

## **REDACTED VERSION**

## **Prepared For:**

New Jersey Board of Public Utilities
Two Gateway Center
Newark, New Jersey

Post-Auction Report on the New Jersey Utilities' Basic Generation Service Auction Processes: February 2006

Docket EO05040317

## Prepared By:

**CRA** International

200 Clarendon Street

Boston Massachusetts 02116

Date: March 27, 2006

CRA Project No. D06394-00

# **DISCLAIMER**

CRA International and its authors make no representation or warranty as to the accuracy or completeness of the material contained in this document and shall have, and accept, no liability for any statements, opinions, information or matters (expressed or implied) arising out of, contained in or derived from this document or any omissions from this document, or any other written or oral communication transmitted or made available to any other party in relation to the subject matter of this document.

# **TABLE OF CONTENTS**

1.	EXECUTIVE SUMMARY	. 1
2.	INTRODUCTION	. 6
3.	SUMMARY OF THE BGS AUCTIONS	. 9
4.	ASSESSMENT OF THE BGS AUCTIONS	13
5.	COMPARISON OF BIDDER PARTICIPATION ACROSS YEARS	19
6.	ANALYSIS OF BGS AUCTION PRICES	23
7.	RECOMMENDATIONS TO IMPROVE FUTURE AUCTIONS	33
ΑP	PENDIX A: PRODUCT PRICES AND TRANCHES BY ROUND	
AΡ	PENDIX B: POST-AUCTION CHECKLISTS	

# FIGURES AND TABLES

Figure 1 – Winning Bidders Over the Years 2002-2006	20
Figure 2 – Bidders' Winnings	21
Figure 3 – PJM West Day-Ahead Index Prices	29
Figure 4 – Prices and Active Tranches – FP Auction	36
Figure 5 – Prices and Active Tranches – CIEP Auction	37
Table 1 – Summary of BGS-FP Auction	10
Table 2 – Summary of BGS-CIEP Auction	12
Table 3 – Initial Auction Statistics*	19
Table 4 – Number of Winning Bidders by Year	19
Table 5 – Auction Prices and FMPIs	23
Table 6 – PJM West Day-Ahead Index Prices, Statistics By Year	31

## 1. EXECUTIVE SUMMARY

This is the final report of CRA International (CRA) to the New Jersey Board of Public Utilities (the BPU, or the Board) regarding our review and oversight of the New Jersey electric utilities' Basic Generation Service (BGS) procurement auction process completed in February 2006 for the BGS supply period beginning June 1, 2006 (Docket EO05040317).

#### 1.1. BACKGROUND ON BGS

## **1.1.1. February 2002 Auction:**

Procurement for BGS Supply Period from August 2002 through July 2003

CRA was first retained by the New Jersey Board of Public Utilities in September 2001 to oversee and monitor the auction process proposed by the four electric distribution companies (EDCs) in New Jersey¹ to procure supplies for Basic Generation Service in Year 4 of the Transition Period (August 2002 through July 2003) as part of the state's electricity restructuring. Among other tasks, CRA was responsible for: providing advice on BGS proposals; providing advice on BGS auction processes, designs, and rules; monitoring the marketing of the auction; reviewing the data and information exchange; monitoring efforts to educate bidders on the auction process and rules; monitoring the administration of the auction; advising on the final auction results; and, providing a report on the auction results with recommendations to improve future auctions.

The BGS auction concluded in February 2002 and upon the completion of bidding CRA recommended to the Board that it certify the auction results, which it subsequently did. This first BGS auction generally was regarded as a success.

#### 1.1.2. February 2003 Auctions:

Procurement for BGS Supply Period Beginning August 1, 2003

In September 2002, CRA was retained again by the BPU to provide similar assistance with regard to auction processes proposed by the EDCs<sup>2</sup> for Year 1 and Year 2 of the Post-Transition Period. While the process outlined in the EDCs' *Proposal for Basic Generation Service Beyond July 31, 2003* was similar in many respects to the first BGS auction, there were some significant new variations, including the linking of auction results to consumer prices and the separation of small customers from large customers in two distinct BGS

<sup>&</sup>lt;sup>1</sup> The four EDCs were Public Service Electric and Gas Company (PSE&G), GPU Energy, Atlantic City Electric Company (ACECO) d/b/a Conectiv Power Delivery, and Rockland Electric Company (RECO).

<sup>&</sup>lt;sup>2</sup> The same four EDCs as for the prior year, except that GPU Energy was now known as Jersey Central Power & Light Company (JCP&L).

auctions: the Fixed Price (FP) auction for residential and smaller commercial customers and the Hourly Energy Price (HEP) auction for larger commercial and industrial customers. (In 2004 the latter auction's name was changed to the Commercial and Industrial Energy Price (CIEP) auction.) Also, JCP&L proposed to implement a "retail pilot program" and to hold a separate bidding mechanism to procure supplies of "green energy." In addition, RECO proposed to utilize an RFP procurement process for about ten percent of its load (specifically, load in its Central and Western Divisions served through the NYISO rather than through PJM).

The BGS auctions for the supply period beginning August 1, 2003 concluded on February 4, 2003. Upon the completion of bidding CRA recommended to the Board that it certify the auction results, which it subsequently did.

# 1.1.3. February 2004 Auctions:

Procurement for BGS Supply Period Beginning June 1, 2004

In its advisory role leading up to the February 2004 auctions, CRA reviewed BGS proposals with respect to Board objectives, provided advice to the Board in the process of approving the BGS processes and rules, and reviewed the BGS auction processes for reasonableness of administration, guidelines for setting the starting prices and auction volumes, the default or contingency plan, and the proposed BGS contracts.

In its monitoring role of the FP and CIEP auctions, CRA monitored the marketing and information efforts; advised the BPU on the significance of the indicative bids, the auction starting prices, and the tranche sizes; monitored the administration of the auctions, including speed of rounds and price tick down for each round; monitored the bidding for possible anticompetitive behavior; and advised the BPU on whether the final auction results reflected the approved auction processes. CRA again submitted a report that assessed the auction results and provided recommendations to improve future auctions.

Once again, the Board approved the auction results, consistent with CRA's recommendation.

### 1.1.4. February 2005 Auctions:

Procurement for BGS Supply Period Beginning June 1, 2005

CRA's role leading up to and during the February 2005 auctions was similar to that of the previous year. In addition to the tasks performed and issues analyzed during the previous year, the 2005 process included consideration of some new matters, such as revised rules and procedures for setting price decrements.

The 2005 auction results were approved by the Board, as recommended by CRA.

# 1.2. CRA'S ROLE IN FEBRUARY 2006 PROCUREMENT FOR BGS SUPPLY PERIOD BEGINNING JUNE 1, 2006

The auction processes and CRA's role were essentially the same in 2006 as they were in 2005. However, some details of the auction design and rules did change in 2006.

First, in the FP auction, a statewide load cap was introduced, in addition to the four product-specific caps. The introduction of the statewide cap, coupled with increases for the four product-specific caps (compared to the product-specific caps in place for the February 2005 FP auction), provided bidders with more flexibility to shift bids among the four products offered in the auction.

Second, the CIEP products were changed so that rather than setting the Default Service Supply Availability Charge (DSSAC) prior to the auction and having bidders bid on the "capacity charge" for each EDC, this year capacity charges were fixed and bidders bid on the DSSAC they would require to supply BGS CIEP tranches for each EDC.

Third, to decrease the likelihood that tentatively winning bidders in the FP auction would be required to hold open positions while they waited for the CIEP auction to close, this year's CIEP auction started one business day earlier than the FP auction. As well, it was clarified this year that the Board could meet to approve or reject the results of each auction separately, if it so wished.

#### 1.3. CRA'S FINDINGS AND RECOMMENDATIONS

NERA, the EDCs, the Board, Board Staff, and CRA, as well as many bidders, had four years of experience entering this year's BGS auction process, so it is not surprising that the 2006 auctions ran smoothly and without any major incidents from a procedural and mechanical viewpoint. As we have each year, we offer several reminders and suggestions to ensure the continued success of the process.

- Policy issues regarding matters that will affect bidders in the auction (e.g., treatment of renewable attributes of NUG contacts) should be addressed and resolved as early as possible in the auction process to avoid creating uncertainties that will adversely affect the auction.
- Schedules and deadlines for providing data and information should be adhered to as
  faithfully as possible, and when delays do occur, notice should be provided immediately
  as to when the missing data and information will be made available. We observed very
  few delays this year.
- Rigorous stress testing of the auction software should continue to occur well before the
  auctions are to commence and advance contingency planning should continue to occur
  well before the auction to better ensure that bidders are fully and clearly informed in the
  event of abnormal occurrences, such as auction software failures.

The number of EDC representatives who will have access to sensitive auction
information should be minimized to the extent possible to reduce the real or perceived
likelihood of either intentional or inadvertent improper exchanges of information.
Furthermore, to provide greater certainty on this point, the confidentiality agreements
signed by EDC representatives could be amended to contain a specific certification that
they will not exchange sensitive information across affiliates, through a corporate parent,
etc.

While it was not needed this year, the Board should retain the ability to meet to approve
or reject the results of each auction separately, in case one auction takes significantly
longer to close than the other.

Beyond procedural and mechanical details, this year's auctions differed from previous years' auctions in several important aspects.

• For the first time, volume reductions were required and a BGS auction procured less than 100 percent of the tranches sought.



• Winning prices were substantially higher in this year's auction as compared to previous years. For example, in the FP auction the increase in the 2006 winning price over the 2005 winning price for each EDC ranged between 53 percent and 57 percent. The effects on consumer retail rates were muted by the three-year term averaging, with increases in the 12 percent to 14 percent range for typical customers (as defined by the EDCs). The price increases in the New Jersey auction were not isolated phenomena as significant price increases also were seen in wholesale electricity markets, natural gas markets, and energy procurement processes in other jurisdictions. It also should be noted, though, that consumers are not "locked in" to these prices; as market conditions change over time, competitive third-party suppliers may be able to offer prices that will be attractive in comparison to BGS rates and more customer switching may occur.

We continue to believe that an auction mechanism is the best means to ensure the lowest possible prices for New Jersey ratepayers, but as this year demonstrates, when broader market fundamentals push energy prices higher, auction prices and consumer rates will rise as well. Any bidding mechanism that is designed to achieve the lowest possible prices for consumers in the marketplace will not insulate consumers from changes in market prices.

We expect that a relatively informal survey of past participants and other prospective bidders could be undertaken fairly quickly and inexpensively, and so we recommend that the Board consider implementing some means of gathering feedback on the factors that led potential bidders to decide whether or not to

participate in the BGS auctions. Such a survey may provide useful information that could make future auctions more attractive to bidders.

## 2. INTRODUCTION

The New Jersey Board of Public Utilities retained CRA International to review and oversee the New Jersey Electric Utilities' Basic Generation Service auction processes with bidding taking place in February 2006 (Docket No. EO05040317). This report is CRA's post-auction assessment of those BGS auction processes.

Following the successful BGS auctions held in each of the years 2002 through 2005, the Board's Decision and Order of May 5, 2005, directed the EDCs to file by July 1, 2005, BGS procurement proposals for periods beginning June 1, 2006. The proposals filed by the EDCs were very similar to those filed for the BGS auctions held in February 2005.

As noted above, the EDCs did propose changes such as introducing a statewide load cap for the FP auction (in addition to the product-specific load caps), changing the bid product for the CIEP auction, and staggering the starting dates of the two auctions. As well, the EDCs proposed to eliminate the pass-through of PJM transmission rate changes to CIEP bidders.

As in previous years, opportunities for interested parties to conduct discovery and to file comments were provided through the July-September period. Legislative Board hearings were held on September 7, 2005.

CRA reviewed submissions and comments and provided input to Staff as it prepared its submissions and comments.

On October 12, 2005, the Board approved the joint proposals subject to certain modifications and directed the EDCs to submit compliance filings by October 26, 2005.

On November 10, 2005, the Board approved the EDCs' joint proposals for two descending clock auctions to secure electricity for periods beginning June 1, 2006.<sup>3</sup> The Board directed the EDCs to procure approximately one-third of the BGS-FP load for the three-year period from June 1, 2006 through May 31, 2009. The Board also directed the EDCs to procure one-hundred percent of the BGS-CIEP load for the one-year period from June 1, 2006 through May 31, 2007. The Board approved the EDCs' proposed changes for the FP statewide load cap, the change in the pricing structure for CIEP products, and the staggering of the opening dates of the two auctions. The Board rejected the EDCs' proposal to eliminate the pass-through of PJM transmission rate changes to CIEP bidders. The Board also decided to discontinue the pilot program in which three tranches of BGS load that would otherwise have been included in JCP&L's FP product are withheld from the auction and served through JCP&L's must-run non-utility generation (NUG) contracts and priced at the winning auction price for JCP&L's FP tranches.

Page 6

<sup>&</sup>lt;sup>3</sup> This approval process is memorialized in the Board Order document of December 8, 2005.

The BGS-CIEP auction began on the morning of Friday, February 3, 2006 and the BGS-FP auction began on the morning of Monday, February 6, 2006. The BGS-CIEP auction closed after 15 rounds on Monday, February 6, 2006. The BGS-FP auction closed on Tuesday, February 7, 2006, after 17 rounds. The Board certified the results of both auctions at its Board Agenda Meeting of February 9, 2006. In both cases the Commissioners voted unanimously for approval, except for one Commissioner who had just recently joined the Board and chose to abstain from voting.

CRA's efforts in assisting the Board through this process are summarized as follows:

- Reviewing submissions from the EDCs and other parties and advising the Board as to whether the proposed energy procurement processes likely would achieve the Board's objectives.
- Preparing memoranda and engaging in discussions with Staff on various specific issues.
- Monitoring the marketing and communications efforts of the EDCs and their Auction Manager (NERA — National Economic Research Associates), including attending bidder information sessions.
- Reviewing draft auction rules, protocols, and other documents, and providing input and advice to the Auction Manager.
- Assisting Staff with its review of indicative bids, starting prices, and auction volumes.
- Participating in and monitoring trial auctions.
- Monitoring the FP and CIEP auctions and, after the conclusion of bidding, advising the Board as to whether the final results reflect the approved auction processes and generated an outcome that is consistent with competitive bidding, market determined prices, and efficient allocation of the rights and obligations to supply BGS-FP and BGS-CIEP loads.

CRA's final task is the preparation of this post-auction report, which is organized as follows.

- Section 1 is the Executive Summary of the report.
- Section 2 is the Introduction.
- Section 3 summarizes the auctions in table format, highlighting key indicators and measures.
- Section 4 provides our assessment of the BGS auctions, focusing on key issues and questions.
- Section 5 compares bidder participation across the five years in which BGS auctions have been held.

- Section 6 discusses our analysis of BGS auction prices.
- Section 7 contains our recommendations for improving future auctions.
- Appendix A includes charts showing round-by-round product prices and the number of active tranches statewide.
- Appendix B includes our post-auction checklists that were delivered to the BPU at the close of the auction.

# 3. SUMMARY OF THE BGS AUCTIONS

Below we describe both auctions. As well, Appendix A provides graphical representations of the two auctions' round-by-round progress.

#### 3.1. THE FP AUCTION

The FP auction began with the opening of round 1 at 8:45 a.m. on Monday, February 6, 2006. It concluded with the close of round 17 at 2:25 p.m. on Tuesday, February 7, 2006.

The pre-auction eligibility of the registered bidders was tranches. The tranche target for the auction was 54 tranches, yielding a pre-auction eligibility ratio of eligibility ratio of eligibility.

No volume adjustment was made during the auction, so the pre-auction tranche target and EDC-specific load caps were unchanged for the auction.

At the February 9, 2006, Board Agenda Meeting, the Commissioners voted unanimously to accept the results of the FP auction, except for one Commissioner who had just recently joined the Board and chose to abstain from voting.

Table 1 below shows pertinent indicators and measures for the FP auction.

Table 1 - Summary of BGS-FP Auction

Product:	PSE&G	JCP&L	ACECO	RECO	Total
BGS-FP peak load share (MW)	2882.3	1926.4	652.6	96.6	5557.9
Total tranches needed	29	17	7	1	54
Starting tranche target in auction	29	17	7	1	54
Final tranche target in auction	29	17	7	1	54
Tranche size (% of BGS-FP load)*	1.18%	2.27%	4.55%	25.00%	
Tranche size (approximate MW)	99.39	113.32	93.23	96.58	
Starting load cap (# tranches)	14	8	3	1	20**
Final load cap (# tranches)	14	8	3	1	20**
Quantity procured (# tranches)	29	17	7	1	54
Quantity procured (% BGS-FP load)	100%	100%	100%	100%	100%
# Winning bidders					10
Maximum tranches sold to any one bidder					
Minimum and maximum starting prices prior to indicative bids (¢/kWh)					Min. = 11.500 Max. = 15.500
Starting price at start of auction (¢/kWh)***					
Price paid to winning bidders (¢/kWh)****	10.251	10.044	10.399	11.114	10.221

<sup>\*</sup>Note that approximately two-thirds of the FP load for each delivery period is served with supplies procured in previous years' auctions. For example, for the delivery period June 1, 2006 through May 31, 2007, one-third of the needed supply was procured in the February 2004 auction, one-third was procured in the February 2005 auction, and one-third was procured in this year's auction.

<sup>\*\*</sup>This is the statewide load cap, not the sum of the individual load caps.

\*\*\*Price shown in "Total" column is the average across the EDCs weighted by each EDC's "Starting tranche target in auction".

<sup>\*\*\*\*</sup>Price shown in "Total" column is the average across the EDCs weighted by each EDC's "Final tranche target in auction".

### 3.2. THE CIEP AUCTION

The CIEP auction began with the opening of round 1 at 8:30 a.m. on Friday, February 3, 2006. It concluded with the close of round 15 at 12:15 p.m. on Monday, February 6, 2006.

The pre-auction eligibility of the registered bidders was tranches. The tranche target for the auction was 118 tranches, yielding a pre-auction eligibility ratio of eligibility ratio of eligibility.

In accordance with the auction rules, the auction volume was reduced twice during the auction to ensure the competitiveness of the bidding. At the end of round 1, the auction volume was reduced from 118 tranches to 106 tranches. The second reduction occurred at the end of round 6, when the volume was reduced from 106 tranches to 76 tranches. The statewide load cap remained unchanged throughout the auction. The 42 tranches removed from the auction will be served by the EDCs according to the contingency plans included in their filings with the Board.

At the February 9, 2006, Board Agenda Meeting, the Commissioners voted unanimously to accept the results of the CIEP auction, except for one Commissioner who had just recently joined the Board and chose to abstain from voting.

Table 2 below shows pertinent indicators and measures for the CIEP auction.

Table 2 – Summary of BGS-CIEP Auction

Product:	PSE&G	JCP&L	ACECO	RECO	Total
BGS-CIEP peak load share (MW)	1829.8	779.3	315.8	35.7	2960.6
Total tranches needed	73	31	13	1	118
Starting tranche target in auction	73	31	13	1	118
Final tranche target in auction	46	20	9	1	76
Tranche size (% of BGS-CIEP load)	1.37%	3.23%	7.69%	100.00%	
Tranche size (approximate MW)	25.07	25.14	24.29	35.70	
Starting load cap (# tranches)					40*
Final load cap (# tranches)					40*
Quantity procured (# tranches)	46	20	9	0	75
Quantity procured (% BGS-CIEP load)	63%	65%	69%	0%	63%
# Winning bidders					3
Maximum tranches sold to any one bidder					
Minimum and maximum starting charges prior to indicative bids (\$/MWh)					Min. = 0.4500 Max. = 0.8500
Starting charge at start of auction (\$/MWh)**					
Charge paid to winning bidders (\$/MWh)***	0.4981	0.4787	0.3876	N/A	0.4797

<sup>\*</sup>This is the statewide load cap.

\*\*Charge shown in "Total" column is the average across the EDCs weighted by each EDC's "Starting tranche target

in auction".

\*\*\*Charge shown in "Total" column is the average across the EDCs weighted by each EDC's "Final tranche target in auction".

## 4. ASSESSMENT OF THE BGS AUCTIONS

This section of our report provides our assessment of the BGS FP and CIEP auctions, focusing on key issues and questions that arose during the auctions. This section is structured along the lines of the post-auction checklists (included in this report as Appendix B) that we delivered to the BPU on February 8, 2006, to facilitate the Board's review of the auction. The section provides additional commentary and observations not included in those more abbreviated post-auction checklists.

# 4.1. CRA'S RECOMMENDATION AS TO WHETHER THE BOARD SHOULD CERTIFY THE AUCTION RESULTS

CRA recommended that the Board certify the results of both BGS auctions. As we indicated in our post-auction checklists, we believe that the design, implementation, and outcome of the BGS auction processes achieved the objectives established by the Board.

While prices in the FP auction were significantly higher than in previous years and the CIEP auction failed to procure all needed supplies, we believe these facts were reflections of the state of the broader energy marketplace, rather than being indications of problems with the auctions themselves.

On February 9, 2006, the Board certified the BGS auction results based on input from Board Staff, CRA, and NERA (the EDCs' Auction Manager).

4.2. DID BIDDERS HAVE SUFFICIENT INFORMATION IN A TIMELY MANNER TO PREPARE FOR THE AUCTIONS? WAS THE INFORMATION GENERALLY PROVIDED TO BIDDERS IN ACCORDANCE WITH THE PUBLISHED TIMETABLE? WAS THE TIMETABLE UPDATED APPROPRIATELY AS NEEDED?

Yes. Generally, the schedule allowed bidders sufficient time to prepare for the auction. There were no serious issues raised by bidders with regard to the amount of time available to prepare for the auction.

Occasionally the electronic data room update for the BGS auction Web site was not complete on the scheduled date (the 17<sup>th</sup> of each month). However, any posting delays were brief. We have no reason to believe that these delays had any material impact on bidder behavior or on the outcome of the auctions. In case of delay, a Web site posting was made to note that a delay had occurred and to provide an estimate of when the expected information would be provided.

The Board Order clarifying issues related to ownership of the EDCs' non-utility generation (NUG) contract renewable energy credits (RECs) did not come until February 3, 2006, just as bidding was beginning in the CIEP auction and one business day before the opening of the FP auction. As noted in previous years' reports, it is always preferable to resolve uncertainties or provide clarifications as far in advance of the commencement of bidding as

possible; however, we do not believe that the timing of the Board Order had any material negative impact on bidders or had any material negative influence on bidders' participation in the auctions.

4.3. WERE THERE ANY ISSUES AND QUESTIONS LEFT UNRESOLVED PRIOR TO THE AUCTIONS THAT CREATED MATERIAL UNCERTAINTY FOR BIDDERS?

Not of material significance. In previous auctions, bidders for three-year FP products faced uncertainty related to the fact that in the future the Board may consider redefinition of the dividing line between FP and CIEP customers. In the Board's Order of December 8, 2005, it reduced uncertainly related to this factor by specifying that the dividing line would move to 1000 kW beginning June 1, 2007.

4.4. FROM WHAT CRA COULD OBSERVE, WERE THERE ANY PROCEDURAL PROBLEMS OR ERRORS WITH THE AUCTIONS, INCLUDING THE ELECTRONIC BIDDING PROCESS, THE BACK-UP BIDDING PROCESS, AND COMMUNICATIONS BETWEEN BIDDERS AND THE AUCTION MANAGER?

The Auction Manager informed us that due to a software issue in the CIEP auction, one bidder – who by then was ineligible to bid actively – lost access to price information on some products in the bid report. The bidder had access to the price information in the common report. The problem subsequently was rectified. We do not believe that this incident had any material impact on the auction. We are unaware of any other procedural problems or errors.

4.5. FROM WHAT CRA COULD OBSERVE, WERE PROTOCOLS FOR COMMUNICATION BETWEEN BIDDERS AND THE AUCTION MANAGER ADHERED TO?

As far as we could tell, the protocols were adhered to. We were able to view all messages from the Auction Manager that were posted to the bidding Web sites. We did not have the opportunity to directly monitor other communications between the bidders and the Auction Manager team.

4.6. FROM WHAT CRA COULD OBSERVE, DID ANY HARDWARE OR SOFTWARE PROBLEMS OR ERRORS OCCUR, EITHER WITH THE AUCTION SYSTEM OR WITH ITS ASSOCIATED COMMUNICATIONS SYSTEMS?

Please see 4.4 above.

4.7. WERE THERE ANY UNANTICIPATED DELAYS DURING THE AUCTIONS?

No. There were two delays in bidding in the CIEP auction when the volume reductions were implemented, but these delays were appropriate and are anticipated in the protocols regarding volume reductions.

4.8. DID UNANTICIPATED DELAYS APPEAR TO ADVERSELY AFFECT THE BIDDING IN THE AUCTIONS? WHAT ADVERSE EFFECTS DID CRA DIRECTLY OBSERVE AND HOW DID THEY RELATE TO THE UNANTICIPATED DELAY?

Please see 4.7 above.

4.9. WERE APPROPRIATE DATA BACK-UP PROCEDURES PLANNED AND CARRIED OUT?

We were informed by the Auction Manager that data back-up procedures were carried out consistently in accordance with the pre-established protocol. Due to the layout of the Auction Manager's site, the procedures used for back-up, and the fact that the auction servers were in a remote location, we did not have the opportunity to monitor the back-up procedures directly.

4.10. WERE ANY SECURITY BREACHES OBSERVED WITH THE AUCTION PROCESS?

We did not observe any security beaches in either auction process, nor were we informed of any events that one might consider a potential security breach.

4.11. FROM WHAT CRA COULD OBSERVE, WERE PROTOCOLS FOLLOWED FOR COMMUNICATIONS AMONG THE EDCS, NERA, BPU STAFF, THE BOARD (IF NECESSARY), AND CRA DURING THE AUCTIONS?

As in prior years, NERA developed formal communications protocols covering information exchanges among NERA, the EDCs, the Board, Board Staff, CRA, prospective bidders, and the media. Regular reminders were sent regarding what types of information could, and could not, be shared with whom. From what we observed, there were no breaches in the communications protocols.

**4.12.** FROM WHAT **CRA** COULD OBSERVE, WERE THE PROTOCOLS FOLLOWED FOR DECISIONS REGARDING CHANGES IN AUCTION PARAMETERS (E.G., VOLUME, LOAD CAPS, BID DECREMENTS)?

Yes.

As noted previously, two volume reductions occurred in the CIEP auction. There were no adjustments to the volume in the FP auction. The decisions to make or not make adjustments to the volumes in the two auctions were made according to precise guidelines that had been established prior to the auctions. CRA reviewed the volume adjustments prior to their being revealed to bidders to ensure conformity with these guidelines.

The Auction Manager did exercise her discretion on a few occasions to deviate from the bid decrement algorithm in order to manage the pace of the auction, but such discretion is allowed for in the auction rules and protocols. We are unaware of any bidder concerns or complaints with regard to this matter. The Auction Manager conferred with Board Staff and CRA prior to implementing the overrides of the bid decrement formula.

4.13. WERE THE CALCULATIONS (E.G., FOR BID DECREMENTS OR BIDDER ELIGIBILITY)
PRODUCED BY THE AUCTION SOFTWARE DOUBLE-CHECKED OR REPRODUCED OFFLINE BY THE AUCTION MANAGER?

The Auction Manager informed us that these calculations were done.

4.14. WAS THERE EVIDENCE OF CONFUSION OR MISUNDERSTANDING ON THE PART OF BIDDERS THAT DELAYED OR IMPAIRED THE AUCTIONS?

No, none of which we are aware.

4.15. FROM WHAT CRA COULD OBSERVE, WERE THE COMMUNICATIONS BETWEEN THE AUCTION MANAGER AND BIDDERS TIMELY AND EFFECTIVE?

Yes, although we did not have the opportunity to directly monitor all communications between the bidders and the Auction Manager team.

4.16. WAS THERE EVIDENCE THAT BIDDERS FELT UNDULY RUSHED DURING THE PROCESS?

No. On the second day of the FP auction, several bidders used round extensions. The Auction Manager adjusted the schedule to provide bidders with more time in each round. We are unaware of any other requests for additional time or any complaints from bidders regarding the schedule.

**4.17.** WERE THERE ANY COMPLAINTS FROM BIDDERS ABOUT THE PROCESS THAT **CRA** BELIEVED WERE LEGITIMATE?

We are unaware of any bidder complaints.

**4.18.** WERE THE AUCTIONS CARRIED OUT IN AN ACCEPTABLY FAIR AND TRANSPARENT MANNER?

Yes. In particular, the rules appeared to be applied uniformly to all bidders.

4.19. WAS THERE EVIDENCE OF NON-PRODUCTIVE "GAMING" ON THE APRT OF BIDDERS?

Not that we could discern. Bidders tended to reduce the number of blocks bid in an orderly fashion in response to falling prices and to shift the focus of their bidding from product to product as relative prices changed throughout the auction, all of which is consistent with straightforward bidding, effective price discovery, and efficient allocation of tranches.

**4.20.** WAS THERE ANY EVIDENCE OF COLLUSION OR IMPROPER COORDINATION AMONG BIDDERS?

Not that we could discern. Bidders responded to changes in relative product prices from round to round consistent with competitive behavior.

4.21. WAS THERE ANY EVIDENCE OF A BREAKDOWN IN COMPETITION IN THE AUCTIONS?

Not that we could discern. Both auctions began with reasonably strong eligibility ratios (suggesting the presence of sufficient competition), and both auctions began with many bidders of similar size, making it unlikely that any one bidder would hold enough tranches to control an auction's outcome.

When bidding activity dropped significantly in the CIEP auction, volume reductions were implemented to ensure that the bidding for the remaining tranches would indeed be competitive.

Bidders actively arbitraged among the multiple products available in the auctions in response to changes in relative product prices, as one would expect in a competitive market.

4.22. WAS INFORMATION MADE PUBLIC APPROPRIATELY? FROM WHAT CRA COULD OBSERVE, WAS SENSITIVE INFORMATION TREATED APPROPRIATELY?

From what we could observe, auction information was treated with appropriate sensitivity.

4.23. Do the auctions appear to have generated results that are consistent with competitive bidding, market-determined prices, and efficient allocation of the BGS load?

Yes, the bidding appeared to be competitive, price arbitrage across the products occurred, and the winning bidders won tranches because losing bidders were not willing and able to accept prices as low as the winning bidders. This suggests the tranches were allocated to the bidders with the highest value of supplying BGS load (and therefore willing and able to accept the lowest prices).

4.24. WERE THERE FACTORS EXOGENOUS TO THE AUCTIONS (E.G., CHANGES IN MARKET ENVIRONMENT) THAT MATERIALLY AFFECTED THE AUCTIONS IN UNANTICIPATED WAYS?

We do not believe so.

# **4.25.** ARE THERE ANY CONCERNS WITH THE AUCTIONS' OUTCOMES WITH REGARD TO ANY SPECIFIC **EDC(s)**?

No, although the volume reductions in the CIEP auction do mean that each EDC will need to turn to its contingency plan to supply some portion of its BGS CIEP load. We understand that the EDCs have examined this issue and that they believe they have workable plans to address the situation. The fact that the single RECO tranche in the CIEP auction never received any bids means that an alternate method must be found for determining the DSSAC value for RECO. The Board approved Staff's suggestion that this value be set equal to the highest of the auction-determined DSSAC levels (\$0.4981/MWh for PSE&G), which we believe was a reasonable approach to the issue.

## 5. COMPARISON OF BIDDER PARTICIPATION ACROSS YEARS

The 2006 FP and CIEP auctions featured fewer bidders and lower initial eligibility ratios<sup>4</sup> as compared to the previous three years, as depicted in Table 3.

Table 3 - Initial Auction Statistics\*

	FP Au	uction	CIEP A	uction**
Year	Number of Bidders	Initial Eligibility Ratio	Number of Bidders	Initial Eligibility Ratio
2003				
2004				
2005				
2006				

<sup>\*</sup>In 2002 there was only one auction, rather than separate FP and CIEP auctions. The 2002 auction featured bidders and an initial eligibility ratio of

However, the number of winning bidders has not changed a great deal from year to year, as depicted in Table 4. Since the 2003 and 2004 FP auctions featured both one-year and three-year products, while the 2005 and 2006 FP auctions offered only three-year products and hence approximately half the number of tranches as compared to 2003 and 2004, one would expect that the number of winning FP bidders in the later two years might be lower than in the earlier two years. As for the CIEP auction, since more than one-third of this year's CIEP tranches were removed from the auction through volume reductions, it is not surprising that the number of CIEP winning bidders is lower this year than in past years.

Table 4 - Number of Winning Bidders by Year

Year	FP Auction	CIEP Auction	Across Both Auctions*
2002	N/A	N/A	15
2003	12	8	17
2004	10	6	14
2005	7	6	11
2006	10	3	12

<sup>\*</sup>The value in this column may be less than the sum of the values in the FP Auction and CIEP Auction columns because some bidders may have won tranches in both auctions.

<sup>\*\*</sup> In 2003 the CIEP auction was known as the HEP auction.

<sup>&</sup>lt;sup>4</sup> The initial eligibility ratio is equal to the sum of all bidders' initial eligibility levels divided by the number of tranches available in the auction. An initial eligibility ratio of 3.00, for example, can be thought of in general terms as having three bidders bidding for each tranche at the beginning of the auction.

Of this year's twelve winning bidders, two are first-time winners, while ten have won in one or more past years. Of this latter ten, six have been winners for several consecutive years, whereas four have not been among the winning group for one or two years until this year. Figure 1 illustrates the pattern of winning bidders over the years.

Figure 1 – Winning Bidders Over the Years 2002-2006

Bidder	2002	2003	2004	2005	2006
Allegheny					
Amerada					
Aquila					
BP Energy					
Conectiv					
Coned					
Constellation					
Coral					
Dominion					
DTE					
Duke					
Edison Mission					
Energy America					
FirstEnergy					
FPL					
J. Aron					
Mieco					
J.P. Morgan					
Morgan Stanley					
NRG					
PPL					
PSEG Energy					
Reliant					
Select					
Sempra					
Tractebel					
TXU					
Williams					
WPS					

Winning Bidder of at least one tranche in at least one auction

Figure 2 depicts the changes in individual bidders' winnings over the five years of BGS auctions. (Not depicted in the figure are bidders who have participated in at least one auction but who have never won any tranches.) The figure demonstrates the wide variety in bidder experiences over the five years. Some bidders have won tranches in all five years, while some have participated each year but have not always been among the winners, and others have not participated in all years. Some bidders who were winners of large numbers of tranches in 2002 have won smaller numbers in the subsequent years; others have followed the opposite trend. Some energy companies who fell into financial difficulties in 2002 did not participate in later auctions, but these departures have been offset to some extent by the entry of other bidders, including a growing number of players from the financial sector, as opposed to traditional electricity generating companies.

# Figure 2 – Bidders' Winnings

[Figure redacted.]



# 6. ANALYSIS OF BGS AUCTION PRICES

This section of the report analyzes the forward market price indexes and closing prices for the BGS auctions. This topic is especially important this year because of the sharp increase in this year's auction prices and other market prices. Unless noted otherwise, for this year's BGS auction prices, the focus is on the BGS-FP auction prices as these lend themselves to a richer analysis. A short section below discusses the BGS-CIEP auction charges.

Table 5 below reports the Forward Market Price Index (FMPI) (as calculated in the November prior to the auction in question) and final auction price for each auction product for the most recent BGS-FP auction (held February 2006), and for the BGS auctions held in prior years.<sup>5</sup>

Table 5 - Auction Prices and FMPIs

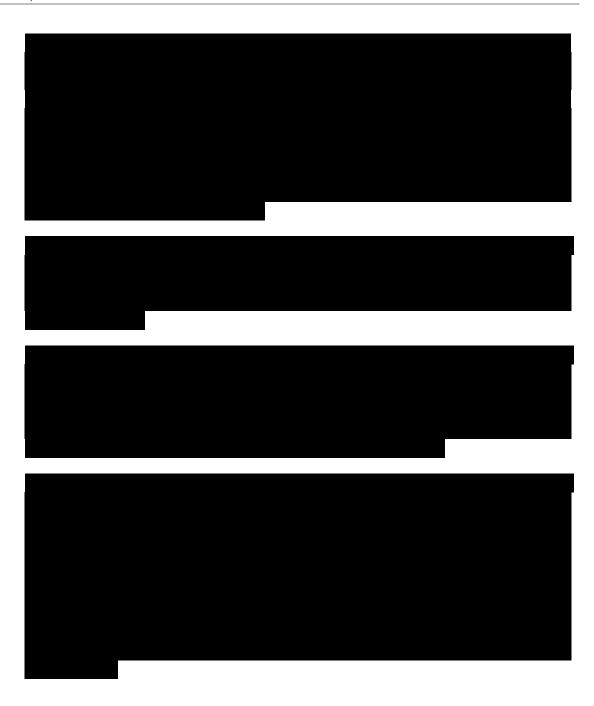
AUCTION PERIOD AND	PRICE*	PSE&G	JCP&L	ACECO	RECO	
FMPIs (\$/MWh)	FMPIs (\$/MWh)					
2002 BGS Auction (12-M	onth Product)					
2003 BGS-FP Auction	10-Month Product					
2003 BGS-FF Auction	34-Month Product					
2004 BGS-FP Auction	12-Month Product					
2004 BGS-FF Auction	36-Month Product					
2005 BGS-FP Auction (3	6-Month Product)					
2006 BGS-FP Auction (3	6-Month Product)					
Final Auction Prices (\$/	MWh)					
2002 BGS Auction (12-M	onth Product)	51.12	48.65	51.17	58.19	
2003 BGS-FP Auction	10-Month Product	53.86	50.42	52.60	55.57	
2003 BGS-FF Auction	34-Month Product	55.60	55.87	55.29	56.01	
2004 BGS-FP Auction	12-Month Product	54.79	53.25	54.73	55.66	
2004 BGS-FF Auction	36-Month Product	55.15	54.78	55.13	55.97	
2005 BGS-FP Auction (3	6-Month Product)	65.41	65.70	66.48	71.79	
2006 BGS-FP Auction (3	6-Month Product)	102.51	100.44	103.99	111.14	
Auction Price Less FMF	PI, Divided by FMPI					
2002 BGS Auction (12-M	onth Product)					
2003 BGS-FP Auction	10-Month Product					
2003 BGS-FP Auction	34-Month Product					
2004 BGS-FP Auction	12-Month Product					
2004 BGS-FF AUCTION	36-Month Product					
2005 BGS-FP Auction (3	2005 BGS-FP Auction (36-Month Product)					
2006 BGS-FP Auction (3	6-Month Product)					

<sup>\*</sup>The auction prices generally are specified in ø/kWh, but here we convert them to \$/MWh for ease of comparison with the FMPIs.

<sup>&</sup>lt;sup>5</sup> FMPIs are not relevant for the BGS-CIEP auction, in which bidders bid on a "capacity charge" in previous years and on the DSSAC in this year's auction.

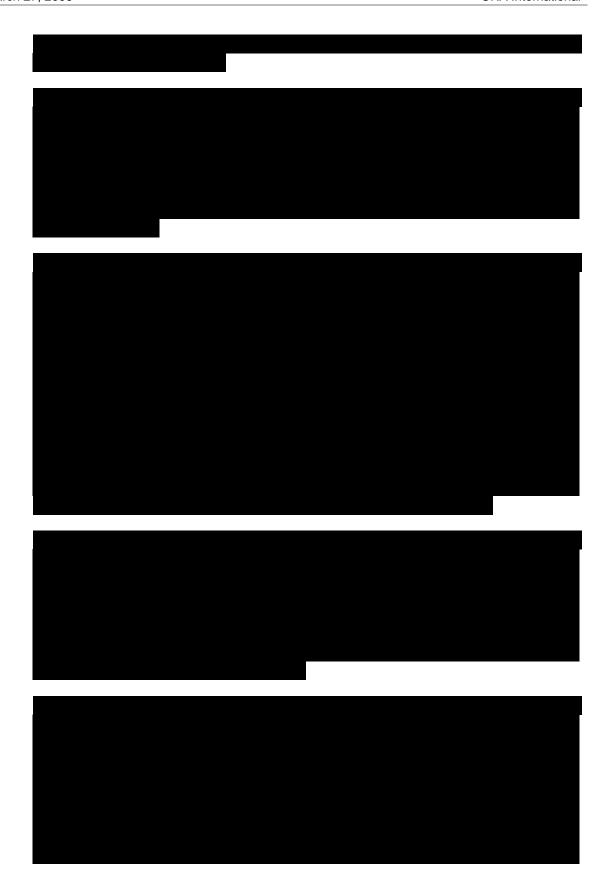
# 6.1. FORWARD MARKET PRICE INDEXES (FMPIS)





# 6.2. FMPIs AND BGS-FP AUCTION PRICES

	-		
8			
0			
9			





## 6.3. BGS-CIEP Auction Charges

## 6.3.1. Previous CIEP Auctions

The BGS-HEP auction in 2003 and the BGS-CIEP auctions in 2004 and 2005 were characterized as "capacity auctions" in that bidders were asked to bid on "a capacity charge component." More precisely, winning BGS-CIEP suppliers received:

- 1. The PJM zonal real-time locational marginal price (LMP) for the supplier's share of BGS-CIEP load (energy).
- 2. The EDC-specific network transmission rate applied to the supplier's share of the BGS-CIEP transmission obligation.
- 3. An ancillary service payment rate, pre-specified for each EDC, that includes PJM-administrative costs and that is applied to the supplier's share of BGS-CIEP load (energy).

4. The default supply service availability charge (DSSAC) that is applied to the energy used by all CIEP customers whether or not these customers are taking BGS. Note, however, that for the 2005 CIEP auction, the Board ordered that the DSSAC be funded through existing retail margin accounts maintained by each EDC.

 The EDC-specific closing charge in the BGS-CIEP auction, referred to as the "capacity charge" in \$/MW-day, which is applied to the supplier's share of the BGS-CIEP capacity obligation.

To the extent that components (1)-(4) do not adequately capture the risk-reward tradeoffs facing bidders that are unrelated to capacity, bids will reflect more than just the capacity charge in component (5).



Closing charges in the 2004 BGS-CIEP auction ranged from \$49/MW-day to \$58/MW-day across the four EDCs, and between \$20/MW-day and \$40/MW-day in the 2005 BGS-CIEP auction.

. These improved prices may be attributable to a variety of factors, including: the \$1/MWh increase in the cost of ancillary services in the CIEP tariffs approved by the Board for the 2005 auction; generally stable and low prices in PJM capacity markets; and ever-increasing bidder confidence as they gain experience with the product and the process.

#### 6.3.2. The 2006 CIEP Auction

A change was made to the CIEP products and pricing structure for the 2006 auction. Rather than fixing DSSAC levels and having bidders bid on a "capacity charge" as was done in the previous three CIEP auctions, for this year's auction the capacity charges were fixed prior to the auction (\$30/MW-day in the summer months of June through September and \$5/MW-day in all remaining months) and bidders bid on the DSSAC level.

As discussed earlier in this report, due to insufficient levels of bidding, the CIEP auction volume was reduced twice during the auction and only 76 of the initial 118 tranches remained available for bidding in the auction's final round. Because no bidder ever placed a bid on RECO's single CIEP tranche, only 75 tranches were awarded through the auction.

Because of the change in product structure, this year's auction-determined DSSAC charges cannot be directly compared to the "capacity charges" determined in prior auctions.

#### 6.4. Comparison of BGS Auction Prices and PJM Market Prices

As in past reports, we compare BGS auction prices from the 2002 through 2006 auctions with PJM market prices, keeping in mind that the products and market environments for the five auctions were quite different and that the relationship between auction prices and market prices would change as a result.<sup>10</sup>

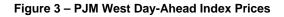
We compare the BGS-FP auction prices to prices in the PJM West day-ahead market because this market provides the best summary measure of the daily price of energy in PJM. The transactions in this market are for a fixed number of megawatts delivered at PJM West buses the next day for either the sixteen peak hours of the day or the eight off-peak hours of the day. This market is very liquid, the price is not linked to a specific hour of the day, and unlike forward prices, the product is comparable from day-to-day. Figure 3 shows the PJM West day-ahead prices for peak and off-peak deliveries from the beginning of 2001 through the end of 2005. 12

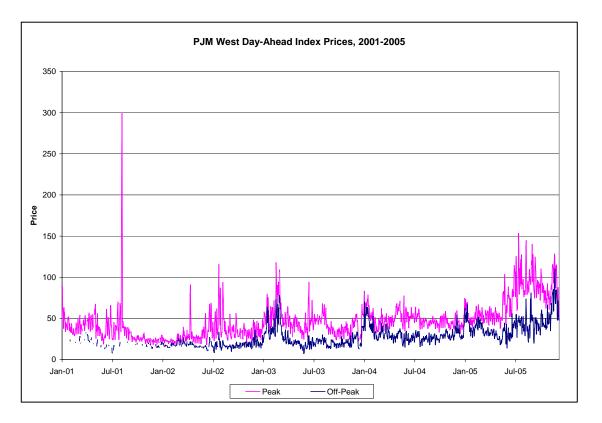
As can be seen in the chart, and as discussed previously, there was a sharp run up in PJM prices – both on-peak and off-peak – during calendar 2005 (as there was in natural gas and other energy prices, as well). A notable feature of the prices in Figure 3 is how much they vary from day-to-day and from season to season. These characteristics reflect the substantial risk to bidders of supplying energy at a fixed price for one to three years into the future. This is an important element that distinguishes daily energy prices in Figure 3 from BGS auction prices. Of course, in addition to this fundamental risk element, there are other basic, significant differences in the day-ahead energy product and the BGS auction products. In particular, the PJM West day-ahead price is measured at the PJM West bus, while the BGS auction prices are measured at the EDC buses.

<sup>10</sup> A comparison of HEP and CIEP auction charges from the 2003, 2004, and 2005 auctions (specified as capacity charges in \$/MW-day) to the BGS auction prices from the 2002 auction (\$/MWh or cents/kWh) is even more problematic given the difference in the pricing units. The difficulties are compounded with the change to the CIEP product for the 2006 auction.

A time series of forward prices is difficult to construct because the day-to-day prices are for delivery in a given month or set of months in the future. As each day goes by the term to delivery shortens, causing the product to change slightly from day-to-day. In addition, forward markets for many delivery dates are not as liquid as the day-ahead market, and change substantially in liquidity over time, thus affecting the meaning of price quotes.

<sup>&</sup>lt;sup>12</sup> The source of the data is Platt's *Power Markets Week*.





Statistics that compare the behavior of market prices in each of the five years in are presented in Table 6 below. Means and standard deviations (not weighted by daily volumes) are calculated for all hours, peak hours, and off-peak hours for each of the five years. Average annual prices over all hours declined from 2001 to 2002, and then rose to a higher level in 2003, and even higher in 2004 and 2005. The standard deviation declined from 2001 to 2002, and was slightly higher in 2003, declined again in 2004, and rose in 2005. A similar pattern holds for the average annual prices for peak and off-peak hours.

<sup>&</sup>lt;sup>13</sup> The source of the data is Platt's, *Power Markets Week*.

<sup>14</sup> Prices were not weighted by daily volumes because many off-peak volumes were reported to be equal to 1, suggesting that volume weighting would create errors.

Table 6 - PJM West Day-Ahead Index Prices, Statistics By Year

Time Period	Mean (\$/MWh)	Standard Deviation
2001 All Hours	35.23	22.11
2002 All Hours	28.08	9.59
2003 All Hours	38.14	12.77
2004 All Hours	42.51	8.41
2005 All Hours	61.82	19.39
2001 Peak Hours	37.18	23.92
2002 Peak Hours	32.87	13.52
2003 Peak Hours	45.13	14.48
2004 Peak Hours	48.69	9.20
2005 Peak Hours	72.35	24.10
2001 Off-Peak Hours	19.80	5.19
2002 Off-Peak Hours	17.76	3.76
2003 Off-Peak Hours	24.14	10.68
2004 Off-Peak Hours	30.15	8.69
2005 Off-Peak Hours	40.76	14.18

Note that changes in spot energy market prices over time (at least annual average PJM West day-ahead index prices) are not always good predictors of the direction that subsequent BGS auction prices will move, although the increase in PJM prices during 2005 was consistent with the increase in 2006 auction prices over 2005 auction prices. The difference in 2005 compared to earlier years was the magnitude of the average price over the year and the change in the level over that of the preceding years. The average price during 2005 reached an historic high, increased by nearly 50 percent over the preceding year, and was nearly double the average price during 2001. In contrast, price levels and price movements in early years were much more modest, and therefore not necessarily indicative of changes in BGS auction prices. For example, spot prices decreased from calendar year 2001 to calendar year 2002, yet the February 2003 BGS auction prices were higher than the February 2002 auction prices. (Our post-auction report for the February 2003 BGS auction explained why this may have happened, including the substantial differences in changes made to the products between the 2002 and 2003 auctions.) Furthermore, spot prices increased significantly from 2002 to 2003, yet the February 2004 BGS-FP auction prices for the 12-month products were only slightly above the corresponding February 2003 BGS-FP auction prices for the 10-month products, and the February 2004 BGS-FP auction prices for the 36-month products were below the February 2003 BGS-FP auction prices for 34-month

products.<sup>15</sup> Spot prices increased again during 2004, and the 2005 auction prices also increased over previous levels, but in view of previous history it would be premature to conclude that a strong positive correlation holds between the two sets of prices. Thus, in addition to the factors discussed earlier suggesting why BGS auction prices and market prices are not directly comparable, the empirical evidence also suggests that care must be taken when comparing prices for BGS auction products with observable prices for energy market products.

-

<sup>15</sup> We use "corresponding" loosely here: we do not mean to suggest that the BGS auction products from one year to the next actually are strictly comparable. As noted previously, changes (some very significant) have been made to the products from one year to the next. For example, among other changes, products in the 2004 auctions included the delivery months of June and July while the products in the 2003 auction did not. This factor would tend to increase prices in the 2004 auction relative to the 2003 auction, when in fact some auction prices actually fell in 2004 relative to 2003.

## 7. RECOMMENDATIONS TO IMPROVE FUTURE AUCTIONS

NERA, the EDCs, the Board, Board Staff, and CRA, as well as many bidders, had four years of experience entering this year's BGS auction process, so it is not surprising that the 2006 auctions ran smoothly and without any major incidents from a procedural and mechanical viewpoint. As we have each year, we offer several reminders and suggestions to ensure the continued success of the process.

- Policy issues regarding matters that will affect bidders in the auction (e.g., treatment of renewable attributes of NUG contacts) should be addressed and resolved as early as possible in the auction process to avoid creating uncertainties that will adversely affect the auction. To the extent there are such uncertainties, bidders will tend to bid higher prices than they would otherwise.
- Schedules and deadlines for providing data and information should be adhered to as
  faithfully as possible, and when delays do occur, notice should be provided immediately
  as to when the missing data and information will be made available. We observed very
  few delays this year.
- Rigorous stress testing of the auction software should continue to occur well before the auctions are to commence and advance contingency planning should continue to occur well before the auction to better ensure that bidders are fully and clearly informed in the event of abnormal occurrences, such as auction software failures. We are aware of one software error this year (discussed above in section 4.4), but we do not believe that it had any material impact on the auction. Nonetheless, ideally such an error would have been caught and corrected in testing before the auctions opened.
- The number of EDC representatives who will have access to sensitive auction
  information should be minimized to the extent possible to reduce the real or perceived
  likelihood of either intentional or inadvertent improper exchanges of information.
  Furthermore, to provide greater certainty on this point, the confidentiality agreements
  signed by EDC representatives could be amended to contain a specific certification that
  they will not exchange sensitive information across affiliates, through a corporate parent,
  etc.
- While it was not needed this year, the Board should retain the ability to meet to approve
  or reject the results of each auction separately, in case one auction takes significantly
  longer to close than the other.

Beyond procedural and mechanical details, this year's auctions differed from previous years' auctions in several important aspects.

 For the first time, volume reductions were required and a BGS auction procured less than 100 percent of the tranches sought.

• Winning prices were substantially higher in this year's auction as compared to previous years. For example, in the FP auction the increase in the 2006 winning price over the 2005 winning price for each EDC ranged between 53 percent and 57 percent. The effects on consumer retail rates were muted by the three-year term averaging, with increases in the 12 percent to 14 percent range for typical customers (as defined by the EDCs). The price increases in the New Jersey auction were not isolated phenomena as significant price increases also were seen in wholesale electricity markets, natural gas markets, and energy procurement processes in other jurisdictions. It also should be noted, though, that consumers are not "locked in" to these prices; as market conditions change over time, competitive third-party suppliers may be able to offer prices that will be attractive in comparison to BGS rates and more customer switching may occur.

We continue to believe that an auction mechanism is the best means to ensure the lowest possible prices for New Jersey ratepayers, but as this year demonstrates, when broader market fundamentals push energy prices higher, auction prices and consumer rates will rise as well. Any bidding mechanism that is designed to achieve the lowest possible prices for consumers in the marketplace will not insulate consumers from changes in market prices.

. We expect that a relatively informal survey of past participants and other prospective bidders could be undertaken fairly quickly and inexpensively, and so we recommend that the Board consider implementing some means of gathering feedback on the factors that led potential bidders to decide whether or not to participate in the BGS auctions. Such a survey may provide useful information that could make future auctions more attractive to bidders.

## APPENDIX A: PRODUCT PRICES AND TRANCHES BY ROUND

The charts below show the round-by-round EDC-specific prices announced by the Auction Manager, and the round-by-round numbers of active tranches statewide in the two auctions (BGS-FP and BGS-CIEP).

## Figure 4 – Prices and Active Tranches – FP Auction

[Figure redacted]

## Figure 5 – Charges and Active Tranches – CIEP Auction

[Figure redacted.]

# **APPENDIX B: POST-AUCTION CHECKLISTS**

#### ATTACHMENT B Docket No. EO05040317

#### POST-AUCTION CHECKLIST FOR THE NEW JERSEY 2006 BGS-FP AUCTION

Prepared by: <u>CRA International</u>.

CRA International (CRA) was retained by the New Jersey Board of Public Utilities (the NJ BPU, or the Board) to perform a review and oversight of the New Jersey Electric Utilities' 2006 Basic Generation Service (BGS) Auction Process (Docket No. EO05040317).

This report is CRA's post-auction checklist of the BGS-FP (BGS-Fixed Price) auction process.

Auction began with the opening of Round 1 at	8:45 a.m.	on _	Monday, February 6, 2006	
Auction finished with the close of Round 17 at	2:25 n.m.	on	Tuesday, February 7, 2006	

	Start of Round 1	Start of Round 2 * (after volume reduction in Round 1, if applicable)	Start of Round n * (after post-Round 1 volume reduction, if applicable)
# Bidders		N/A	N/A
Tranche target	54	N/A	N/A
Eligibility ratio (start of round / end of round)		N/A	N/A
PSE&G load cap	14	N/A	N/A
JCP&L load cap	8	N/A	N/A
ACECO load cap	3	N/A	N/A
RECO load cap	1	N/A	N/A

<sup>\*</sup> No volume adjustment was made during the FP auction, so the pre-auction tranche target and the statewide load cap were unchanged for the auction.

Post-Auction Checklist for the New Jersey 2006 BGS-FP Auction

#### ATTACHMENT B Docket No. EO05040317

Table 1 below shows pertinent indicators and measures for the auction.

Table 1. Summary of BGS-FP Auction

	PSE&G	JCP&L	ACECO	RECO	Total
BGS-FP peak load share (MW)	2882.3	1926.4	652.6	96.6	5557.9
Total tranches needed	29	17	7	1	54
Starting tranche target in auction	29	17	7	1	54
Final tranche target in auction	29	17	7	1	54
Tranche size (% of BGS-FP load)	1.18%	2.27%	4.55%	25.00%	
Tranche size (approximate MW)	99.39	113.32	93.23	96.58	
Starting load cap (# tranches)	14	8	3	1	20*
Final load cap (# tranches)	14	8	3	1	20*
Quantity procured (# tranches)	29	17	7	1	54
Quantity procured (% BGS-FP load)	100%	100%	100%	100%	100%
# Winning bidders					10
Maximum tranches sold to any one bidder					
Minimum and maximum starting prices prior to indicative bids (¢/kWh)		127 794			
Starting price at start of auction (¢/kWh)**					
Price paid to winning bidders (¢/kWh)***	10.251	10.044	10.399	11.114	10.221

<sup>\*</sup> This is the statewide load cap, not the sum of the individual load caps.

<sup>\*\*</sup> Price shown in "Total" column is the average across the EDCs weighted by each EDC's "Starting tranche target in auction".

<sup>\*\*\*</sup> Price shown in "Total" column is the average across the EDCs weighted by each EDC's

<sup>&</sup>quot;Final tranche target in auction".

Post-Auction Checklist for the New Jersey 2006 BGS-FP Auction

#### ATTACHMENT B Docket No. EO05040317

Table 2. Overview of Findings on BGS-FP Auction

	Question	Comments
1	CRA's recommendation as to whether the	CRA recommends that the Board
	Board should certify the FP auction results?	certify the FP auction results.
2	Did bidders have sufficient information to prepare	Yes. Bidders received information
	for the FP auction?	from auction documents, an electronic
		data room, questions-and-answers
		posted to the auction Web site, and
		bidder information sessions.
3	Was the information generally provided to bidders	Generally, yes. On occasion, monthly
	in accordance with the published timetable? Was	electronic data room updates were a
	the timetable updated appropriately as needed?	few days late.
4	Were there any issues and questions left unresolved	We do not believe that there were any
	prior to the FP auction that created material	unresolved issues or questions that
	uncertainty for bidders?	created material uncertainty for bidders.
5	From what CRA could observe, were there any	We observed no such problems or
3	procedural problems or errors with the FP auction,	errors.
	including the electronic bidding process, the back-	cirois.
	up bidding process, and communications between	
	bidders and the Auction Manager?	
6	From what CRA could observe, were protocols for	Yes.
	communication between bidders and the Auction	
	Manager adhered to?	
7	From what CRA could observe, were there any	No.
	hardware or software problems or errors, either	
	with the FP auction system or with its associated	
	communications systems?	
8	Were there any unanticipated delays during the FP	No.
_	auction?	27/4
9	Did unanticipated delays appear to adversely affect	N/A
	bidding in the FP auction? What adverse effects did CRA directly observe and how did they relate	
	to the unanticipated delay?	
	to the unanticipated delay?	

3

Post-Auction Checklist for the New Jersey 2006 BGS-FP Auction

#### ATTACHMENT B Docket No. EO05040317

	Question	Comments
10	Were appropriate data back-up procedures planned and carried out?	Appropriate data back-up procedures were planned. The Auction Manager informs us these procedures were indeed carried out.
11	Were any security breaches observed with the FP auction process?	We observed no such breaches, nor were we informed of any such breaches.
12	From what CRA could observe, were protocols followed for communications among the EDCs, NERA, BPU staff, the Board (if necessary), and CRA during the FP auction?	Yes.
13	From what CRA could observe, were the protocols followed for decisions regarding changes in FP auction parameters (e.g., volume, load cap, bid decrements)?	Yes.
14	Were the calculations (e.g., for bid decrements or bidder eligibility) produced by the FP auction software double-checked or reproduced off-line by the Auction Manager?	The Auction Manager informs us that these procedures were carried out.
15	Was there evidence of confusion or misunderstanding on the part of bidders that delayed or impaired the auction?	We saw no such evidence.
16	From what CRA could observe, were the communications between the Auction Manager and bidders timely and effective?	Yes.
17	Was there evidence that bidders felt unduly rushed during the process?	No. On the second day of the auction several bidders used round extensions. The schedule was adjusted to provide bidders with more time in each round. We are unaware of any other requests for additional time or any complaints from bidders.
18	Were there any complaints from bidders about the process that CRA believed were legitimate?	We are unaware of any such complaints.
19	Was the FP auction carried out in an acceptably fair and transparent manner?	Yes.

4

Post-Auction Checklist for the New Jersey 2006 BGS-FP Auction

#### ATTACHMENT B Docket No. EO05040317

	Question	Comments
20	Was there evidence of non-productive "gaming" on the part of bidders?	We saw no such evidence.
21	Was there any evidence of collusion or improper coordination among bidders?	We saw no such evidence.
22	Was there any evidence of a breakdown in competition in the FP auction?	We saw no such evidence. Prices declined in an orderly way from the beginning to the end of the auction.
23	Was information made public appropriately? From what CRA could observe, was sensitive information treated appropriately?	From what we could observe, auction information was treated with appropriate sensitivity.
24	Does the FP auction appear to have generated a result that is consistent with competitive bidding, market-determined prices, and efficient allocation of the BGS-FP load?	Yes.
25	Were there factors exogenous to the FP auction (e.g., changes in market environment) that materially affected the FP auction in unanticipated ways?	We observed no such effects.
26	Are there any concerns with the FP auction's outcome with regard to any specific EDC(s)?	No.

#### ATTACHMENT B Docket No. EO05040317

# POST-AUCTION CHECKLIST FOR THE NEW JERSEY 2006 BGS-CIEP AUCTION

Prepared by: CRA International.

CRA International (CRA) was retained by the New Jersey Board of Public Utilities (the NJ BPU, or the Board) to perform a review and oversight of the New Jersey Electric Utilities' Basic Generation Service (BGS) Auction Process (Docket No. EO05040317).

This report is CRA's post-auction checklist of the <u>BGS-CIEP</u> (<u>BGS-Commercial and Industrial Energy Price</u>) auction process.

Auction began with the opening of Round 1 at 8:30 a.m. on Friday, February 3, 2006

Auction finished with the close of Round 15 at 12:15 p.m. on Monday, February 6, 2006

	Round 1	Round 2	Round 6
# Bidders (start of round / end of round)			
Tranche target (start of round / end of round)	118 / 106	106 / 106	106 / 76
Eligibility ratio (start of round /			
end of round pre- volume reduction* / end of round			
post-volume reduction*)			
Statewide load cap	40 tranches	40 tranches	40 tranches

<sup>\*</sup>If applicable. Volume reductions occurred at the end of rounds 1 and 6.

Post-Auction Checklist for the New Jersey 2006 BGS-CIEP Auction

#### ATTACHMENT B Docket No. E005040317

Table 1 below shows pertinent indicators and measures for the auction.

Table 1. Summary of BGS-CIEP Auction

	PSE&G	JCP&L	ACECO	RECO	Total
BGS-CIEP peak load share (MW)	1,829.8	779.3	315.8	35.7	2,960.6
Total tranches needed	73	31	13	1	118
Starting tranche target in auction	73	31	13	1	118
Final tranche target in auction	46	20	9	1	76
Tranche size (% of BGS-CIEP load)	1.37%	3.23%	7.69%	100.00%	
Tranche size (approximate MW)	25.07	25.14	24.29	35.70	
Starting load cap (# tranches)					40
Final load cap (# tranches)					40
Quantity procured (# tranches)	46	20	9	0	75
Quantity procured (% BGS-CIEP load)	63%	65%	69%	0%	63%
# Winning bidders					3
Maximum tranches sold to any one bidder					
Minimum and maximum starting prices prior to indicative bids (\$/MWh)					
Starting price at start of auction (\$/MWh)*					
Price paid to winning bidders (\$/MWh)**	\$0.4981	\$0.4787	\$0.3876	N/A	\$0.4797

<sup>\*</sup> Price shown in "Total" column is the average across the EDCs weighted by each EDC's

2

<sup>&</sup>quot;Starting tranche target in auction".

<sup>\*\*</sup> Price shown in "Total" column is the average across the EDCs weighted by each EDC's

<sup>&</sup>quot;Final tranche target in auction".

Post-Auction Checklist for the New Jersey 2006 BGS-CIEP Auction

#### ATTACHMENT B Docket No. EO05040317

Table 2. Overview of Findings on BGS-CIEP Auction

	Question	Comments
1	CRA's recommendation as to whether the	CRA recommends that the Board
	Board should certify the CIEP auction results?	certify the CIEP auction results.
2	Did bidders have sufficient information to prepare	Yes. Bidders received information
	for the CIEP auction?	from auction documents, an electronic
		data room, questions-and-answers
		posted to the auction Web site, and
		bidder information sessions.
3	Was the information generally provided to bidders	Generally, yes. On occasion, monthly
	in accordance with the published timetable? Was	electronic data room updates were a
	the timetable updated appropriately as needed?	few days late.
4	Were there any issues and questions left unresolved	We do not believe that there were any
	prior to the CIEP auction that created material	unresolved issues or questions that
	uncertainty for bidders?	created material uncertainty for
		bidders.
5	From what CRA could observe, were there any	We observed no such problems or
	procedural problems or errors with the CIEP	errors.
	auction, including the electronic bidding process,	
	the back-up bidding process, and communications	
	between bidders and the Auction Manager?	
6	From what CRA could observe, were protocols for	Yes.
	communication between bidders and the Auction	
	Manager adhered to?	
7	From what CRA could observe, were there any	No. The Auction Manager informed
	hardware or software problems or errors, either	us that due to a software issue, one
	with the CIEP auction system or with its associated	bidder, who by then was unable to bid
	communications systems?	actively, lost access to price
		information, but that this problem was
-	W 4 2 2 1 1 1 1 1 2	rectified.
8	Were there any unanticipated delays during the	No. (There were delays in bidding
	CIEP auction?	when volume reductions were
		implemented, but such delays are
		anticipated in the protocols regarding
		volume reductions.)

3

Post-Auction Checklist for the New Jersey 2006 BGS-CIEP Auction

## ATTACHMENT B Docket No. EO05040317

	Question	Comments
9	Did unanticipated delays appear to adversely affect bidding in the CIEP auction? What adverse effects did CRA directly observe and how did they relate to the unanticipated delay?	N/A
10	Were appropriate data back-up procedures planned and carried out?	Appropriate data back-up procedures were planned. The Auction Manager informs us that these procedures were indeed carried out.
11	Were any security breaches observed with the CIEP auction process?	We observed no such breaches, nor were we informed of any such breaches.
12	From what CRA could observe, were protocols followed for communications among the EDCs, NERA, BPU staff, the Board (if necessary), and CRA during the CIEP auction?	Yes.
13	From what CRA could observe, were the protocols followed for decisions regarding changes in CIEP auction parameters (e.g., volume, load cap, bid decrements)?	Yes.
14	Were the calculations (e.g., for bid decrements or bidder eligibility) produced by the CIEP auction software double-checked or reproduced off-line by the Auction Manager?	The Auction Manager informs us that these procedures were carried out.
15	Was there evidence of confusion or misunderstanding on the part of bidders that delayed or impaired the auction?	We saw no such evidence.
16	From what CRA could observe, were the communications between the Auction Manager and bidders timely and effective?	Yes.
17	Was there evidence that bidders felt unduly rushed during the process?	We saw no such evidence. Bidders made minimal use of the round extensions available to them.
18	Were there any complaints from bidders about the process that CRA believed were legitimate?	We are unaware of any such complaints.
19	Was the CIEP auction carried out in an acceptably fair and transparent manner?	Yes.

4

Post-Auction Checklist for the New Jersey 2006 BGS-CIEP Auction

## ATTACHMENT B Docket No. EO05040317

Question		Comments
20	Was there evidence of non-productive "gaming" on the part of bidders?	We saw no such evidence.
21	Was there any evidence of collusion or improper coordination among bidders?	We saw no such evidence.
22	Was there any evidence of a breakdown in competition in the CIEP auction?	There was no "competition breakdown" event, but there was insufficient interest at price levels early in the auction to ensure vigorously competitive bidding.  Volume reductions were enacted, in accordance with previously specified and approved protocols, to ensure competitive bidding on the remaining volumes in the auction.
23	Was information made public appropriately? From what CRA could observe, was sensitive information treated appropriately?	From what we could observe, auction information was treated with appropriate sensitivity.
24	Does the CIEP auction appear to have generated a result that is consistent with competitive bidding, market-determined prices, and efficient allocation of the BGS-CIEP load?	Yes, for the final volumes procured. As noted above, some volume was removed from the auction to ensure the competitiveness of the bidding.
25	Were there factors exogenous to the CIEP auction (e.g., changes in market environment) that materially affected the CIEP auction in unanticipated ways?	We observed no such effects.
26	Are there any concerns with the CIEP auction's outcome with regard to any specific EDC(s)?	No. (Although the volume reductions do mean that each EDC will need to turn to its contingency plan to supply some portion of its BGS CIEP load.)

REDACTED VERSION

5