Final Report

Post-Auction Report on the New Jersey Utilities' Basic Generation Service Auction Processes: February 2005 Auctions

Redacted Version

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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 completed in February 2005 for the BGS supply period beginning June 1, 2005 (Docket No. EO04040288).

Background on BGS

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 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.

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 EDCs² for Year 1 and Year 2 of the Post-Transition Period. While the process outlined in the EDCs' *Proposal for Basic Generation Service Beyond*

² 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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¹ 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).

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 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.

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 (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. 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.

CRA's Role in February 2005 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, this year's process included consideration of some new matters, such as revised rules and procedures for setting price decrements.



CRA's Findings and Recommendations

CRA determined that the implementation of this year's BGS auction process sufficiently met the criteria CRA proposed be used to evaluate the process. Lessons learned from the experiences of the BGS auctions held in previous years (including past CRA recommendations) led to very smooth auction processes again this year. Of course improvements are always possible with the benefit of experience. As discussed in section 6, we believe that continued attention to the points below will contribute to repeated success in future auctions.

- As noted last year, 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 are unaware of any last-minute lobbying efforts this year by prospective bidders, as occurred in some previous years, which we view positively.
- 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.
 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.
- Ideally the FP and CIEP auctions would conclude at close to the same time, and if this is not the case, it is generally preferable to have the CIEP auction close before the FP auction, contrary to what happened this year. For next year's auctions, consideration should be given to any or all of: altering the schedules so that, relatively speaking, more CIEP rounds are run more quickly; amending the CIEP



decrement formula so that prices can move more quickly to their closing levels when there remains little excess eligibility in the auction; and lowering the starting prices, given that closing prices in the past two years have been significantly below the starting level of

Another option worth consideration is having the Board meet to approve or reject the results of each auction separately. This option would require only a marginal amount of additional time and effort (e.g., an extra hour or two for those who attend these hearings), and would remove the need for the provisional winners of one auction to be put "on hold" while they wait for the other auction to conclude in the event that the two auctions do not close at approximately the same time.



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 held in February 2005 (Docket No. EO04040288). This report is CRA's post-auction assessment of those BGS auction processes.

Following the successful BGS auctions held in February 2002, February 2003, and February 2004, the Board's Decision and Order of May 24, 2004, directed the EDCs to file by July 1, 2004 BGS procurement proposals for periods beginning June 1, 2005. The proposals filed by the EDCs were highly similar to those filed for the BGS auctions held in February 2004.

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 15, 2004.

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

On October 22, 2004, the Board approved the joint proposals subject to certain modifications and directed the EDCs to submit compliance filings by November 3, 2004.

On November 9, 2004, the Board approved the EDCs' joint proposals for two descending clock auctions to secure electricity for periods beginning June 1, 2005. The Board directed the EDCs to procure approximately one-third of the BGS-FP load for the three-year period from June 1, 2005 through May 31, 2008. As in the previous year, the Board approved a pilot program for three tranches of BGS load that would otherwise have been included in JCP&L's 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 FP tranches. The Board also directed the EDCs to procure one-hundred percent of the BGS-CIEP load for the one-year period from June 1, 2005 through May 31, 2006.

Both the BGS-CIEP and BGS-FP auctions began on the morning of February 10, 2005. The BGS-FP auction closed on February 11, 2005 after 13 rounds. The BGS-CIEP auction closed after 71 rounds on February 15, 2005. The Board certified the results of both auctions at its Board Agenda Meeting of February 16, 2005. In both cases the Commissioners voted unanimously for approval.



Introduction

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, 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. (This was held on March 22, 2005.)

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.
- Section 3 provides our assessment of the BGS auctions, focusing on key issues and questions.
- Section 4 compares bidder participation across the four years in which BGS auctions have been held.



Introduction

- 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. Summary of the BGS Auctions

2.1. The FP and CIEP Auctions

2.1.1. FP Auction

The FP auction began with the opening of round 1 at 8:45 a.m. on Thursday, February 10, 2005. It concluded with the close of round 13 at 2:00 p.m. on Friday, February 11, 2005.

The pre-auction eligibility of the registered bidders was tranches. The tranche target for the auction was 50 tranches, yielding a pre-auction eligibility ratio of electric electric eligibility ratio of electric electri

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 16, 2005, 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.



Summary of the BGS Auctions

Table 1. Summary of BGS-FP Auction

Product:	PSE&G	JCP&L	ACECO	RECO	Total
BGS-FP peak load share (MW)	8,630.2	4,891.1	2,124.7	364.7	16,010.7
Total tranches needed	28	12	8	2	50
Starting tranche target in auction	28	12	8	2	50
Final tranche target in auction	28	12	8	2	50
Tranche size (% of BGS-FP load)	1.18%	2.27%	4.55%	25.00%	
Tranche size (approximate MW)	101.53	111.16	96.58	91.18	
Starting load cap (# tranches)	10	4	3	2	
Final load cap (# tranches)	10	4	3	2	
Quantity procured (# tranches)	28	12	8	2	50
Quantity procured (% BGS–FP load)	100%	100%	100%	100%	100%
# Winning bidders					7
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) **	6.541	6.570	6.648	7.179	6.591 ³

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

³ When the three JCP&L tranches to be served through NUG contracts are factored in, this weighted average price is 6.589¢/kWh.



^{**} Price shown in "Total" column is the average across the EDCs weighted by each EDC's "Final tranche target in auction".

Summary of the BGS Auctions

2.1.2. CIEP Auction

The CIEP auction began with the opening of round 1 at 8:30 a.m. on Thursday, February 10, 2005. It concluded with the close of round 71 at 2:55 p.m. on Tuesday, February 15, 2005.

The pre-auction eligibility of the registered bidders was tranches. The tranche target for the auction was 115 tranches, yielding a pre-auction eligibility ratio of 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 16, 2005, 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.



Summary of the BGS Auctions

Table 2. Summary of BGS-CIEP Auction

Product:	PSE&G	JCP&L	ACECO	RECO	Total
BGS-CIEP peak load share (MW)	1,679.7	881.5	291.8	30.1	2,883.1
Total tranches needed	67	35	12	1	115
Starting tranche target in auction	67	35	12	1	115
Final tranche target in auction	67	35	12	1	115
Tranche size (% of BGS-CIEP load)	1.49%	2.86%	8.33%	100.00%	
Tranche size (approximate MW)	25.07	25.19	24.32	30.10	
Starting load cap (# tranches)					39
Final load cap (# tranches)					39
Quantity procured (# tranches)	67	35	12	1	115
Quantity procured (% BGS-CIEP load)	100%	100%	100%	100%	100%
# Winning bidders					6
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)**	\$22.62	\$25.38	\$39.76	\$20.47	\$25.23

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



^{**} Price shown in "Total" column is the average across the EDCs weighted by each EDC's "Final tranche target in auction".

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 15, 2005 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 16, 2005, 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 Tuesday for the FAQ page update and the 17th of each month for the electronic data room update). However, when delays did occur they generally were reasonably brief, although somewhat longer delays were experienced with updates to some JCP&L data in December and January. We have no reason to believe, though, 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.

The Board Order on ownership of EDCs' non-utility generation (NUG) contract renewable energy credits (RECs) did not come until January 18, 2005, approximately three weeks before



the start of bidding. As noted in last year's report, 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. As 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. 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.

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 could 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?

Consistent with CRA's recommendation in 2001 for the initial auction process, 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 several occasions 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. Unless time constraints prevented such notification, the Auction Manager informed Board Staff and CRA prior to implementing the overrides of the bid decrement formula.

Following last year's experience in which it took more than a week to complete both auctions, the Auction Manager revised the bid decrement formula for this year 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.

The revised decrements, along with the use of decrement overrides, resulted in smooth and orderly price reductions for the four products in the FP auction and the completion of that auction in less than two days of bidding. Because there were several bidders carrying the maximum possible eligibility level for several rounds and because the product-specific load caps prevented these bidders from switching their bidding focus from one product to another, bid decrements were often at their maximum levels; this was an important contributor to the quick pace of this year's FP auction.

The CIEP auction took almost four days of bidding to complete, meaning that provisional FP winning bidders were "on hold" for two business days (and a weekend) while they waited for the CIEP auction to close. Two factors seem to have contributed to this year's CIEP auction being longer than the previous year. First, prices in both years began at the same level, but closed at significantly lower levels this year as compared to last year, thus more rounds were required to get to these lower price levels. Second, while the prices for the JCP&L, PSE&G, and RECO CIEP products all tracked fairly closely together throughout the auction, the ACECO CIEP product maintained a significant price gap throughout the auction, including at its close. This dynamic led to uneven rates of price decline across products and thereby contributed to a longer auction.⁴ (We are uncertain as to why the ACECO CIEP product commanded this premium over the prices of the other CIEP products. One possibility is that the high degree of customer switching in the ACECO CIEP class made the product too small for some bidders to consider worthwhile.)

⁴ Unlike the FP auction, the CIEP auction features a single statewide load cap, which provides bidders with more flexibility to switch their bidding focus from one product to another. This feature makes it less likely that decrements will be at their maximum level across all products in any given round.



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. Bidders made minimal use of the round extensions available to them, and no bidder requested a time-out in either auction, 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.

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.

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

Not that we could discern. Both auctions began with strong eligibility ratios (suggesting the presence of sufficient competition), and in both auctions there were many bidders of similar size, so it is highly unlikely that any one bidder held enough tranches to control an auction's outcome. Finally, 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.

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.



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

We now have four years' worth of data with which to review and compare bidder participation over time.

The number of winning bidders (bidders who won at least one tranche) in the BGS auctions each year has been reasonably constant over the three years: 15 in 2002, 17 in 2003, 14 in 2004, and 11 in 2005. (Note that the number of FP tranches available this year was roughly half the number in the past two auctions as the 2005 auction featured only three-year FP products, whereas previous auctions had featured both one-year and three-year products.)

Only one of the 2005 winning bidders (Edison Mission) had not been a winning bidder in some previous year.

Of the 27 bidders who have won at least one tranche in one or more BGS auctions over the past four years, more than half of this number (16) have been winning bidders in multiple years, and four bidders have been winners in all four years. Figure 1 identifies winning bidders for the auctions held each year since 2002. 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 (but not because of their participation in the auction).



Comparison of Bidder Participation Across Years

Figure 1. Winning Bidders

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

Figure 2 depicts the changes in individual bidders' winnings over the four 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 four years. Some bidders have won tranches in all four 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 later auctions, but these departures have been more than offset by the entry of other bidders, including a growing number of players from the financial sector, as opposed to traditional electricity generating companies.



Comparison of Bidder Participation Across Years

Figure 2. Bidders' Winnings

[Figure redacted.]



Comparison of Bidder Participation Across Years

Figure 3 illustrates the growth in initial eligibility that has occurred with the auctions. The eligibility ratios depicted in the graph can be thought of as representing the average number of bidders chasing each tranche at the outset of the auction. In the first auction in 2002, there were effectively for each available tranche at the beginning of the auction. Since that time, the initial eligibility ratio has increased each year for both the FP auctions and the HEP/CIEP auctions. In this year's auctions there were effectively per tranche at the outset of the FP auction and per tranches for the CIEP auction. While other factors are also important, these initial eligibility ratios are indicative of competitive auctions.

Figure 3. Initial Eligibility Ratios

[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 3 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 2005), and for the BGS auctions held in prior years.⁵

⁵ FMPIs are not relevant for the BGS-CIEP auction, in which bidders bid on a "capacity charge."



Table 3. Auction Prices and FMPIs

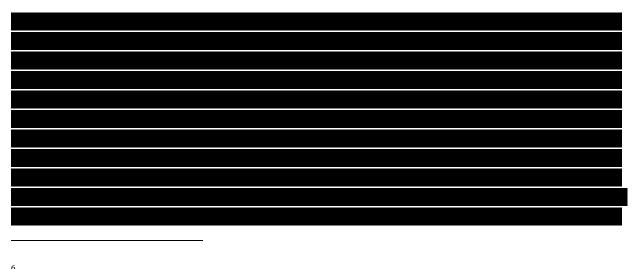
AUCTION PERIOD AND PRICE *	PSE&G	JCP&L	ACECO	RECO
FMPIs (\$/MWh)				
February 2002 Auction (12-Month Product)				
February 2003 BGS-FP Auction			1	
10-Month Product				
34-Month Product				
February 2004 BGS-FP Auction			1	
12-Month Product				
36-Month Product				
February 2005 BGS-FP Auction				
36-Month Product				
Final Auction Prices (\$/MWh)				
February 2002 Auction (12-Month Product)	51.12	48.65	51.17	58.19
February 2003 BGS-FP Auction				
10-Month Product	53.86	50.42	52.60	55.57
34-Month Product	55.60	55.87	55.29	56.01
February 2004 BGS-FP Auction				
12-Month Product	54.79	53.25	54.73	55.66
36-Month Product	55.15	54.78	55.13	55.97
February 2005 BGS-FP Auction			1	
36-Month Product	65.41	65.70	66.48	71.79



AUCTION PERIOD AND PRICE *	PSE&G	JCP&L	ACECO	RECO
Auction Price less FMPI, divided by FMPI				
February 2002 Auction (12-Month Product)				
February 2003 BGS-FP Auction				
10-Month Product				
34-Month Product				
February 2004 BGS-FP Auction				
12-Month Product				
36-Month Product				
February 2005 BGS-FP Auction				
36-Month Product				

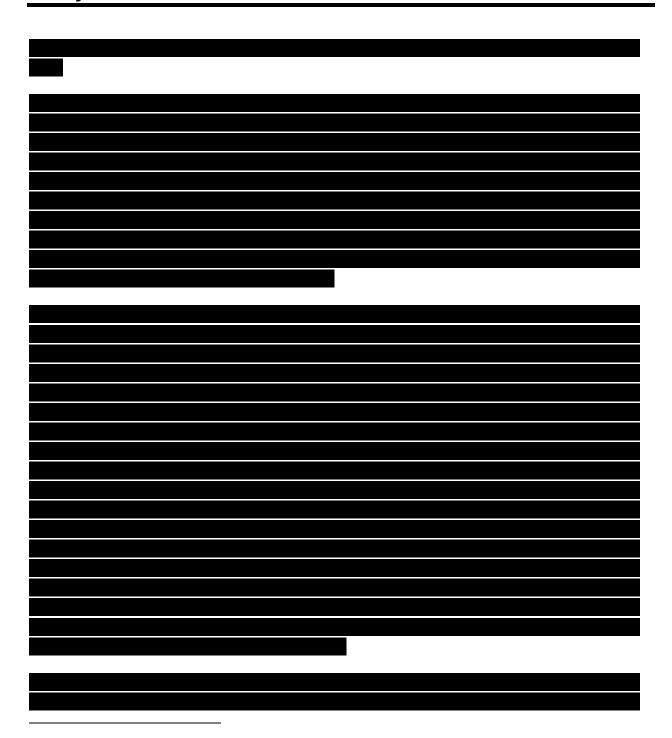
^{*}The auction prices generally are specified in cents/kWh, but here we convert them to \$/MWh for ease of comparison with the FMPIs.

5.1. Forward Market Price Indexes (FMPIs)









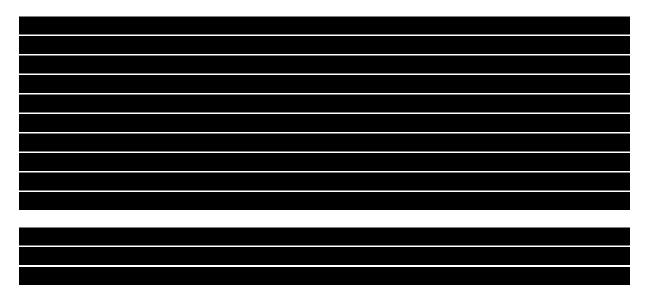
 $^{^{\}rm 7}$ BGS-HEP load includes larger commercial and industrial customers.

⁹ BGS-CIEP load includes larger commercial and industrial customers.

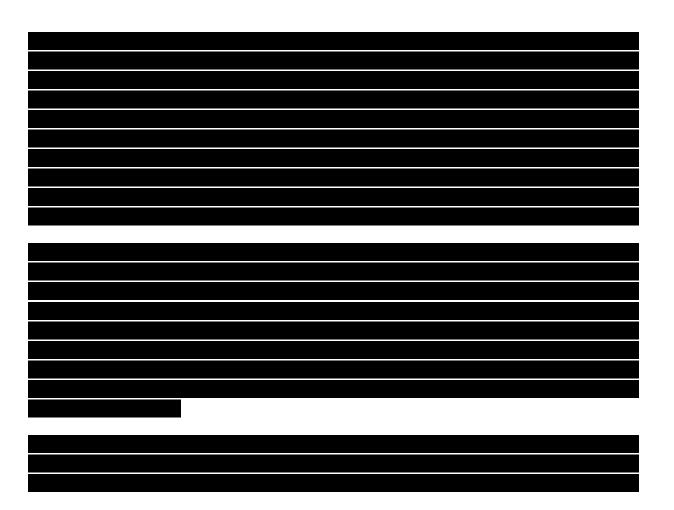


 $^{^{\}rm 8}$ BGS-FP load refers to residential and smaller commercial customers.

5.2. FMPIs and BGS-FP Auction Prices







5.3. BGS-CIEP Auction Charges

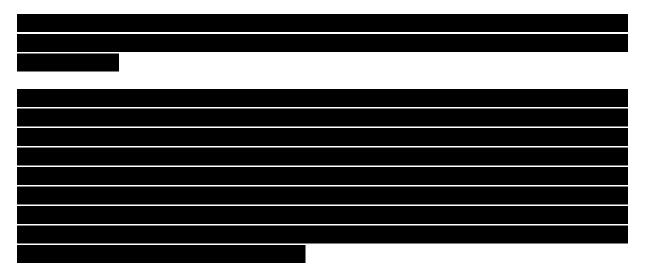
The BGS-HEP auction in 2003 and the BGS-CIEP auctions in 2004 and this year are characterized as "capacity auctions" in that bidders were asked to bid on "a capacity charge component." More precisely, winning BGS-CIEP suppliers receive:

- (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. 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.
- (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.

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 last year's 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 this year's 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 this year's auction; generally stable and low prices in PJM capacity markets; and everincreasing bidder confidence as they gain experience with the product and the process.



5.4. Conclusion on BGS Auction Prices and Charges

As in past reports, we compare BGS auction prices from the 2002 through 2005 auctions with PJM market prices, keeping in mind that the products and market environments for the four auctions were quite different and that the relationship between auction prices and market prices would change as a result. 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. In the 2005 auction all BGS-FP prices were higher. Still, it would be misleading to conclude simply that some prices rose and others fell between the four 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.)

These caveats should be kept in mind when comparing BGS auction prices to other "market prices." As in past reports, 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 4 shows the PJM West day-ahead prices for peak and off-peak deliveries from the beginning of 2001 through the end of 2004. 12

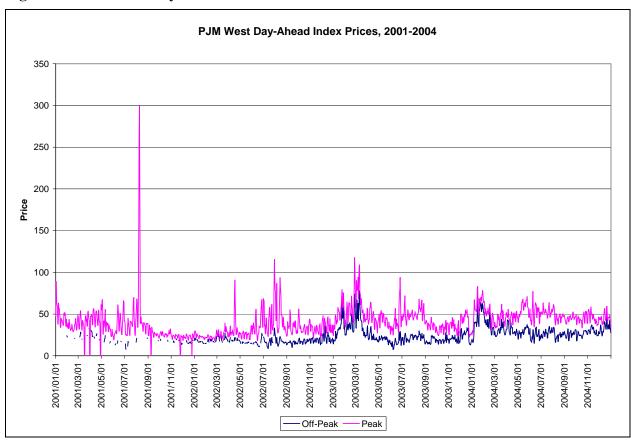
¹² The source of the data is Platt's, *Power Markets Week*.



¹⁰ A comparison of HEP and CIEP auction charges 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 pricing units.

¹¹ 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.

Figure 4. PJM West Day-Ahead Index Prices



A notable feature of the prices in Figure 4 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 4 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.

Statistics that compare the behavior of market prices in each of the four years in Figure 4 are presented in Table 4 below.¹³ Means and standard deviations (not weighted by daily volumes)

¹³ The source of the data is Platt's, *Power Markets Week*.



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are calculated for all hours, peak hours, and off-peak hours for each of the four 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. The standard deviation declined from 2001 to 2002, and was slightly higher in 2003, and declined again in 2004. A similar pattern holds for the average annual prices for peak and off-peak hours.

Table 4. PJM West Day-Ahead Index Prices, Statistics by Year

Time Period	Mean (\$/MWh)	Standard Deviation
2001 All Hours	35.87	24.32
2002 All Hours	31.77	12.68
2003 All Hours	42.99	14.98
2004 All Hours	46.37	10.68
2001 Peak Hours	36.06	24.40
2002 Peak Hours	32.87	13.52
2003 Peak Hours	45.13	14.48
2004 Peak Hours	48.69	9.20
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

Note that changes in spot energy market prices over time (at least annual average PJM West day-ahead index prices) are not necessarily good predictors of the direction that subsequent BGS auction prices will move. 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

¹⁴ 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.



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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. Spot prices increased again during 2004, and the 2005 auction prices also increased over previous levels, but in view of the longer history it would be premature to conclude that a 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 great care must be taken when comparing prices for BGS auction products with observable prices for energy market products.



¹⁵ 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.

6. Recommendations to Improve Future Auctions

As one would expect, the lessons learned from past BGS auctions (including recommendations from CRA) resulted in a very smooth overall process this year. Now that NERA, the EDCs, the Board, Board Staff, and CRA, as well as many bidders, have had four years of experience with the BGS auction, we expect that auctions in future years will continue to run very smoothly.

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

- As noted last year, 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 are unaware of any last-minute lobbying efforts this year by prospective bidders, as occurred in some previous years, which we view positively.
- 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.
 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.
- Ideally the FP and CIEP auctions would conclude at close to the same time, and if this is not the case, it is generally preferable to have the CIEP auction close before the FP auction, contrary to what happened this year. For next year's auctions, consideration should be given to any or all of: altering the schedules so that,



Recommendations to Improve Future Auctions

relatively speaking, more CIEP rounds are run more quickly; amending the CIEP decrement formula so that prices can move more quickly to their closing levels when there remains little excess eligibility in the auction; and lowering the starting prices, given that closing prices in the past two years have been significantly below the starting level of

Another option worth consideration is having the Board meet to approve or reject the results of each auction separately. This option would require only a marginal amount of additional time and effort (e.g., an extra hour or two for those who attend these hearings), and would remove the need for the provisional winners of one auction to be put "on hold" while they wait for the other auction to conclude in the event that the two auctions do not close at approximately the same time.



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

Figure 5 – Prices and Active Tranches – FP Auction

[Figure redacted.]



Charles River Associates

Product Prices and Tranches by Round

Figure 6 – Prices and Active Tranches – CIEP Auction

[Figure redacted.]



Appendix B: Post-Auction Checklists



POST-AUCTION CHECKLIST FOR THE NEW JERSEY 2005 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. EO04040288).

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	8:30 am	on T	`hursday,	February 10, 2005	
Auction finished with the close of Round 71 at _		2:55 pm 0	on	Γuesday,	February 15, 2005
	Start of Round 1	reduction i	volume	e nd 1,	Start of Round n * (after post-Round 1 volume reduction, if applicable)
# Bidders		N	I/A		N/A
Tranche target	115 tranches	N	J/A		N/A
Eligibility ratio (start of round / end of round)		N	N/A		N/A
Statewide load cap	39 tranches	N	I/A		N/A

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



^{*} 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. Summary of BGS-CIEP Auction

	PSE&G	JCP&L	ACECO	RECO	Total
BGS-CIEP peak load share (MW)	1,679.7	881.5	291.78	30.1	2,883.08
Total tranches needed	67	35	12	1	115
Starting tranche target in auction	67	35	12	1	115
Final tranche target in auction	67	35	12	1	115
Tranche size (% of BGS-CIEP load)	1.49%	2.86%	8.33%	100.00%	
Tranche size (approximate MW)	25.07	25.19	24.32	30.10	
Starting load cap (# tranches)					39
Final load cap (# tranches)					39
Quantity procured (# tranches)	67	35	12	1	115
Quantity procured (% BGS-CIEP load)	100%	100%	100%	100%	100%
# Winning bidders					6
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)**	\$22.62	\$25.38	\$39.76	\$20.47	\$25.23

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



^{**} 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-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.
	hardware or software problems or errors, either	
	with the CIEP auction system or with its associated	
	communications systems?	
8	Were there any unanticipated delays during the	No.
	CIEP auction?	
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. 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.
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. Prices
	competition in the CIEP auction?	declined in an orderly way from
		beginning to end of the 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 2005 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' 2005 Basic Generation Service (BGS) Auction Process (Docket No. EO04040288).

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	Thursday, February 10, 2005
Auction finished with the close of Round 13 at	2:00 p.m.	on	Friday, February 11, 2005

	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	50	N/A	N/A
Eligibility ratio (start of round / end of round)		N/A	N/A
PSE&G load cap	10	N/A	N/A
JCP&L load cap	4	N/A	N/A
ACECO load cap	3	N/A	N/A
RECO load cap	2	N/A	N/A

^{*} 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.



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)	8630.2	4891.1	2124.7	364.7	16010.7
Total tranches needed	28	12	8	2	50
Starting tranche target in auction	28	12	8	2	50
Final tranche target in auction	28	12	8	2	50
Tranche size (% of BGS-FP load)	1.18%	2.27%	4.55%	25.00%	
Tranche size (approximate MW)	101.53	111.16	96.58	91.18	
Starting load cap (# tranches)	10	4	3	2	
Final load cap (# tranches)	10	4	3	2	
Quantity procured (# tranches)	28	12	8	2	50
Quantity procured (% BGS-FP load)	100%	100%	100%	100%	100%
# Winning bidders					7
Maximum tranches sold to any one bidder					
Minimum and maximum starting prices prior to indicative bids (¢/kWh)					
Starting price at start of auction (¢/kWh)*					
Price paid to winning bidders (¢/kWh)**	6.541	6.570	6.648	7.179	6.591

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



^{**} 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. 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
	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?	
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	
0	communications systems?	N
8	Were there any unanticipated delays during the FP	No.
	auction?	N/A
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?	



	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?	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 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. Prices
	competition in the FP auction?	declined in an orderly way from
		beginning to end of the 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)?	

