and MW-Measure of Tranches</th>
<th>Number of Tranches Procured</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EDC</strong></td>
<td>FP Peak Load (MW)</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------</td>
</tr>
<tr>
<td>PSEG</td>
<td>8,616 MW</td>
</tr>
<tr>
<td>JCP&amp;L</td>
<td>5,089 MW</td>
</tr>
<tr>
<td>ACECO</td>
<td>2,109 MW</td>
</tr>
<tr>
<td>RECO</td>
<td>375 MW</td>
</tr>
</tbody>
</table>
New Jersey BGS – CIEP

- BGS-CIEP is a full requirements product.
  - A capacity price (in $ per MW-day) is determined through the auction.
  - The energy charge is the hourly PJM real-time energy price and is passed through to the CIEP customers.
  - Transmission and ancillary service prices are charged at rates specified in the Open Access Transmission Tariff (OATT) and by PJM.

<table>
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<tbody>
<tr>
<td>EDC</td>
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<td>PSEG</td>
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</tr>
<tr>
<td>RECO</td>
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</tbody>
</table>
# New Jersey BGS – 2003/2004 Auction Results

## BGS-FP 2003/04 Auction Results

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PSEG</td>
<td>$53.86</td>
<td>$54.79</td>
<td>$55.60</td>
<td>$55.15</td>
</tr>
<tr>
<td>JCP&amp;L</td>
<td>$50.42</td>
<td>$53.25</td>
<td>$55.87</td>
<td>$54.78</td>
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<tr>
<td>ACECO</td>
<td>$52.60</td>
<td>$54.73</td>
<td>$55.29</td>
<td>$55.13</td>
</tr>
<tr>
<td>RECO</td>
<td>$55.57</td>
<td>$55.66</td>
<td>$56.01</td>
<td>$55.97</td>
</tr>
</tbody>
</table>

## BGS-CIEP 2003/04 Auction Results

<table>
<thead>
<tr>
<th>EDC</th>
<th>2003 Closing Prices ($ per MW-day)</th>
<th>2004 Closing Prices ($ per MW-day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSEG</td>
<td>$60.00</td>
<td>$52.01</td>
</tr>
<tr>
<td>JCP&amp;L</td>
<td>$65.25</td>
<td>$54.98</td>
</tr>
<tr>
<td>ACECO</td>
<td>$56.10</td>
<td>$49.90</td>
</tr>
<tr>
<td>RECO</td>
<td>$59.80</td>
<td>$57.96</td>
</tr>
</tbody>
</table>
# New Jersey BGS – Timing

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 1 Application available</td>
<td>11/17/2003</td>
</tr>
<tr>
<td>Statewide minimum and maximum starting charges (prices) announced for CIEP (FP) auction</td>
<td>11/24/2003</td>
</tr>
<tr>
<td>Statewide load cap announced for CIEP auction; FP load caps announced</td>
<td>11/24/2003</td>
</tr>
<tr>
<td>Tranche sizes announced</td>
<td>11/24/2003</td>
</tr>
<tr>
<td>Information Session for Potential Bidders, Philadelphia</td>
<td>12/4/2003</td>
</tr>
<tr>
<td>Part 2 Application available</td>
<td>12/15/2003</td>
</tr>
<tr>
<td>Part 1 Application Deadline</td>
<td>Noon, 12/16/2003</td>
</tr>
<tr>
<td>Part 1 Applications are reviewed</td>
<td>12/16/2003 to 12/19/2003</td>
</tr>
<tr>
<td>Applicants are notified of Part 1 Application Results</td>
<td>12/19/2003</td>
</tr>
<tr>
<td>Part 2 Application Deadline</td>
<td>Noon, 1/9/2004</td>
</tr>
<tr>
<td>Part 2 Applications are reviewed</td>
<td>1/9/2004 to 1/16/2004</td>
</tr>
<tr>
<td>Potential Association issues are reviewed</td>
<td>1/9/2004 to 1/16/2004</td>
</tr>
<tr>
<td>Applicants are notified of Part 2 Application results</td>
<td>1/16/2004</td>
</tr>
<tr>
<td>Tranche Fee is announced</td>
<td>1/22/2004</td>
</tr>
<tr>
<td>Information session for Registered Bidders, Philadelphia</td>
<td>1/22/2004</td>
</tr>
<tr>
<td>Trial auctions for registered bidders</td>
<td>1/27/2004</td>
</tr>
<tr>
<td>Auction Manager informs Registered Bidders of EDC-specific starting prices</td>
<td>1/28/2004</td>
</tr>
<tr>
<td>Auctions start</td>
<td>2/2/2004</td>
</tr>
<tr>
<td>Full Factual Report to the Board from the Auction Manager and CRA</td>
<td>2/11/2004</td>
</tr>
<tr>
<td>Board decision on Auction results</td>
<td>2/11/2004</td>
</tr>
<tr>
<td>Winning suppliers execute BGS Supplier Master Agreements</td>
<td>Within three business days of Board Decision</td>
</tr>
<tr>
<td>Power Flows</td>
<td>6/1/2004</td>
</tr>
</tbody>
</table>
• BGS Auction is a Clock Auction
  - Auction begins at the Auction Managers starting price.

  - In each round, bidders bid for the right to serve one or more tranches of load at the current price. (A tranche is a fixed percentage of an EDC's load.)

  - If at the end of a bidding round, if number of tranches offered is greater than number needed, Auction Manager ticks down the price and bidders resubmit the number of tranches to be supplied at the new price.

  - Auction ends when number of tranches offered equals number of tranches to be procured from the auction.
New Jersey BGS Auction Process – 2

- Exiting
  - If an bidder wishes to exit the auction, bidder must submit an exit price, which serves as their final offer.
  - The exit price must be above current round's price and below or equal to prior round's price.

- Switching
  - Bidder may request to switch between products, tenors and/or EDCs.
New Jersey BGS Auction Features

- Transparent process – everyone sees the prices.
- Administered by an independent third party.
- Strict confidentiality requirements to prevent bidder collusion.
- Products are designed to match utility customer obligations.
- A load cap limits the amount of FP load that a single bidder can serve. The 2004 load cap was approximately 10% of total FP load for each EDC.
- Online auction process through secure website.
- Historical load data available to assist in bid pricing.
- New Jersey BGS posts a retail price calculator on its website at [http://www.bgs-auction.com/bgs.dataroom.asp](http://www.bgs-auction.com/bgs.dataroom.asp) (see “BGS-FP Pricing Spreadsheet”)
- More information available at [www.bgs-auction.com](http://www.bgs-auction.com)
New Jersey BGS – Credit Requirements

- Market participants should have a minimum senior unsecured debt rating of BBB-/Baa3. That is, the market participant should be an investment grade credit. (Allowances have been made for sub-investment grade entities that provide appropriate credit support.)

- Market participants must provide either:
  - Bid bond from an A/A2 rated surety or
  - Irrevocable letter of credit in the favor of the EDCs.

- Market participants must also provide a letter of intent to provide a Guaranty in favor of the EDCs.
All market participants prefer matching accounting treatment for the sale transaction to avoid accounting mismatch. That is, MTM = MTM and accrual = accrual.

The preferred type of accounting treatment for the BGS transaction (MTM or accrual) depends on the other side of the transaction.

- Sellers may execute "hedge transactions" to offset the risk of BGS sales. Since the hedge transactions are subject to MTM accounting treatment, the Sellers may prefer the BGS sale to qualify for MTM treatment, also.
- Buyers resell the purchased energy to its customers, which pay for energy over time (accrued revenues). Buyers prefer accrual accounting treatment.
- Some Sellers also may prefer accrual accounting treatment.
NJ BGS contracts have been structured to qualify as derivatives under FAS 133, which allows Sellers to use MTM accounting.

But the accounting rules allow Buyers to apply for an exemption from using MTM accounting, because the purchase is considered in the normal course of business. This allows Buyers to use accrual accounting for the BGS transaction.

The Maryland BGS did not structure its contract to qualify as a derivative, so Morgan Stanley (and possibly other entities) chose not to participate.
To qualify as derivatives under FAS 133, NJ BGS sales contracts incorporate a "close out provision".

On the closing day of the auction the following parameters are set:
- The expected On-Peak Load per tranche for each EDC.
- The expected Off-Peak Load per tranche for each EDC.
- A table of monthly on-peak forward prices (to be used as the inception price for each month of the supply period).
- A table of monthly historical on-and off-peak energy prices to determine the ratio of off-peak price to on-peak prices.

The close out provision provides a fixed quantity of MWh in the event of a default. A fixed volume is a criteria of the FAS 133 accounting standard that qualifies the BGS auction sale as a derivative contract. MTM accounting is applicable.
The MD RFP process establishes a competitively priced supply for four customer classes:
1. Residential
2. Type I Non-Residential (not demand metered)
3. Type II Non-Residential (demand metered)
4. Type III Non-Residential (large load)
5. Hourly Price Non-Residential (large load)

Provides full requirements service at a fixed price to the customer, except for the Hourly Price class, for which the energy price is determined from settlement prices in the PJM real-time market.

The prices resulting from the RFP may be mapped into additional sub-rate classes.
Maryland RFP – Timing

• The four Maryland utilities conduct separate RFP processes concurrently.
  - Procurement is done in three stages, one each in Dec, Jan and Feb for approximately 50%, 30% and 20% of the total.

• Sequence of Events:
  - Pre-Bid Process takes place four months prior to RFP first round and includes: prebid conference, bidder qualification and availability of historical utility load data.
  - Day 1: Submit bids and post collateral
  - Day 2: Winning bidders announced
  - Day 3: Contracts with winning bidders executed, pending commission approval.
  - Day 5: Commission approval of contracts and execution.
  - Day 14: Submit bids and post collateral for next round
Maryland conducts a multi-round RFP process
  - Bidders submit sealed, binding bids with the price at which they are willing to serve a block of load for the appropriate customer load class being procured in the round.
  - Winning bidders are selected based on price.
  - After the end of the last round of the process, a weighted average price is calculated to serve the customer class, which is then translated into retail rates.
  - A winning bidder is paid at its bid price, not at the weighted average price for the customer class.
Maryland RFP Process – 2

- Exiting
  - A bidder that is selected to serve a block of load and chooses to exit the auction must forfeit its bid collateral.

- Switching
  - There is no provision for switching one’s offer to serve to another customer class after the sealed, binding bids have been submitted.
Maryland RFP Features

- Winning wholesale prices are not revealed. Customer prices are only disclosed after several weeks time.
- Administered by the four utilities independently.
- Strict confidentiality requirements to prevent bidder collusion.
- Products are designed to match utility customer obligations.
- There is no limit to the percentage of load that a single market participant may be awarded to serve.
- Decentralized process with facsimile or electronic (BG&E only) submittal of bid prices.
- Historical load data available to assist in bid pricing.
- More information available at the individual utility websites. Maryland does not have a dedicated site for its RFP process.
Maryland RFP – Accounting Treatment

- Maryland RFP contracts have been structured to *not* qualify as derivatives under FAS 133, which prevents Sellers from using MTM accounting.

- Because of the accounting mismatch and potential earnings volatility that hedging such a transaction would create, bidders such as Morgan Stanley that must use MTM accounting may have chosen not to participate or may have included an adder to its price to account for such risk.

- Functionally restricting the ability of certain market participants to bid in the process may reduce the competitiveness of the Maryland procurement process relative to other procurement process designs.
Maryland RFP – Credit Requirements

- Bidders must be PJM members in good standing.
- Bidders are required to provide appropriate credit information.
- Bidders are required to post Bid Assurance Collateral in the amount of $300,000 per bid.
- A winning bidder may be required to post additional collateral, based on its current credit rating.
- To safeguard against a default by a winning bidder during the term of the contract:
  - All of the other winning bidders supplying the utility customer class are given the option to “step up” its current load quantity to include a percentage of the defaulting winning bidder’s obligation.
  - In the event of a shortfall in the step-up offered to fulfill the defaulting party’s obligation, the utility will purchase energy directly from the PJM market.
Retail Markets – New Jersey and Maryland
Generation Ownership

New Jersey:
- Divestiture was not mandated.
- GPU (now a FirstEnergy company) utilities JCP&L and ACECO and Conectiv divested of generation to various counterparties.
- PSE&G transferred nearly 10,200 MW of generation to PSEG Power, LLC, an unregulated power generation affiliate.

Maryland:
- Divestiture was not mandated.
- Allegheny Energy BG&E transferred generation to an unregulated affiliate.
- BG&E transferred generation to Constellation Generation, unregulated affiliate.
- Delmarva transferred generation to an unregulated affiliate and sold generation.
- PEPCO sold generation to Mirant.
Utility Service Obligation

New Jersey:
- All customers are served either through the BGS Auction or by a competitive supplier.
- The utilities have no Provider of Last Resort (POLR) obligation going forward.

Maryland:
- All customers are served either through the RFP Process or by a competitive supplier.
- The utilities have no Provider of Last Resort (POLR) obligation going forward after the current POLR obligation expires.
Energy Assistance Programs

New Jersey Energy Assistance Programs:

- Participation in the federal Low Income Energy Assistance Program (LIHEAP).

- Winter Termination Program:
  - Prevents certain residential customers from having electric service disconnected during the winter months.

- Lifeline Program:
  - Lifeline offers $225 to persons who meet the PAAD eligibility requirements or who receive SSI. This includes utility customers as well as tenants whose utility bills are included in their rent.

Maryland Energy Assistance Programs:

- Participation in the federal LIHEAP program.

- MEAP distributes funds for gas, oil, electricity and other home heating and cooling bills to low and limited-income individuals and families.

- Electric Universal Service Program (EUSP) helps pay current and past due electricity bills.
Competitive Supplier Rules

- Alternative retail electric supplier license is required.

- Alternative retail electric suppliers must provide security (cash, letter of credit or surety bond).

- Must abide by anti-slamming rules and observe do-not-call list.

- PJM membership and PJM registration as a Load Serving Entity (LSE) are required.
## Percent of Load Switched – New Jersey

### CIEP SWITCHING

<table>
<thead>
<tr>
<th></th>
<th>ACCOUNTS (1)</th>
<th>LOAD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Switching</td>
</tr>
<tr>
<td>Conectiv</td>
<td>54</td>
<td>38</td>
</tr>
<tr>
<td>JCP&amp;L</td>
<td>490</td>
<td>317</td>
</tr>
<tr>
<td>PSE&amp;G</td>
<td>1131</td>
<td>625</td>
</tr>
<tr>
<td>Rockland</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>Statewide</td>
<td>1696</td>
<td>990</td>
</tr>
</tbody>
</table>

as of May 31, 2004
New Jersey:
- Retail rate calculator is published on the NJ BPU website at http://www.bgs-auction.com/bgs.dataroom.asp (see “BGS-FP Pricing Spreadsheet”).

Maryland:
- Wholesale supply for the four wholesale classes is mapped into retail rates for the individual rate classes.
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