

I/M/O Provision of Basic Generation Service (“BGS”)

Pursuant to the Electric Discount and Energy Competition Act

N.J.S.A. 48:3-57

BPU Docket No. EO03050394

Initial Comments of the Division of the Ratepayer Advocate

August 8, 2003

Introduction

The Division of the Ratepayer Advocate (“Ratepayer Advocate”) is filing this document pursuant to the procedural schedule established by the Board of Public Utilities (“Board” or “BPU”) in its June 18, 2003 Order. These represent our initial comments in this docket. The Ratepayer Advocate also intends to review the comments and proposals of other parties, conduct discovery, and subsequently provide the Board with a final set of comments that will include comments regarding the other proposals filed.

The Ratepayer Advocate has a number of concerns about the utilities’ proposal. The areas of concern include:

1. In the fixed price (“FP”) BGS auction, the use of tranches; that is, slices of load, rather than a baseload, cycling, peaking approach used to solicit least-cost power supplies.
2. The fact that the BGS-FP auction rules limit the term of contracts, without a determination whether a broader mix of contract duration would produce lower prices.
3. The fact that the winning bidders of the auctions are considered “retail” providers of power directly to retail customers, thereby losing the potential consumer protection benefits which might be available if, instead, the winners were considered wholesale providers to each Electric Distribution Company (“EDC”).
4. The failure to use tranches that separate residential and commercial customer load.

5. Augmenting the process and methodology by which the Board may assess the effectiveness of the auction.
6. The fact that the proposed rules do not reduce prices in the BGS-FP auction, even when all suppliers selected would willingly accept lower prices.
7. The fact that the BGS-FP auction pays all suppliers selected the highest “market clearing price,” even when some suppliers had bid lower prices.

Points 1 through 5 address areas and raise issues which require fairly extensive re-evaluation and modification of the auction framework proposed by the utilities. The Ratepayer Advocate urges the Board to take this opportunity to consider and address these points. Points 6 and 7 are somewhat different. They address details of the proposed rules for the BGS-FP auction. If the Board decides to go forward using the basic framework proposed by the utilities, the Ratepayer Advocate suggests that the Board adopt at least the modest changes proposed in Points 6 and 7.

Choice of Products

The Board should re-evaluate whether structuring the BGS-FP auction process around the procurement of identical “slice-of-the-system” tranches is most desirable. Traditionally, least-cost generation planning has involved vertically integrated utilities constructing an optimal mix of baseload, cycling, and peaking-type generating units. The use of tranches requires each bidder to perform the same type of least-cost planning exercise, in effect creating an optimal mix of baseload, cycling, and peaking units to serve each slice of the system for one- and three-year time periods. These optimal mixes have to be assembled for each tranche and for each year’s auction separately. Instead, the auction could be structured to solicit bids separately for each EDC, for the baseload, cycling, and peaking units. Such bids would specify fixed and variable costs bid separately. Other states, such as Arizona and Colorado, have taken this approach. (*For example, see Docket No. E-01032C-00-0751, et al., Decision No. 66028 of the Arizona Corporation Commission*). Each EDC would then be able to identify a least-cost portfolio of supply options after each round of bidding. The Auction Manager would inform the bidders how many megawatts were bid to each EDC after each round of bidding, so that if a particular EDC’s load were over-subscribed, bidders could (and would have to) shift some supply to other EDCs. In this process capacity should not be withdrawn from the market. (The Federal Energy Regulatory Commission (“FERC”) has prohibited, in some cases, capacity “withholding” in the wholesale spot power market. See for example, FERC Docket No. EL00-95-031, et al., June 19, 2001 Order, p. 8.)

The alternative bidding process would continue until enough bids had been made to each EDC to cover peak demand and required reserves. At this point, each bidder would be asked to make their “best and final” price offer. However, in doing so, they would not be allowed to reduce the number of megawatts of any supply source bid to any EDC, nor increase the price. Depending on the least-cost mix of supply resources for each EDC selected based on the best and final offer prices, the winners would be chosen. Winners would be paid their bid’s fixed and variable prices. There would be no equivalent to a single “market clearing price” for tranches proposed by the utilities.

One advantage of this alternative bidding process is that it allows for greater economies of scale and scope, because least-cost packages of supplies do not have to be assembled for each individual tranche. The alternative bidding process also provides greater flexibility to construct a least-cost portfolio for each EDC based on the available resources. The currently proposed process provides less flexibility to obtain the best portfolio of resources for each EDC. It also increases costs. Bidders in the auction process proposed by the EDCs will add cost to the mix of supplies they choose in order to cover their administrative expenses and profits. It may make more sense for the Auction Manager to perform this service for all EDC customers, such that there is no profit for the bidders as middlemen. The Auction Manager could perform this function directly. Perhaps, then, Independent Power Producers will directly bid their generation supplies into the auction, since they will no longer need a middleman to assemble the least-cost mixes for each tranche.

Use of EDC proposed tranches may make it easier for bidders to increase the bid price improperly. This ability can be “buried” in the single price required for each tranche. With a portfolio approach, bidders would have to make explicit the price for each component supply source. Because each bidder would have little idea of how supply resources might be grouped when the winning least-cost portfolio is created, the portfolio approach should encourage the lowest possible price bids for each resource.

A further advantage to seeking bids for baseload, cycling, and peaking power is that such an approach would fit much more naturally with including a process for the acquisition of additional load management and DSM resources in order to keep electricity prices down for retail customers. In particular, suppliers of new load management options, including possibly the EDCs themselves, could either bid into the auction, competing with new peaking options, or simply put these technologies in place on a regulated basis if they were cost-effective.

The Ratepayer Advocate understands that a shift in products as discussed above would be a substantial change. If the Board wishes to test the portfolio approach, it might be possible to carry out the two different auction processes at the same time—the portfolio management approach that we suggest, and the slice-of-the-system tranche approach that the EDCs propose. By carrying out both types of auctions the Board could allow the results to “compete” against each other. This could be done this year for the remaining two-thirds of the BGS-FP load. Then, whichever process results in lower fixed prices for the June 1, 2004 – May 31, 2005 power year could be relied on for acquiring

the power for that year. Or each type of auction process could be used for a pre-specified fraction of the remaining two-thirds of the load. Such a “competitive” auction process could help ensure that the resultant retail rates for BGS-FP service would be at competitive levels. Any concern about the added cost of running two auctions is far outweighed by the necessity to monitor, and if necessary, fine tune a relatively new auction process that the majority of residential and small commercial ratepayers rely on for their electricity needs.

Contract Terms

The utilities are recommending that their proposed auction design be implemented in more or less the same way every year in the future. This would allow them to procure approximately one-third of the BGS-FP load on a three-year cycle. Adoption of this three-year cycle would preclude either shorter- or longer-term contracts, even when such contracts might be of benefit to ratepayers.

The Ratepayer Advocate suggests that the option for contract terms longer than three years should remain open. There is good reason to believe that longer-term contracts could lead to a lower average cost for ratepayers. The primary reason for this is that longer-term contracts greatly reduce the financial risk to generation unit owners who sell power. This lower risk, in a time of great financial uncertainty for the independent power industry, would likely translate into a lower cost of capital and longer implicit depreciation schedules for the power plants from which the BGS service is provided. This coming year may be a particularly good time to establish an auction process to test the very reasonable hypothesis that longer-term contracts might be lower in price than contracts limited to one to three years. If, as many expect, a natural gas supply crisis is about to occur, then it may be beneficial to lock in power based on longer-term firm gas supply contracts to serve New Jersey’s electrical needs.

While the Ratepayer Advocate does not claim to know at this time what mix of contract durations would result in least-cost rates for retail ratepayers, the Ratepayer Advocate recommends that a flexible auction process be established so that the power market can be thoroughly examined to determine what kinds of contracts appear to be most beneficial to ratepayers. One way to do this is to request bids for various contract durations. One might request bids for one, three, five years or more, or some similar range of contract durations. The number of tranches of contracts of each duration to be selected would not be determined ahead of time as the EDCs propose. Instead, they would be determined as a result of the bidding process. The bid evaluation process could be structured to achieve the goal of the lowest present value cost per kWh over the three-year time frame for which 100 percent of needed supplies would be finalized, as long as the prices for any period beyond the next three years did not escalate unreasonably. Alternatively, since the degree of pricing risk and uncertainty increases into the future, the Board could establish a formula for how much power should be acquired on a percentage basis in this auction from one, three and five or more year contracts. For example, since one-third of the BGS-FP load for Year 2 has already been acquired from last year’s three-year contract, for the remainder of Year 2 load solicited now, one-third

more for Year 2 could be acquired from the lower cost of either the one- or three-year contract bids this year, and the final one-third of Year 2 could be acquired from the lower cost of either the five- or more year contracts for Year 2. Again, this would be subject to all winning bids having reasonable escalation rates for price in the later years of these longer-term contracts.

Such an alternative process would provide the Board with much useful information on how to structure the least-cost outcome for both Year 2 and future years through an auction process held this year. Depending on what mix of winning contract durations is chosen this year, the Board will then know how much power it will need to solicit next year for Year 3. At that time the Board can make a similar decision as to how much power to obtain from contracts of various durations by repeating the type of process we have described above.

Retail or Wholesale Contracts

The EDCs have suggested that under New Jersey law and Board orders the BGS power supply contracts that they sign with the auction winners are “retail” contracts. The EDCs see themselves as acting as agents for each individual retail customer in signing the contracts. (Oral communication with Dr. R. Rosen, Ratepayer Advocate consultant.) The EDCs have also stated that they do not take title to the BGS power supplies, and, thus, the auction winners are the Load Serving Entities that directly serve the retail load according to the BGS tariff provisions. (See response to data request #MSCG-3.) This arrangement implies that the contracts the auction winners sign with the EDCs are not filed with and approved by FERC, because they are not considered to be wholesale power contracts. However, the response to data request (#MSCG-3) also states that “bidders, in consultation with their counsel, must characterize the transaction for themselves.” Thus, the EDCs actually seem to be unsure whether or not the contracts with the auction winners should be considered retail, not wholesale, power contracts. The Ratepayer Advocate suggests that the Board settle this issue prior to the auction, so the bidders understand the contract relationships clearly.

Treating the contracts between the auction winners and the EDCs as retail contracts may be improper under federal law. (*See 16 USCS Sections 824(b) and (d)*). The contracts signed between the auction winners and the EDCs are bulk power contracts. No contracts are signed between retail customers and the auction winners, nor are specific retail customers allocated or assigned to specific auction winners, or LSEs. The prices paid by ratepayers are based on the average prices paid to the auction winners. Thus, ratepayers do not pay the specific rate for any particular auction winner. To call the contracts for bulk power supplies between the auction winners and the EDCs “retail” contracts with the EDCs, with the EDCs merely acting as an agent for each individual retail customer, appears to be fiction. These contracts are, clearly, wholesale power contracts in concept and function.

Accepting the contracts as wholesale, not retail, will not diminish the Board’s ability and responsibility to review the prudence of the EDCs in signing these contracts.

These types of regulatory authority remain with the state PUCs. Thus, the Ratepayer Advocate suggests that the Board eliminate the “retail fiction” so that ratepayers can benefit from all the consumer protections offered by Board review of these power supply contracts prior to their being approved to provide BGS service, and from any consumer protection offered by the Federal Power Act.

The Federal Power Act may provide a means for addressing whether or not market power exists in the interstate or regional power markets in which New Jersey participates, and may provide protections from the exercise of such power. One such set of legal protections will likely be the consequence of FERC Docket No. EL01-118-000, in which FERC has stated its intention to issue market power related guidelines the observance of which would be a necessary condition for sellers being allowed market-based ratemaking authority. The results of this docket would apply to all wholesale power markets in the US, both bilateral contract and spot markets, including those operated by PJM. Furthermore, if market power were later found to taint the prices being paid under these contracts, it is possible that FERC could order refunds and take further action to control market power in the wholesale power markets which impact New Jersey in the future. Once the Board has deemed the signing of the contracts with the auction winners to be prudent, there may be no further ability at the State level to address the issue of whether or not the prices paid are just and reasonable.

Recognizing contracts between the auction winners and the EDCs as wholesale power contracts, as they appear to be, would also encourage the EDCs to do a better job of designing and implementing the auctions if they remain responsible for these tasks, since they would be subject to rate disallowances if the tasks were not carried out properly. This approach might also encourage the EDCs to implement DSM and load management investment programs, if doing so could reduce electric rates, because then the EDCs could not just “rely on the market” to carry out all of its planning and resource acquisition responsibilities.

Define Tranches by Customer Group

In the BGS-FP auction, the utilities have proposed that each “tranche” be a percentage of the utility’s entire BGS-FP load in each hour. The Ratepayer Advocate suggests that taking bids for tranches to serve specific predetermined customer classes or groups may result in fairer prices. Evidence for this view is provided by available data concerning the cost of “Default Service” obtained in Massachusetts and Rhode Island. (“Default Service” is generation service obtained for customers who do not, on their own, obtain generation service from the market.)

In Massachusetts, Default Service is obtained for different customer classes or groups of classes on the basis of competitive bids from suppliers. The table below shows the prices for the current period obtained by Massachusetts Electric and Nantucket Electric Companies for residential and small commercial customers.

Months (2003)	Default Service Price (\$ per kWh)	
	Residential	Small General (Commercial)
May	.07448	.07680
June	.07656	.08291
July	.08339	.09118
August	.08050	.09006
September	.06110	.07130
October	.06033	.06130

(Last Resort Service, a presentation by Michael Hager, Vice President for Energy Supply at National Grid to RI PUC, April 28, 2003.)

As shown in the table, the prices for residential supply are in all cases lower than the prices for small general customers.

The results of the Massachusetts procurement were presented to the Rhode Island Commission and Staff. In response, in a break with past procedure, separate bids for suppliers to provide Last Resort service for residential and non-residential customers were requested by Rhode Island. (“Last Resort” service is a form of Default Service, provided to customers who have gone to the market and then left it.) The resulting prices for the period September 2003 to February 2004, were over 5 percent less on average for residential than for non-residential service.

There is a simple reason why suppliers may offer lower prices for residential than for non-residential service. Non-residential customers are, in general, more sophisticated. Thus, they are more likely to shift on and off BGS service to take advantage of opportunities for savings that the market may offer. This creates a “switching risk” which suppliers need to include in their prices. While market conditions (i.e., PJM vs. ISO-NE) procurement sizes, and bidding arrangements (i.e., auction vs. “sealed bid”) differ between Massachusetts and Rhode Island on the one hand, and New Jersey on the other, the results are cited to show that suppliers should, and in certain contexts do, bid differently to supply residential and non-residential load. In light of this situation, the Ratepayer Advocate suggests that the tranches offered in the BGS-FP auction be divided into residential and non-residential, so that these differences can be reflected in the resulting prices produced by the auction.

In response to RAR-1, the utilities offered a number of reasons why they do not recommend a residential/non-residential split in the tranches. The concerns voiced there are all “theoretical”: none reflect actual experience with procurements elsewhere. Contrary to the comments in RAR-1, actual experience elsewhere shows that there is sound basis for separate residential and non-residential tranches beginning with this BGS-FP auction.

Reasonableness of the Auction Results

The EDCs assume that the wholesale market for power within New Jersey will be competitive if their proposed auction process is used. This view is based on the results from prior years. The EDCs rely on the FERC and the PJM Market Monitoring Unit (“PJM MMU”) to determine whether or not the market for wholesale power supplies within New Jersey is competitive.

The most recent review of the PJM wholesale markets, performed by the PJM MMU for 2002 (“State of the Market” - March 5, 2003, hereinafter the “Report”)¹ concludes that the PJM markets are competitive. The Report goes on to state on page 1 that the competitiveness of the markets are “a serious concern given the extreme inelasticity of demand and high levels of concentration [of generation ownership] in capacity credit markets.” In addition, the MMU stated that “potential threats to competition in the energy, capacity, regulation and spinning markets . . . require ongoing scrutiny.” On page 4 of the Report, the PJM MMU states that the PJM energy market has “high levels of concentration [of generation ownership] in the intermediate and peaking segments of the supply curve,” which are the generating units that set most all the energy market clearing prices.

The goal of any auction process for BGS power should be to achieve just and reasonable rates at the retail level. Remember, it is a safety net for customers who are not ready to put in the time and effort to learn about switching electric suppliers, customers who are unable to find a competitive supplier because of bad credit history and those on payment assistance programs. BGS is a “safe harbor” for these customers and the Board should do everything in its power to ensure that these rates are affordable.

From the academic literature, it is clear that simply having a large number of bidders in an auction does not guarantee that the auction process is effective in achieving reasonable rates. One needs to determine whether or not the resulting rates of return on the underlying investments are consistent with the financial risks incurred in a competitive power market.

Therefore, to address the effectiveness of the auction, one must compare the prices set by the auction to those that would be charged for the same power if a regulated return had been charged. In effect, this compares the market prices produced by the auction to their underlying cost basis. To make this comparison, the Board should require all winning bidders to reveal on a confidential basis the cost of their power supplies. This data requirement would extend back to the costs of the power supplies that the bidders will rely upon. This data should be provided on a confidential basis available only to the Board, Board Staff, a Board consultant, and the Ratepayer Advocate. Having this cost data available will allow the Board to determine if the results of the auction in fact produced just and reasonable rates. This is a new process for all involved. We learn new things with each auction, and hopefully, are making it more effective and efficient each go around.

¹ The report is available on the PJM website at <http://www.pjm.org/markets/market-monitor/reports.html>.

Tick Down on Ties

The BGS-FP auction is what is called a descending clock auction. As currently proposed, prices “tick down” throughout the auction, starting high and being reduced gradually until the supply bid is just sufficient to meet the load to be procured. Prices that tick down in a round decrease by a **decrement**, that is a percentage of the previous price. Under the rules proposed by the utilities, prices do not tick down when the number of tranches freely bid equals the number of tranches desired. (Such equality is the “tie” referred to in the section title.) This situation is illustrated in Example 4 of *APPENDIX B – Preliminary Auction Rules for FP Auction*. It is the Ratepayer Advocate’s suggestion that the rules be modified so that, when there is a tie, the price for that product does “tick down.”

The reason for proposing this modification is quite simple: failure to tick down on ties is unfair to the customers who will pay the prices produced by the auction. When there is a tie, all of the suppliers bidding on the product may be willing to supply the product at a price lower than the price for that product established in the current auction round. Unless, in future auction rounds, additional tranches are bid for the product, the auction will end without any price change which would test the willingness of all the bidders to take a lower price. The Ratepayer Advocate believes that this situation can and should be avoided by requiring prices to tick down whenever there is a tie.

In order to implement the proposed change, the Board must specify a rule to determine the decrement, that is the percentage of the previous price, which will be the price in the next round. Currently, decrements are defined using an elaborate set of formulas, presented in Appendix G.2 of APPENDIX B. These formulas are based on a numerical value, the oversupply ratio, which is positive when the number of tranches bids exceeds the number desired, but zero when the number bid equals the number desired. Rather than adapt these complex formulas for use when the oversupply ratio is zero, the Ratepayer Advocate suggests that the (percentage) decrement for any product for which there is a tie be set at 95 percent of the smallest decrement in that round determined using the formulas. Ties could occur at the end of the auction when, absent decrements for ties, there would be no other tick down in prices. In this situation, the decrement for ties should be set at 95 percent of the smallest formula-based decrement in the last round in which there were such decrements.

In considering the Ratepayer Advocate’s suggestion that prices tick down on ties, it is important to focus on the key feature—prices decrease until at least one of the bidders signals an unwillingness to provide the product at the currently proposed price, by withdrawing a bid for one or more tranches. At that point the bid would be retained to ensure supply of the product, unless another bidder has stepped forward to replace the tranches which would be withdrawn. The proposed decrement to use for ties is, in the Ratepayer Advocate’s opinion, reasonable. However, the Ratepayer Advocate could

accept other proposals for the decrement as long as the result is that prices do tick down until ties are broken.

Move Toward Pay As Bid

As proposed by the utilities, the auction ends for all products at the same time. At the end of the auction, tranches of each product are allocated to the winning bidders. Under the utilities' proposal, all winners for a product's tranches, should the Board authorize them as suppliers, will receive the **highest price** that had to be accepted to fill the tranche target. How the "highest price" is to be determined depends on the way the bids for each tranche were determined in the final round. Example 15 in APPENDIX B illustrates the operation of the proposed mechanism for setting winning prices as follows:

- Assume that the desired number of tranches for PSE&G-1 (the one-year supply of BGS-FP for PSE&G) is 28.
- Assume that in round 74, 29 tranches for PSE&G-1 are bid at a price of 4.500¢/kWh, and that in round 75, 24 tranches for PSE&G-1 are bid at a price of 4.489¢/kWh. Four tranches need to be retained. If the auction ends in round 75, all winning bids will receive a price of 4.500¢/kWh, which is the highest accepted price.

In this example, 24 bidders are paid more than they freely bid. This is unfair to the customers who will pay the prices determined in the auction. To address this issue, the Ratepayer Advocate suggests that winning bidders be paid the lowest price they freely agreed to accept, not the highest price accepted for the product.

The suggested change is a rather modest step in the direction of what is usually referred to as a "pay-as-bid" or "discriminatory" auction. As the utilities note in their response to RAR-10, there is literature concerning the choice between these two and other types of auctions. This includes the recent paper *Modeling Electricity Auctions* by N. Fabra et al. (*Electricity Journal*, August/September 2002). The results presented in the *Electricity Journal* rely on a more detailed, currently unpublished analysis. In that analysis the authors point out that, if a regulator is only concerned about the minimization of prices, then the regulator should never choose a uniform auction, as it is always (weakly) outperformed by a discriminatory auction.

In the *Electricity Journal*, the authors discuss the paper by Kahn et al. cited by the utilities in their response to RAR-10. The authors note that the Kahn paper relies on a paper by Maskin and Riley. In discussing that paper the authors comment as follows:

- Nevertheless, the discriminatory auction still yields higher (expected) revenues for the seller—or **lower prices for the buyer** in a procurement auction—and so might be preferred to the uniform auction on those grounds. (emphasis added).

The Ratepayer Advocate suggests that, in an auction to obtain supply for BGS-FP, the appropriate goal is to minimize prices. Based on the preceding discussion, it is the Ratepayer Advocate's position that the modest change suggested is reasonable and appropriate as part of an effort to minimize the cost of BGS-FP to ratepayers.

The change suggested by the Ratepayer Advocate also relates to the issue of equity. In response to RAR-10, the utilities address the issue of equity as follows:

- When all suppliers provide the same product to the same customers, as they are in BGS, suppliers may perceive the outcome of a pay-as-bid auction to be unfair since suppliers are not paid the same price and yet perform the same function.

With the Ratepayer Advocate's suggested change, winning bidders still receive at least the price they bid. It is hard to see how this could be unfair. Indeed, all the suggested change does is reduce but not eliminate the opportunities for bidders to be paid more than they have freely bid.

Conclusion

The Ratepayer Advocate suggests that the Board make the following changes to the proposed auction process:

1. Modify the auction approach to one based on baseload, cycling, and peaking products, rather than tranches each of which represents a "slice-of-the-system." Require the bidders to separate their bids to provide separate prices to cover fixed and variable costs. Allow bids for services over various time periods, including up to at least five or more years.
2. If the Board is hesitant to change the auction process to a portfolio management approach, it should conduct both portfolio and non-portfolio (i.e., tranche-based) auctions simultaneously, let the results compete against each other in order to determine which approach is better.
3. Do not decide now whether future auctions will procure one-third of all the BGS service each year, based on rolling three-year contracts. Allow for the possibility that longer-term contracts might yield lower prices for consumers.
4. Require, at a minimum, all winning bidders to provide cost data for their underlying generation resources.
5. If the general structure of the BGS-FP auction remains unchanged, approve the reforms to the tranche-based bidding process recommended in the sections of the Ratepayer Advocate's comments dealing with "Tick Down on Ties" and "Moving Toward Pay As Bid."