Final Report

# Post-Auction Report on the New Jersey Utilities' Basic Generation Service Auction Processes: BGS Supply Period Beginning June 1, 2004

Redacted Version

Submitted to:

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### **Executive Summary**

This is the final report of Charles River Associates (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 for the BGS supply period beginning June 1, 2004 (Docket No. EO03050394).

#### **Background on BGS**

### 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 four electric distribution companies (EDCs) in New Jersey<sup>1</sup> 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 for Year 4 of the Transition Period 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.

#### 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

<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).



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<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).

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large customers from small customers in two distinct BGS auctions. 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.

#### CRA's Role in 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 (Fixed Price) and CIEP (Commercial and Industrial Energy Price) 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. Finally, with this report, CRA assesses the auction results and provides recommendations to improve future auctions.

As requested by Board Staff, CRA's monitoring activities for the RECO RFP process were less intensive.

### **CRA's Findings and Recommendations**

CRA determined that the implementation of the BGS auction process for Year 2 of the Post-Transition Period sufficiently met the criteria CRA proposed be used to evaluate the process. Lessons learned from the experiences of the BGS auctions held in 2002 and 2003 (including past CRA recommendations) led to very smooth auction processes this year. Of course improvements are always possible. As discussed in section 6, we believe that continued attention to the points below will contribute to repeated success in future auctions.



## **Executive Summary**

- Decisions on all issues that may affect the auction should be finalized as early as possible. We note that there appeared to be less last-minute lobbying efforts this year by prospective bidders, which we consider a positive development.
- 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 occur well before the auctions
  are to commence and advance contingency planning including the preparation of
  "stock messages" should 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. During the trial and actual auctions this year we observed no
  software or system problems.
- The number of EDC representatives who will have access to sensitive auction information should be minimized to reduce the real or perceived likelihood of either intentional or inadvertent improper exchanges of information.
- More precise protocols should be developed for the process of releasing information immediately after the Board's approval (assuming this is the case) of the auction results.



### 1. Introduction

The New Jersey Board of Public Utilities retained Charles River Associates to review and oversee the New Jersey Electric Utilities' Basic Generation Service auction processes for Year 2 of the Post-Transition Period (Docket No. EO03050394). This report is CRA's post-auction assessment of those BGS auction processes.

Following the successful BGS auctions held in February 2002 and February 2003, the Board's Decision and Order of June 18, 2003, directed the EDCs to file by July 1, 2003 BGS procurement proposals for Year 2 of the Post-Transition Period and beyond. The proposals filed by the EDCs were similar to the BGS auctions held in February 2003.

As in previous years, opportunities for interested parties to conduct discovery and file comments were provided through the July-September period. Legislative Board hearings were held on September 10, 2003. Two informal conferences also were held to develop consensus on issues related to the Supplier Master Agreements.

CRA reviewed submissions and comments, participated in discussions with the representatives of and consultants to the Ratepayer Advocate, and provided input to Staff as it prepared its submissions and comments.

On October 22, 2003, the Board approved the joint proposals subject to certain modifications and directed the EDCs to submit compliance filings by November 7, 2003.

By its Order of December 2, 2003, the Board approved (with modifications and clarifications) the EDCs' joint proposals for two descending clock auctions to secure electricity for Year 2 of the Post-Transition Period (June 1, 2004 through May 31, 2005), as well as a portion of the electricity required for Year 3 and Year 4 (ending May 31, 2006 and 2007, respectively). The Board directed the EDCs to procure approximately one-third of the BGS-FP load for a 12-month period and one-third for a 36-month period. As well, the Board approved a pilot program for three tranches of BGS load that would otherwise have been included in JCP&L's one-year FP product: these tranches were withheld from the auction and will be served through JCP&L's must-run non-utility generation (NUG) contracts and priced at the winning auction price for JCP&L's one-year FP tranches. The Board also directed the EDCs to procure one-hundred percent of the BGS-CIEP load for a 12-month period. Additionally, the Board authorized RECO's proposed RFP process for its non-PJM load.

Bids for the RECO RFP process were submitted on January 22, 2004, and the Board certified the results of this process through its Order of January 28, 2004.



### Introduction

Both the BGS-CIEP and BGS-FP auctions began on the morning of February 2, 2004. The BGS-CIEP auction closed after 52 rounds on February 6, 2004. The BGS-FP auction closed on February 10, 2004 after 71 rounds. The Board certified the results of both auctions at its Board Agenda Meeting of February 12, 2004. In both cases the Commissioners voted unanimously for approval.

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 would likely achieve the Board's objectives.
- Preparing memoranda and engaging in discussions with Staff on various specific issues, including uniform versus discriminatory pricing schemes and price "tickdown" rules.
- 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.
- Participating with Board Staff, the EDCs, and the Auction Manager in a post-auction review of the BGS auction process.

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

• Section 2 summarizes the auctions in table format, highlighting key indicators and measures.



### Introduction

- Section 3 provides our assessment of the BGS auctions, focusing on key issues and questions.
- Section 4 compares bidder participation across the three years in which BGS auctions have been held.
- Section 5 discusses our analysis of BGS auction prices.
- Section 6 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.



#### 2.1. The FP and CIEP Auctions

#### 2.1.1. FP Auction

The FP auction began with the opening of round 1 at 8:55 a.m. on Monday, February 2, 2004. It concluded with the close of round 71 at 1:50 p.m. on Tuesday, February 10, 2004.

The tranche target for the auction was 101 tranches .

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 12, 2004, Board Agenda Meeting, the Commissioners voted unanimously to accept the results of the FP auction.

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



**Table 1. Summary of BGS-FP Auction** 

	PSF	E&G	JCI	P&L	ACI	ECO	RE	CO	To	tal
Product (years):	1	3	1	3	1	3	1	3	1	3
BGS-FP peak load share (MW)	8,6	15.7	5,0	89.3	2,10	09.0		4.8	16,1	88.8
Total tranches needed	28	28	12	15	8	7	2	1	50	51
Starting tranche target in auction	28	28	12	15	8	7	2	1	50	51
Final tranche target in auction	28	28	12	15	8	7	2	1	50	51
Tranche size (% of BGS-FP load)	1.1	8%	2.2	7%	4.5	5%	25.0	00%		
Tranche size (approximate MW)	101	1.36	115	5.67	95	.83	93	.70		
Starting load cap (# tranches)	10	10	4	5	4	3	2	1		
Final load cap (# tranches)	10	10	4	5	4	3	2	1		
Quantity procured (# tranches)	28	28	12	15	8	7	2	1	50	51
Quantity procured (% BGS–FP load)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
# Winning bidders										
Maximum tranches sold to any one bidder										
Minimum and maximum starting prices prior to indicative bids (cents/kWh)										
Starting price at start of auction (cents/kWh) *										
Price paid to winning bidders (cents/kWh) **	5.479	5.515	5.325	5.478	5.473	5.513	5.566	5.597	5.445 <sup>3</sup>	5.505

<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>lt;sup>3</sup> When the three JCP&L tranches to be served through NUG contracts are factored in, this weighted average price is 5.438¢/kWh.



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

#### 2.1.2. CIEP Auction

The CIEP auction began with the opening of round 1 at 8:30 a.m. on Monday, February 2, 2004. It concluded with the close of round 52 at 9:35 a.m. on Friday, February 6, 2004.

The tranche target for the auction was 108 tranches . No volume adjustment was made during the auction, so the pre-auction tranche target and statewide load cap were unchanged for the auction.

At the February 12, 2004, Board Agenda Meeting, the Commissioners voted unanimously to accept the results of the CIEP auction.

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



**Table 2. Summary of BGS-CIEP Auction** 

	PSE&G	JCP&L	ACECO	RECO	Total
BGS-CIEP peak load share (MW)	1,634.8	700.7	348.7	28.5	2,712.7
Total tranches needed	65	28	14	1	108
Starting tranche target in auction	65	28	14	1	108
Final tranche target in auction	65	28	14	1	108
Tranche size (% of BGS-CIEP load)	1.54%	3.570%	7.14%	100.00%	
Tranche size (approximate MW)	25.15	25.03	24.91	28.50	
Starting load cap (# tranches)					36
Final load cap (# tranches)					36
Quantity procured (# tranches)	65	28	14	1	108
Quantity procured (% BGS-CIEP load)	100	100	100	100	100
# Winning bidders					
Maximum tranches sold to any one bidder					
Minimum and maximum starting prices prior to indicative bids (\$/MW-day)					
Starting price at start of auction (\$/MW-day)*					
Price paid to winning bidders (\$/MW-day)**	\$52.01	\$54.98	\$49.90	\$57.69	\$52.56

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

#### 2.2. The RECO RFP Process

Given CRA's more limited involvement with the RECO RFP process, the summary for this process is more concise than for the two auctions.

The RECO RFP was issued to secure a fixed price for RECO's supply needs (both energy and capacity) for approximately 45 MW of load in its areas served through the NYISO (rather than through PJM). The RFP was released to 28 prospective bidders on December 12, 2003.



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

RECO and Staff received proposals (six for a one-year fixed energy price, four for a three-year fixed energy price, five for a one-year fixed capacity price, and four for a three-year fixed capacity price) on January 22, 2004. After reviewing the proposals and discussing them with RECO and Staff, on January 23, 2004 the Board certified the final results and winning bids and bidders as determined by RECO (under Staff oversight). CRA did not oversee the RFP process or review the RFP bids.

The winning bids and bidders for energy and capacity for RECO's BGS load served through the NYISO were as follows:

Table 3. Results of RECO's BGS RFP for Load Served Through NYISO

Product Supply Period		Winning Bidder	Winning Bid	
Energy	June 1, 2004-May 31, 2005	Mirant Americas Energy Marketing, LP	\$50.50/MWh	
Ziioigj	June 1, 2005-May 31, 2007	Morgan Stanley Capital Group	\$51.25/MWh	
Capacity	June 1, 2004-May 31, 2005	Constellation Power Source Inc.	\$1,620.00/MW-month	
	June 1, 2005-May 31, 2007	Morgan Stanley Capital Group	\$1,800.00/MW-month	



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. The 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 Feburary 10, 2004 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.

# 3.1. 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. On February 12, 2004, the Board certified the BGS auction results based on input from Board Staff, CRA, and NERA (the EDCs' Auction Manager).

# 3.2. 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.

On a few occasions the FAQ (Frequently Asked Questions) and electronic data room updates for the BGS auction Web site did not occur on schedule (each Monday for the FAQ page update and the 17<sup>th</sup> of each month for the electronic data room update). However, when delays did occur they were reasonably brief and we have no reason to believe that these delays had any material impact on bidder behavior or on the outcome of the auctions. In some, but not all, of these cases of delay, an e-mail announcement or 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.

For easier reference, we suggest that FAQs that refer to previous FAQs ought to include the FAQ reference number of the previous FAQ.



The issue of whether BGS winning bidders would enjoy renewable energy credits associated with EDC contracts with non-utility generators was not resolved until the Board's meeting of January 23, 2004, a little over a week before the opening of bidding. It is always preferable to resolve uncertainties as far in advance of the commencement of bidding as possible; however, we do not believe that the timing of the Board decision had any negative impact on bidders or had any negative influence on bidders' participation in the auctions.

# 3.3. Were there any issues and questions left unresolved prior to the auctions that created material uncertainty for bidders?

Not of material significance. Bidders for three-year FP products did face uncertainty related to the fact that the Board may consider redefinition of the dividing line between FP and CIEP customers. However, bidders were fully aware of this uncertainty well in advance of bidding and thus were able to account for any perceived risks in their valuation and bidding models. Also, bidders were aware of uncertainty that PJM at some future time may implement marginal losses into the calculation of locational marginal prices (LMPs). This could change transmission costs to the four EDCs' service territories. Bidders were aware of this well in advance of bidding.

3.4. 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?

We observed no such problems or errors.

3.5. From what CRA could observe, were protocols for communication between bidders and the Auction Manager adhered to?

As far as we can tell, the protocols generally were adhered to. We did not have the opportunity to directly monitor communications between the bidders and the Auction Manager team.

3.6. 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?

As noted in section 3.4 above, we observed no such problems or errors.



#### 3.7. Were there any unanticipated delays during the auctions?

No, there were no unanticipated delays.

# 3.8. Did unanticipated delays appear to adversely affect bidding in the auctions? What adverse effects did CRA directly observe and how did they relate to the unanticipated delay?

As noted above in section 3.7, there were no unanticipated delays.

#### 3.9. Were appropriate data back-up procedures planned and carried out?

We were informed by the Auction Manager that data back-up procedures were being 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.

### 3.10. 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.

# 3.11. 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?

Further to CRA's recommendation from the 2001 auction process, this year (as last year) 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. We believe that the establishment and enforcement of these protocols made a positive contribution to the integrity of the BGS auction process.



# 3.12. From what CRA could observe, were the protocols followed for decisions regarding changes in auction parameters (e.g., volume, load caps, bid decrements)?

Yes. No changes in the volume — and therefore in the load caps — were made. The decision not to change the volume in either auction was in conformity with the pre-established guidelines. The Auction Manager did exercise her discretion on one occasion (in the BGS-FP auction) to deviate from the bid decrement algorithm, 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. We note that the Auction Manager did not inform Board Staff and CRA prior to implementing the override of the bid decrement formula. This is in contrast to prior BGS auctions. We recommend that if time permits, the Auction Manager inform Board Staff and the Board's Advisor that consideration is being given to overriding the bid decrements prior to implementing such an override.

Further to our advice following last year's auctions that the bid decrement algorithms be revisited, new algorithms were used this year, the Auction Manager did implement a new algorithm this year that resulted in a more gradual decline of prices. In contrast to last year, there were no large, sudden reductions in aggregate eligibility (in either auction) this year.

We understand that some bidders were unhappy with the fact that it took over a week for bidding to be completed in this year's auctions. We understand as well that the Auction Manager intends to revisit the bid decrement formula in an effort to find a better balance between ensuring a smooth progression of price decreases and concluding bidding in a reasonably short time frame.

# 3.13. Were the calculations (e.g., for bid decrements or bidder eligibility) produced by the auction software double-checked or reproduced off-line by the Auction Manager?

The Auction Manager informed us that these calculations were being done.

# 3.14. Was there evidence of confusion or misunderstanding on the part of bidders that delayed or impaired the auctions?

No, none that we are aware of.



# 3.15. From what CRA could observe, were the communications between the Auction Manager and bidders timely and effective?

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

### 3.16. Was there evidence that bidders felt unduly rushed during the process?

We saw no such evidence. On at least one occasion the Auction Manager broadcast a question to bidders to gauge their desire to accelerate the pace of bidding or increase the number of rounds per day, but after reviewing bidder responses, chose not to undertake these actions.

In addition, bidders did not make full use of opportunities they had to delay the auction (through the use of round extensions and recess requests), contrary to what one would expect if they were unduly rushed.

# 3.17. Were there any complaints from bidders about the process that CRA believed were legitimate?

We are not aware of any bidder complaints, aside from some unhappiness over the number of days it took to complete the bidding.

# 3.18. 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.

#### 3.19. Was there evidence of non-productive "gaming" on the part of bidders?

Not that we could discern.

# 3.20. 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.



-	-	
Not that we could discern.		

3.21. Was there any evidence of a breakdown in competition in the auctions?

3.22. 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.

3.23. 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).

3.24. 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.

We do note that on December 23, 2004, Standard & Poor's Ratings Services lowered credit ratings on JCP&L's parent company, First Energy. In accordance with the Board's 2002 Order, JCP&L filed a mitigation plan with the Board. Affected BGS suppliers reviewed this mitigation plan and on January 5, 2004, five of them submitted written comments to the Board. Four of these five also provided oral comments at a public legislative-type hearing on January 8, 2004. These parties requested a number of additional credit assurances from JCP&L. The Board found that there was no immediate need for JCP&L to modify its payment schedules, post security, or take any of the other remedial actions proposed by suppliers.



Also, just as last year, JCP&L received the lowest prices among the four EDCs for both its one-year and three-year FP products. Moreover, for both its three-year FP product and its CIEP product, the ratio of the JCP&L price to the tranche-weighted average price across EDCs is lower in this year's auction than in last year's. These observations suggest that the credit downgrade did not have a significant influence on the price of JCP&L products.

# 3.25. Are there any concerns with the auctions' outcomes with regard to any specific EDC(s)?

No.



## 4. Comparison of Bidder Participation Across Years

After three years of BGS auctions, it is interesting to review bidder participation over time.

The number of winning bidders (bidders who won at least one tranche) has been reasonably constant over the three years: 15 in 2002, 17 in 2003, and 14 in 2004.

Of the 26 bidders who have won at least one tranche in one or more BGS auctions over the past three years, just over half of this number (14) have been winning bidders in multiple years, and six bidders have been winners in all three years. Figure 1 illustrates winning bidders' participation over the 2002-2004 period. Several of the bidders who won only in the 2002 auction are companies that fell into serious and highly publicized financial difficulties later that year (not because of their participation in the auction).

Figure 1. Winning Bidder Participation

Bidder	2002	2003	2004
Allegheny			
Amerada			
Aquila			
BP Energy			
Conectiv			
Coned			
Constellation			
Coral			
Dominion			
DTE			
Duke			
FirstEnergy			
FPL			
J. Aron			
Mieco			
Morgan Stanley			
NRG			
PPL			
PSEG Energy			
Reliant			
Select			
Sempra			
Tractebel			
TXU			
Williams			
WPS			
		1	
		Winning Bid	dder



### **Comparison of Bidder Participation Across Years**

Figure 2 depicts the changes in individual bidders' winnings over the three years of BGS auctions. The figure demonstrates the wide variety in bidder experiences over the three years. Some bidders have won tranches in all three years, while others have participated each year but have not always been among the winners. Some bidders who were winners of large numbers of tranches in 2002 have won smaller numbers in the later years; others have followed the opposite trend. As noted above, some energy companies who fell into financial difficulties in 2002 did not participate in the 2003 and 2004 auctions, but these departures have been offset by the entrance 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.]



This section of the report analyzes the forward market price indexes and closing prices for the BGS auctions. In addition to our assessment above, the analysis here suggests the auction results reflect the auction processes approved by the Board. 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 4 below reports the Forward Market Price Index (FMPI) and final auction price for each auction product for the most recent BGS-FP auction (held February 2004), and for the BGS auctions held last year and the year before (February 2002 and February 2003).<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> FMPIs are not relevant for the BGS-CIEP auction, in which bidders bid on a "capacity charge."



**Table 4. Auction Prices and FMPIs** 

AUCTION PERIOD AND PRICE *	PSE&G	JCP&L	ACECO	RECO
FMPIs (\$/MWh)				
February 2002 Auction (12-Month Product)				
February 2003 BGS-FP Auction				
10-Month Product				
34-Month Product				
February 2004 BGS-FP Auction			l l	
12-Month Product				
36-Month Product				
Final Auction Prices (¢/kWh)			l l	
February 2002 Auction (12-Month Product)	5.112	4.865	5.117	5.819
February 2003 BGS-FP Auction			l l	
10-Month Product	5.386	5.042	5.260	5.557
34-Month Product	5.560	5.587	5.529	5.601
February 2004 BGS-FP Auction			l l	
12-Month Product	5.479	5.325	5.473	5.566
36-Month Product	5.515	5.478	5.513	5.597
Auction Price less FMPI, divided by FMPI	-1		1	
February 2002 Auction (12-Month Product)				
February 2003 BGS-FP Auction			1	
10-Month Product				
34-Month Product				
February 2004 BGS-FP Auction			1	
12-Month Product				
36-Month Product				

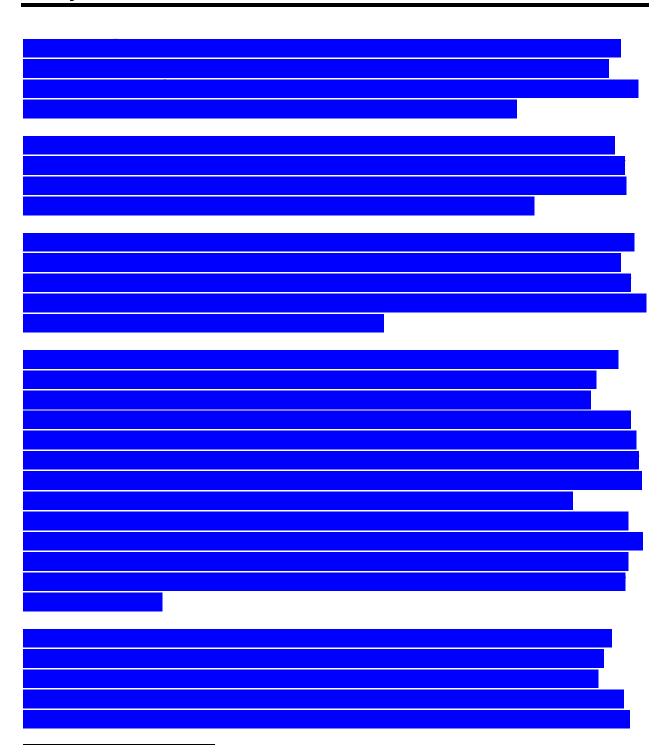
<sup>\*</sup>Note that FMPIs are specified in \$/MWh and auction prices are specified in cents/kWh.





<sup>&</sup>lt;sup>6</sup> BGS-HEP load includes larger commercial and industrial customers.

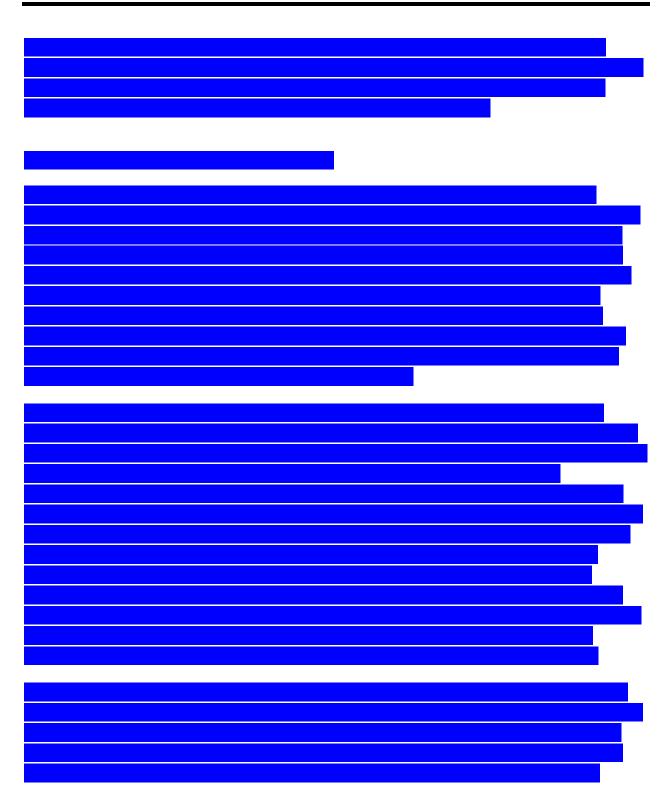




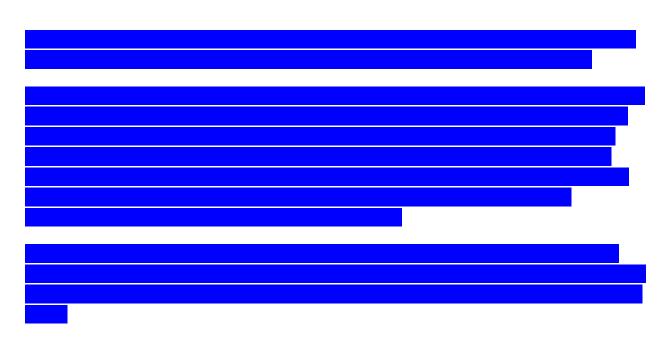
 $<sup>^{\</sup>rm 7}$  BGS-FP load refers to residential and smaller commercial customers.

 $<sup>^{\</sup>rm 8}$  BGS-CIEP load includes larger commercial and industrial customers.







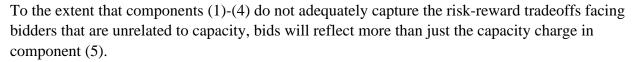


### 5.3. BGS-HEP Auction Charges

The BGS-HEP auction last year and the BGS-CIEP auction this year are characterized as "capacity auctions" in that bidders were asked to bid on "a capacity charge component." More precisely, winning BGS-CIEP suppliers receive:

- (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.
- (5) 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.







Closing charges in last year's BGS-HEP auction ranged from \$56/MW-day to \$65/MW-day across the four EDCs, and between \$49/MW-day and \$58/MW-day in this year's BGS-CIEP auction.

### 5.4. Conclusion on BGS Auction Prices and Charges

There is a natural tendency to compare BGS auction prices from the 2002, 2003, and 2004 auctions, notwithstanding that the products and market environments for the three auctions were quite different and therefore not strictly comparable. For example, one can observe that BGS-FP auction prices were slightly higher in the 2003 auction compared to the 2002 auction prices, with the exception of RECO, while the 1-year prices in the 2004 auction were higher than their 2003 counterparts and the 3-year prices were lower. Still, it would be misleading to conclude that some prices rose and other fell between the three auctions. As noted already in connection with calculations of the FMPIs, the "differences in year-to-year prices" for the EDCs may be explained by differences in the products being auctioned, by changes in market conditions, and by changes (actual and expected) in the regulatory environment. (Also, RECO is a special case because there was additional information available to bidders regarding RECO's market and transmission congestion with each succeeding auction.)

<sup>&</sup>lt;sup>9</sup> A comparison of HEP and CIEP auction prices from the 2003 and 2004 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 bid units.



There also is a natural tendency to compare BGS auction prices to "market prices." Arguably the best summary measure of the daily price of energy in PJM is the PJM West day ahead market. 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 product is comparable from day-to-day, and the price is not linked to a specific hour of the day. Figure 4 illustrates the day ahead prices for peak and off-peak deliveries from the beginning of 2001 through the end of 2003. 11

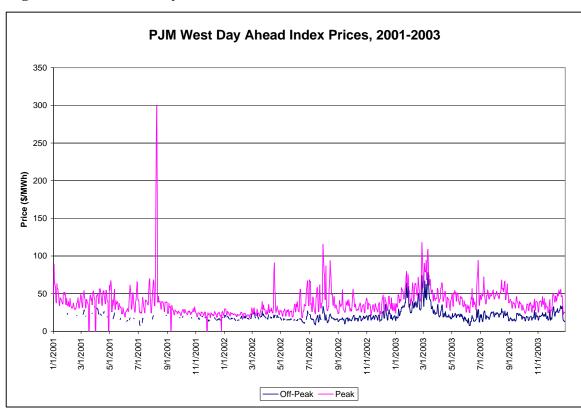


Figure 4. PJM West Day Ahead Index Prices

<sup>&</sup>lt;sup>11</sup> The source of the data is Platt's, *Power Markets Week*.



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<sup>&</sup>lt;sup>10</sup> 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 very liquid, or change substantially in liquidity over time, thus affecting the meaningfulness of price quotes.

A notable feature of the prices in Figure 3 is how much they vary from day-to-day and from season to season. Together with the changes in natural gas prices over time, 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.

Statistics that compare the behavior of market prices in each of the three years in Figure 3 are presented in Table 5 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 three years. Average annual prices over all hours declined from 2001 to 2002, and then rose to a higher level in 2003. The standard deviation declined from 2001 to 2002, and was slightly higher in 2003. A similar pattern holds for the average annual prices for peak and off-peak hours.

Table 5. PJM West Day Ahead Index Prices, Statistics by Year

Time Period	Mean (\$/MWh)	Standard Deviation
2001	35.87	24.32
2002	31.77	12.68
2003	42.99	14.98
2001 Peak	36.06	24.40
2002 Peak	32.87	13.52
2003 Peak	45.13	14.48
2001 Off-Peak	19.80	5.19
2002 Off-Peak	17.76	3.76
2003 Off-Peak	24.14	10.68

Note the lack of correlation between spot energy market prices (at least annual average PJM West day ahead index prices) and subsequent BGS auction prices. The former 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 discusses and explains this, including the substantial differences in changes made to the

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



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products between the 2002 and 2003 auctions.) And, in contrast, spot energy market 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. Thus, in addition to the factors discussed suggesting why BGS auction prices and market prices are not directly comparable, the empirical evidence also suggests that great care must be taken when comparing prices for BGS auction products with observable prices for energy market products.



<sup>&</sup>lt;sup>13</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 very good comparables. 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 auctions did not; this makes the price comparisons here even more noteworthy given that one would expect prices for the products in the 2004 auction to be materially higher than for the "corresponding" products in the 2003 auction, if in fact the products between the two auctions otherwise were comparable.

## 6. Recommendations to Improve Future Auctions

As one would expect, the lessons learned from the 2002 and 2003 BGS auctions (including recommendations from CRA) resulted in fewer problems and a smoother overall process this year. Now that NERA, the EDCs, the Board, Board Staff, and CRA, as well as many bidders, have had three years of experience with the BGS auction, we expect that auctions in future years will run even more smoothly.

Nonetheless, there are always areas where improvements can be made. Below we note areas where continued attention will contribute to repeated success in future BGS auctions.

- 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. We note that there were fewer last-minute
  lobbying efforts this year by prospective bidders, which we consider a positive
  development.
- 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 occur well before the auctions
  are to commence and advance contingency planning including the preparation of
  "stock messages" should 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. During the trial and actual auctions this year we observed no
  software or system problems.
- As recommended last year, 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. We have no reason to suspect that any improper information exchanges occurred with regard to the FP and CIEP auctions, and we recognize that NERA and the EDCs implemented formal communications protocols and regularly sent reminders to EDC staff about what information could be, and could not be, shared with whom. We also recognize that in this year's auction process EDC



## **Recommendations to Improve Future Auctions**

access to sensitive information was more limited than in the previous year, with the number of people receiving auction related information reduced and viewing of the (partial) auction results centralized to one access-controlled location in Newark. However, we note as well that the list of EDC staff who had access to various pieces of sensitive auction information remained a lengthy one this year. We suggest that in future years NERA and the EDCs attempt to be as restrictive as possible with regard to EDC access to sensitive information, both to minimize the likelihood of inadvertent inappropriate information sharing, and to reinforce the perception of the fact that significant measures are in place to ensure that information does not flow improperly from an EDC to its affiliates.

- We recommend that if time permits, the Auction Manager inform Board Staff and the Board's Advisor that consideration is being given to overriding the bid decrements prior to implementing such an override.
- For easier reference, FAQs that refer to previous FAQs ought to include the FAQ reference number of the previous FAQ.
- We understand that there was some misunderstanding this year among EDC and Board staff regarding what information could be released when, following the Board's approval of the auction results. More precise protocols should be developed for the process of releasing information immediately after the Board's approval (assuming this is the case) of the auction results.



# **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).



Charles River Associates

# **Product Prices and Tranches by Round**

### **FP Auction**

[Figure redacted.]



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# **Product Prices and Tranches by Round**

#### **CIEP Auction**

[Figure redacted.]



# **Appendix B: Post-Auction Checklists**



#### POST-AUCTION CHECKLIST FOR THE NEW JERSEY YEAR TWO BGS-CIEP AUCTION

Prepared by: Charles River Associates Incorporated.

Charles River Associates (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' Year Two Basic Generation Service (BGS) Auction Process (Docket No. EO03050394).

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

Auction began with the	e opening of Round 1 at	8:30 am on Monday	, February 2, 2004
Auction finished with t	he close of Round 52 at	9:34 am on Friday.	, February 6, 2004
	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	108 tranches	N/A	N/A
Eligibility ratio		N/A	N/A
Statewide load cap	36 tranches	N/A	N/A



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

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)	1,634.8	700.7	348.7	28.5	2,712.7
Total tranches needed	65	28	14	1	108
Starting tranche target in auction	65	28	14	1	108
Final tranche target in auction	65	28	14	1	108
Tranche size (% of BGS-CIEP load)	1.54%	3.57%	7.14%	100.00%	
Tranche size (approximate MW)	25.15	25.03	24.91	28.50	
Starting load cap (# tranches)					36
Final load cap (# tranches)					36
Quantity procured (# tranches)	65	28	14	1	108
Quantity procured (% BGS-CIEP load)	100%	100%	100%	100%	100%
# Winning bidders					
Maximum tranches sold to any one bidder					
Minimum and maximum starting prices prior to indicative bids (\$/MW-day)					
Starting price at start of auction (\$/MW-day)*					
Price paid to winning bidders (\$/MW-day)**	\$52.01	\$54.98	\$49.90	\$57.69	\$52.56

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



<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".

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.
	in accordance with the published timetable? Was	
	the timetable updated appropriately as needed?	
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	
<u> </u>	Manager adhered to?	
7	From what CRA could observe, were there any	No.
	hardware or software problems or errors, either	
	with the CIEP auction system or with its associated	
- 0	communications systems?	N.
8	Were there any unanticipated delays during the	No.
	CIEP auction?	NT/A
9	Did unanticipated delays appear to adversely affect	N/A
	bidding in the CIEP auction? What adverse effects	
	did CRA directly observe and how did they relate	
	to the unanticipated delay?	



	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 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.		
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.		
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.		



	Question	Comments
22	Was there any evidence of a breakdown in	We saw no such evidence.
	competition in the CIEP auction?	
23	Was information made public appropriately? From	From what we could observe, auction
	what CRA could observe, was sensitive	information was treated with
	information treated appropriately?	appropriate sensitivity.
24	Does the CIEP auction appear to have generated a	Yes.
	result that is consistent with competitive bidding,	
	market-determined prices, and efficient allocation	
	of the BGS-CIEP load?	
25	Were there factors exogenous to the CIEP auction	We observed no such effects.
	(e.g., changes in market environment) that	
	materially affected the CIEP auction in	
	unanticipated ways?	
26	Are there any concerns with the CIEP auction's	No.
	outcome with regard to any specific EDC(s)?	



#### POST-AUCTION CHECKLIST FOR THE NEW JERSEY YEAR TWO BGS-FP AUCTION

Prepared by: Charles River Associates Incorporated.

Charles River Associates (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' Year One Basic Generation Service (BGS) Auction Process (Docket No. EO03050394).

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	8:55 a.m.	on	Monday, February 2, 2004
Auction finished with the close of Round 71 at	1:50 p.m.	on	Tuesday, February 10, 2004

	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	101	N/A	N/A
Eligibility ratio		N/A	N/A
PSE&G load caps	1yr.=10, 3yr.=10	N/A	N/A
JCP&L load caps	1yr.=4, 3yr.=5	N/A	N/A
ACECO load caps	1yr.=3, 3yr.=3	N/A	N/A
RECO load caps For each EDC there are so	1yr.=2, 3yr.=1 eparate load caps for the 10-	N/A month and 34-month products.	N/A

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



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

Table 1. Summary of BGS-FP Auction

	PSE	Z&G	JCI	P&L	ACI	ECO	RE	CO	To	tal
Product (years):	1	3	1	3	1	3	1	3	1	3
BGS-FP peak load share (MW)	861	5.7	508	39.3	210	9.0	37	4.8	161	88.8
Total tranches needed	28	28	12	15	8	7	2	1	50	51
Starting tranche target in auction	28	28	12	15	8	7	2	1	50	51
Final tranche target in auction	28	28	12	15	8	7	2	1	50	51
Tranche size (% of BGS-FP load)	1.1	8%	2.2	7%	4.5	5%	25.0	00%		
Tranche size (approximate MW)	101	.36	115	5.67	95	.83	93	.70		
Starting load cap (# tranches)	10	10	4	5	4	3	2	1		
Final load cap (# tranches)	10	10	4	5	4	3	2	1		
Quantity procured (# tranches)	28	28	12	15	8	7	2	1	50	51
Quantity procured (% BGS–FP load)	100	100	100	100	100	100	100	100	100	100
# Winning bidders										
Maximum tranches sold to any one bidder										
Minimum and maximum starting										
prices prior to indicative bids										
(cents/kWh)										
Starting price at start of auction (cents/kWh) *										
Price paid to winning bidders (cents/kWh) **	5.479	5.515	5.325	5.478	5.473	5.513	5.566	5.597	5.445	5.505

<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 "Final tranche target in auction".

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.
	in accordance with the published timetable? Was	
	the timetable updated appropriately as needed?	
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
	procedural problems or errors with the FP auction,	errors.
	including the electronic bidding process, the back-	
	up bidding process, and communications between	
	bidders and the Auction Manager?	V.
6	From what CRA could observe, were protocols for	Yes.
	communication between bidders and the Auction	
7	Manager adhered to?	NT-
7	From what CRA could observe, were any hardware	No.
	or software problems or errors observed, either	
	with the FP auction system or with its associated communications systems?	
8	Were there any unanticipated delays during the FP	No.
0	auction?	INO.
9	Did unanticipated delays appear to adversely affect	N/A
🦻	bidding in the FP auction? What adverse effects did	IVA
	CRA directly observe and how did they relate to	
	the unanticipated delays?	
	the unanticipated delays:	



	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 that 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 caps, 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?	We saw no such evidence.
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.
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.



	Question	Comments
22	Was there any evidence of a breakdown in	We saw no such evidence.
	competition in the FP auction?	
23	Was information made public appropriately? From	From what we could observe, auction
	what CRA could observe, was sensitive	information was treated with
	information treated appropriately?	appropriate sensitivity.
24	Does the FP auction appear to have generated a	Yes.
	result that is consistent with competitive bidding,	
	market-determined prices, and efficient allocation	
	of the BGS-FP load?	
25	Were there factors exogenous to the FP auction	We observed no such effects.
	(e.g., changes in market environment) that	
	materially affected the FP auction in unanticipated	
	ways?	
26	Are there any concerns with the FP auction's	No.
	outcome with regard to any specific EDC(s)?	

