

**STATE OF ILLINOIS  
ILLINOIS COMMERCE COMMISSION**

ILLINOIS COMMERCE COMMISSION :  
On Its Own Motion :  
 :  
 :  
Investigation of Rider CPP of Commonwealth :  
Edison Company, and Rider MV of Central : No. 06-0800  
Illinois Light Company d/b/a/ AmerenCILCO, :  
Of Central Illinois Public Service Company :  
d/b/a AmerenCIPS, and of Illinois Power :  
Company, d/b/a/ AmerenIP, pursuant to :  
Commission Order regarding the Illinois Auction :

**REBUTTAL TESTIMONY OF FRANK C. GRAVES  
ON BEHALF OF  
MIDWEST GENERATION EME L.L.C.  
AND  
EDISON MISSION MARKETING AND TRADING**

**APRIL 6, 2007**

1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Frank C. Graves. My business address is 44 Brattle Street, Cambridge, MA,  
4 02138-3736.

5 **Q. WHAT IS YOUR CURRENT POSITION, YOUR EXPERIENCE IN THE**  
6 **ELECTRIC POWER INDUSTRY, AND YOUR EDUCATIONAL BACKGROUND?**

7 A. I am a Principal at *The Brattle Group*, an economics consulting firm that is very active in  
8 the utility industry. I have been consulting to the electric industry for over 25 years. My  
9 experience includes most aspects of resource planning, financing, pricing and cost recovery, and  
10 regulatory review processes for utilities. I have testified often before state regulatory  
11 commissions and the FERC, as well as in state and federal courts. I have an M.S. degree in  
12 management with a concentration in finance from the MIT Sloan School of Management, and an  
13 undergraduate degree in mathematics from Indiana University. My C.V. is submitted as *EMMT*  
14 *& MW Gen Exhibit 1.1*.

15 **Q. WHAT IS YOUR EXPERIENCE WITH COMPETITION MATTERS**  
16 **GENERALLY AND AUCTIONS SPECIFICALLY, SUCH AS THOSE CONDUCTED BY**  
17 **THE ILLINOIS UTILITIES TO OBTAIN ELECTRIC POWER?**

18 A. I have assisted several utilities with analyses of the market power implications of  
19 resource-acquisition strategies, and I have testified on a few occasions regarding the competitive  
20 impacts of horizontal and vertical consolidations. I was the project leader of a team at *Brattle*  
21 that developed the first market-performance report for the PJM ISO, after which that function  
22 was taken over by PJM's Market Monitor. I have assisted electric companies in both divesting  
23 assets and bidding to acquire them in auctions and request-for-proposal (RFP) processes. I have  
24 been one of the most active economists in the area of the design, pricing, and coverage of  
25 Provider of Last Resort services, and I have assisted utilities in both bidding on such obligations  
26 and evaluating offers to cover them.

27 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE ILLINOIS COMMERCE**  
28 **COMMISSION?**

29 A. I have, on two occasions. I testified on behalf of Midwest Generation in 2005 in regard  
30 to load caps for the auctions now under review in this proceeding. I also testified before the ICC  
31 in a matter involving hedging by People’s Gas Light and Coke (and North Shore Gas) in 2005.

32 **II. PURPOSE AND SUMMARY OF TESTIMONY**

33 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

34 A. The purpose of this testimony is to analyze whether proposed benchmarks for evaluating  
35 the results of the Illinois standard-offer service (SOS) supply auction are reasonable and useful.  
36 Specifically, my testimony examines those benchmarks proposed by Dr. Kenneth Rose, who  
37 offered testimony on behalf of the Attorney General of the State of Illinois. I also examine  
38 whether the use of these benchmarks as either a “reserve” or “reference” price in the auction is  
39 appropriate.

40 **Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.**

41 A. There are three broad classes of problems associated with Dr. Rose’s position concerning  
42 the Illinois auction process. First, he is using improper benchmarks for judging the auction  
43 result, and those benchmarks are likely to lead to erroneous conclusions about the performance  
44 of the auction. Second, his suggested use of either an announced *ex ante* “reserve” price (or  
45 auction starting price) to put a tight cap on the auction outcome, or an *ex post* “reference” price  
46 to judge the results of the auction (a distinction he does not clearly make), is based on faulty  
47 logic and fraught with difficulties. Third, his implicit reliance on price benchmarks as the  
48 primary, if not exclusive, means of evaluating the auction poses an obvious risk of either  
49 precluding or overturning a competitive auction result.

50 **III. DR. ROSE USES IMPROPER BENCHMARKS FOR JUDGING THE**  
51 **COMPETITIVENESS OF THE AUCTION**

52 **Q. DO YOU AGREE WITH DR. ROSE THAT “THE COMMISSION [SHOULD]**  
53 **ASSESS RESULTS OF ELECTRICITY PROCUREMENT PROCESSES BY**  
54 **COMPARING THOSE RESULTS WITH WHOLESALE MARKET PRICES AND**  
55 **PRODUCTION COSTS OF ELECTRICITY IN ILLINOIS?”**

56 A. No. I do not think that the success of the auction depends on, or can be measured by,  
57 how the auction prices compare to wholesale market prices. The competitiveness of the auction  
58 depends largely on the extent of auction participation and the aggressiveness of competitive  
59 behavior within the auction, rather than on a mere price result. In this case, Dr. Rose mistakenly  
60 uses 2006 PJM energy prices, and 2002/3 production costs over a limited region, as benchmarks  
61 for making his assessment of the success of the Illinois auction.

62 **Q. WHY ISN'T IT APPROPRIATE TO COMPARE THE 2006 AUCTION RESULT**  
63 **WITH 2006 PJM SPOT MARKET ENERGY PRICES?**

64 A. First, the Illinois SOS supply auction is a forward-looking process. Generators and other  
65 market participants are foregoing the opportunity to sell energy into the PJM (and MISO) spot  
66 markets in the future, or to engage in future bilateral sales of energy and capacity, in order to  
67 enter into a long-term “slice-of-load” SOS supply obligation with all of its attendant risks. This  
68 means that SOS auction prices will depend on expectations about future energy prices (as well as  
69 other factors) and not on past energy prices. Those expectations are influenced by many factors,  
70 including forward prices for power and fuels and the perceived uncertainty in future market  
71 conditions and regulatory rules over the service-contract horizon.

72 Second, looking at energy prices alone is misleading, even if they are predicted future prices  
73 rather than recent past spot prices. One also must consider predicted prices for capacity,  
74 transmission, and ancillary services that have to be provided as part of the SOS supply  
75 obligation. Then, one must consider fuel-cost risk as well as volumetric risk with respect to the  
76 amount of energy that must be provided.<sup>1</sup> The SOS slice-of-load, full-requirements product is a  
77 vastly different product than spot energy. One would expect its price to be above anticipated  
78 future spot-energy prices, with little or no necessary relation to past spot energy prices. Dr. Rose  
79 acknowledges that these non-energy factors exist as concerns and sources of additional cost for  
80 suppliers, but he dismisses them without analysis as likely to be small and instead focuses  
81 narrowly on energy cost benchmarks.

---

<sup>1</sup> Other risks in the auction product are identified in the *Post-Auction Report of the (ICC) Staff*, December 6, 2006, p. 16, including regulatory risk and uncertainty fundamental to the PJM and MISO markets.

82 **Q. WHAT ARE YOUR CONCERNS ABOUT COMPARING THE AUCTION**  
83 **RESULTS WITH SIMULATED PRODUCTION COSTS OF ELECTRICITY IN**  
84 **ILLINOIS, AS DR. ROSE SUGGESTS FOR HIS SECOND BENCHMARK?**

85 A. There are many problems with Dr. Rose's use of the production cost analysis reported in  
86 the April 2006 Argonne National Laboratory/University of Illinois (Argonne) study.<sup>2</sup> First, the  
87 report by its own terms is not intended for the kind of use that Dr. Rose pursues. The Argonne  
88 report is very clear in stating that, due to modeling "simplifications" and data limitations, its  
89 results should not be construed as "predictive." Instead, the report concedes that they should be  
90 considered only "descriptive" of whether conditions might obtain in the Illinois market area that  
91 would allow the exercise of market power in 2007.<sup>3</sup> It is also clear (and acknowledged by the  
92 report's authors) that the study does not involve a realistic or current representation of the  
93 regional market structure, transmission configuration, or plant operating conditions. Given that  
94 staleness, it has almost no relevance as a benchmark for understanding recent auction results.

95 One of the key simplifications is that Argonne simulated a geographic region that is limited to  
96 just the state of Illinois or to Illinois plus immediately adjacent states. While such regions may  
97 have been appropriate in 2003 for the purposes of that study, they do not describe the market  
98 area(s) relevant to the auction participants. There are now two very large RTOs serving Illinois  
99 whose geographic scope would be much more relevant to understanding market performance.  
100 When unconstrained by transmission congestion, the PJM RTO serving the ComEd service  
101 territory extends all the way to the Atlantic seaboard and includes roughly seven times as much  
102 generation capacity and load as Illinois alone. The MISO RTO that serves the Ameren territory  
103 is almost as large.

104 Because each RTO commonly dispatches its plants over these large regions and sets a  
105 market-clearing price based on the marginal supplier's bids, the energy price in Illinois will often  
106 depend significantly on the production costs facing generators outside of Illinois, as well as  
107 demand conditions outside of the state. Thus, any analysis that focuses on production costs

---

<sup>2</sup> Argonne National Laboratory and University of Illinois at Urbana-Champaign, "Evaluating the Potential Impact of Transmission Constraints on the Operation of a Competitive Electricity Market in Illinois," April 2006.

<sup>3</sup> Argonne at p. 3 and p. 24.

108 largely within the state of Illinois is likely to produce misleading estimates of the cost of  
109 supplying power in Illinois. (Again, that was not the purpose of the Argonne study, but it is the  
110 purpose to which Dr. Rose would use it.)

111 Second, even if the data and market structures in the Argonne analysis were updated, prices  
112 based on short-run marginal production costs may not be high enough to allow market  
113 participants to recover fixed costs. This would be an unsustainable situation that might cause the  
114 marginal suppliers to not even offer their resource into the market absent other cost recovery  
115 mechanisms. The Argonne report observed this difficulty, noting that of the 22 gencos in the  
116 state, only five had positive operating profits under a price set by production costs, and the  
117 operating margins were not enough to cover development of new resources.<sup>4</sup>

118 Third, and most significantly, the relevant cost of producing power is the foregone opportunity  
119 cost of making spot energy (and capacity and possibly ancillary services) sales in the future or  
120 entering into other bilateral arrangements to sell power. In a large market area such as the PJM  
121 RTO, this will depend on several factors that Dr. Rose dismisses as unimportant to Illinois.  
122 Specifically, the Argonne study uses fuel costs that prevailed in 2002 and 2003. Since that time,  
123 the spot prices of natural gas and coal have both risen dramatically. Dr. Rose avers that this is  
124 not a concern, because Illinois generators do not rely much on natural gas, and the average cost  
125 of the largely coal and nuclear fuel contracts behind the bulk of Illinois generation has not risen  
126 much. However, Dr. Rose's analysis is lacking here for two particular reasons. Most notably,  
127 many suppliers can resell their fuel instead of burning it, indicating that the relevant fuel cost to  
128 consider is the current spot price for the fuel, as opposed to its contracted cost. Dr. Rose also  
129 focuses only on the costs experienced by Illinois generators, when a larger geographic market is  
130 relevant to determining the wholesale electricity prices experienced in Illinois. Much of PJM is  
131 supplied by natural gas-fired generation; the PJM Market Monitoring Report for 2006 states that  
132 gas is on the margin in PJM about 25% of the time.

133 **Q. NOTWITHSTANDING THE INHERENT LIMITATIONS IN USING A**  
134 **PRODUCTION-COST MODEL TO ASSESS THE SOS AUCTION RESULTS, DO YOU**

---

<sup>4</sup> "...many of the companies that were identified as planning the construction of new generating capacity do not show operating profitability in the PC case." Argonne report, p. 83.

135 **CONSIDER THE RESULTS OF THE ARGONNE STUDY TO BE A USEFUL**  
136 **BENCHMARK FOR THE MARGINAL PRODUCTION COSTS AFFECTING ILLINOIS**  
137 **ENERGY PRICES?**

138 A. No, I do not. As mentioned above, the operating costs faced by generators in Illinois are  
139 not the only costs affecting electricity prices in Illinois. One must consider production costs of  
140 those generators that can send power into Illinois, as well as demand conditions outside of  
141 Illinois, and energy costs must be augmented for transmission and ancillary services, capacity,  
142 and risk.

143 More fundamentally, the Argonne-University of Illinois study relies on both outdated data and an  
144 outdated representation of the transmission system (and the administration of the system)  
145 relevant to Illinois. Chairman Box identified these caveats in his statement on how to interpret  
146 and use the study.<sup>5</sup>

147 The Commission, however, is informed that the data and information used in the  
148 study have been superseded and that the study does not reflect the current  
149 operating practices of the PJM and MISO markets. In short, the Illinois electricity  
150 market and transmission system are remarkably different today than when this  
151 study was initially commissioned.

152 In sum, the study needs to be examined within the context in which it was  
153 formulated and executed. Today's transmission system has been upgraded  
154 considerably and the markets in which Illinois finds itself are very different from  
155 what was modeled earlier. Both PJM Interconnection and the Midwest ISO  
156 administer a competitive wholesale market that imposes market monitoring,  
157 mitigation, and rules upon market participants to detect and prevent market power  
158 and other anti-competitive behavior. The Commission acknowledges that the  
159 study's findings and recommendations and its inability to continue needed  
160 analysis on a going-forward basis were influenced by funding and time  
161 constraints.

162 Given that the data and information supporting the findings and recommendations  
163 in this study are superseded and that Illinois utilities now operate in organized  
164 electricity markets that the study did not fully consider, the Commission  
165 acknowledges both the study's value and its shortcomings.

---

<sup>5</sup> See <http://www.icc.illinois.gov/docs/en/061016ecTransICC.pdf>, or <http://www.icc.illinois.gov/en/library.aspx?key=Electricity> under Transmission and Competition, Report, "Commissioners' Transmittal Letter," October 16, 2006.

166 **Q. ARE THERE OTHER FUNDAMENTAL PROBLEMS WITH USING THE**  
167 **RESULTS OF THE ARGONNE STUDY AS A BENCHMARK FOR EVALUATING THE**  
168 **RESULTS OF THE AUCTION?**

169 A. Yes. Many of the problems that make it inappropriate to use spot market energy prices as  
170 a benchmark for evaluating prices in the auction also apply to the use of a production cost model  
171 to simulate spot market energy prices. In particular, the Argonne production costs do not include  
172 costs for capacity or risk adjustments, which are important elements of the load-following, firm,  
173 long-term forward contracts that are bid in the auction. Use of the Argonne model provides a  
174 stale and inaccurate estimate for “oranges” that bears no credible relationship to the price of the  
175 “apples” requirements service sold in the auction.

176 **Q. YOU MENTIONED THAT NON-ENERGY FACTORS AND RISK**  
177 **CONSIDERATIONS WILL BE INCORPORATED IN AUCTION PRICES. HAVE YOU**  
178 **EVALUATED HOW LARGE AN EFFECT THESE MIGHT HAVE?**

179 A. No, I have not done so directly, but I have reviewed and evaluated two sources of  
180 supporting information. First, I have reviewed the ICC Staff report<sup>6</sup> that examined the results of  
181 the September 2006 Illinois auctions. Second, I have compared the Illinois auction results with  
182 the results of similar auctions in New Jersey.

183 The ICC Staff report reviews how the auction prices compare to forward prices at hubs near  
184 Illinois, adjusted for load shape and additional costs of transmission, ancillary services, and  
185 capacity. For the fixed-price ComEd auction products, they find only a 7-12 percent difference  
186 between those adjusted prices and the auction results (and 18-25 percent for the Ameren fixed-  
187 price products). Based on my experience with designing and pricing SOS products, a risk  
188 premium of this magnitude is certainly plausible. The ICC Staff report points to volumetric risk  
189 and other sources of risk as a possible basis for such premiums. The Auction Manager’s report  
190 points to similar sources of risk: “The risks that a bidder faces include the risks of customers  
191 switching due to market conditions, risks of customers returning, weather risks, volatility in fuel  
192 markets, utility credit risk, risk of market changes, and regulatory risk. The small amount to

---

<sup>6</sup> ICC Staff (assisted by Boston Pacific Company), *Post-Auction Report of the Staff*, December 6, 2006.

193 cover the additional services and risks appears to indicate that bidders aggressively competed  
194 down concerns over these risks.”<sup>7</sup>

195 **Q. WHAT DID YOUR COMPARISON TO THE NEW JERSEY AUCTION**  
196 **RESULTS INDICATE?**

197 A. I have examined the results of the New Jersey BGS auction, which uses a similar  
198 descending-clock format to that used in Illinois. Quite simply, the percentage difference  
199 between the auction price and either past spot prices or future energy prices was substantially  
200 lower in the Illinois auction than in the New Jersey auction. As shown in Table 1, the percentage  
201 difference between the auction price and the average LMPs for the corresponding control area  
202 (over the prior 12 months) is lower for the four Illinois utilities than for their New Jersey  
203 counterparts. As shown in Table 2, the same relationship holds when the basis of comparison is  
204 the corresponding futures price. Importantly, the New Jersey auction results have undergone a  
205 regulatory review process where they have been approved as competitive and reasonable,

---

<sup>7</sup> NERA Economic Consulting, “Public Report Presented to the Illinois Commerce Commission,”  
December 6, 2006, p. 128.

206

**Table 1**

**Basic Generation Service Auction Results vs. Load-Weighted LMP in 12 Months Prior to Auction Date**

Distco [1]	Load-Weighted LMP (\$/MWh) [2]	Auction Price (\$/MWh) [3]	% Difference [4]
<b>Illinois</b>			
Central Illinois Light Company	\$53.11	\$64.75	21.9%
Central Illinois Public Service	\$52.06	\$64.75	24.4%
ComEd	\$51.26	\$64.00	24.9%
Illinois Power	\$51.99	\$64.75	24.6%
<b>New Jersey</b>			
Atlantic City Electric Company	\$77.47	\$103.99	34.2%
Jersey Central Power & Light	\$73.83	\$100.44	36.0%
PSEG	\$75.38	\$102.51	36.0%
Rockland Electric Company	\$74.77	\$111.14	48.7%

Sources and Notes:

[1]: IL: Auction to supply Jan-07 - May-09 opened on 9/5/06.

NJ: Auction to supply June-06 - May-09 opened on 2/6/06.

[2]: IL: Eligible fixed-price load-weighted LMP for 9/5/05 - 9/4/06.

NJ: Eligible fixed-price load-weighted LMP for 2/6/05 - 2/5/06.

[3]: IL: [http://www.illinois-auction.com/resources/ruling/Auction\\_Manager\\_Public\\_Post-Auction](http://www.illinois-auction.com/resources/ruling/Auction_Manager_Public_Post-Auction)

NJ: [http://www.bgs-auction.com/documents/2006\\_BGS\\_Auction\\_Results.pdf](http://www.bgs-auction.com/documents/2006_BGS_Auction_Results.pdf)

[4]: [3]/[2] - 1.

207

208

**Table 2**

**Basic Generation Service Auction Results vs. Congestion-Adjusted Futures Prices**

Distco [1]	Congestion- Adjusted Futures Price (\$/MWh) [2]	Auction Price (\$/MWh) [3]	% Difference [4]
Illinois			
Central Illinois Light Company	\$51.89	\$64.75	24.77%
Central Illinois Public Service	\$50.42	\$64.75	28.41%
ComEd	\$51.46	\$64.00	24.37%
Illinois Power	\$50.53	\$64.75	28.14%
New Jersey			
Atlantic City Electric Company	\$75.62	\$103.99	37.52%
Jersey Central Power & Light	\$71.09	\$100.44	41.28%
Public Service Electric and Gas	\$74.40	\$102.51	37.79%
Rockland Electric Company	\$74.89	\$111.14	48.41%

Sources and Notes:

[1]: IL: Auction to supply Jan-07 - May-09 opened on 9/5/06.

NJ: Auction to supply June-06 - May-09 opened on 2/6/06.

[2]: IL: Congestion-adjusted N. Illinois hub futures price weighted by 2006 monthly loads.

NJ: Congestion-adjusted PJM West hub futures price weighted by 2006 monthly loads.

[3]: IL: [http://www.illinois-auction.com/resources/ruling/Auction\\_Manager\\_Public\\_Post-Auction\\_R](http://www.illinois-auction.com/resources/ruling/Auction_Manager_Public_Post-Auction_R)

NJ: [http://www.bgs-auction.com/documents/2006\\_BGS\\_Auction\\_Results.pdf](http://www.bgs-auction.com/documents/2006_BGS_Auction_Results.pdf)

[4]: [3]/[2] - 1.

209

210 **IV. DR. ROSE’S SUGGESTED USE OF EITHER A “RESERVE” OR**  
 211 **“REFERENCE” PRICE IN THE AUCTION IS BASED ON FAULTY LOGIC**  
 212 **AND FRAUGHT WITH DIFFICULTIES.**

213 **Q. AT THE END OF HIS TESTIMONY, DR. ROSE SUGGESTS THAT USING**  
 214 **EITHER WHOLESALE ENERGY PRICES OR ENERGY PRODUCTION COSTS**  
 215 **WOULD BE APPROPRIATE FOR SETTING EITHER A STARTING PRICE OR A**  
 216 **“RESERVE” PRICE IN THE AUCTION. DO YOU AGREE?**

217 **A.** No, I do not. He offers no guidance about how he would implement the use of such  
 218 benchmarks, and had he done so he might have seen that there are intrinsic problems with  
 219 imposing an announced *ex ante* “reserve” price in the Illinois SOS supply auction. Moreover, it

220 is purely infeasible to impose a “reserve” (or starting) price at either marginal production cost or  
221 the wholesale market price as Dr. Rose suggests.

222 A key reason to use an auction for these procurements is that different participants will have  
223 differing opinions about what the appropriate risk-adjusted price should be for the complex  
224 electric service product that is being supplied by the bidders. This disparity of opinion means  
225 that the auction winners typically are those entities who believe future energy prices will be  
226 lower than what their competitors believe, or who perceive the auction product to have lower  
227 risks than their competitors do. In this context, the imposition of a publicly stated reserve price  
228 (or “low” starting price) is by its very nature, potentially problematic. If the Auction Manager’s  
229 (or other responsible analyst’s) opinion as to future market prices and risk should produce a  
230 reserve price that is low relative to most market participants’ beliefs about a fair price, then the  
231 auction may not be fully subscribed.

232 In this case, either another auction will be needed, alternative bilateral contracting will occur  
233 instead, or substantial purchases will be made on the potentially volatile spot market. Some  
234 potential bidders might choose not to participate on the presumption that they can negotiate a  
235 bilateral deal after the failed auction on better terms than would have arisen under the auction’s  
236 competition. From the utility’s perspective, a failed auction puts it in a nearly untenable position  
237 of having to buy power under conditions where replacement prices are likely to be higher than  
238 have been deemed acceptable.

239 On the other hand, if the reserve price is set at a high level relative to market participants’  
240 expectations, this also could be problematic depending on the perceived use of the reserve price.  
241 If the price was deliberately set high to attract participation, then this is already what is being  
242 done. Bids in the auction ticked down significantly from the starting prices over many rounds of  
243 bidding. A high starting price set in this fashion does not convey much information to the  
244 bidders regarding the Auction Manager’s expectation of an appropriate auction price outcome.

245 However, Dr. Rose apparently suggests that a reserve price be used to “signal” participants what  
246 an appropriate auction outcome could be. In this situation, an inadvertently high reserve price  
247 (which could easily occur due to the complexity of measuring and pricing the elements involved

248 in providing SOS service) could lead to a higher auction price than might have resulted if there  
249 had been no reserve price at all. Consequently, it is inadvisable to use a pre-announced reserve  
250 price in the manner that Dr. Rose suggests. Instead, the current situation where the Auction  
251 Manager establishes a liberal but clearly non-binding starting price for the auction (in  
252 consultation with ICC staff) appears to be the best approach.

253 **Q. IS IT YOUR VIEW THAT NO PRICES ARE USEFUL AS REFERENCE POINTS**  
254 **FOR APPRAISING AND APPROVING THE AUCTION PERFORMANCE?**

255 A. No, I believe that price comparisons can help the Auction Manager understand the  
256 performance of the auction and can help breed confidence in the legitimacy of its results.  
257 However, I do not believe there is any simple or single metric that should be used. First and  
258 foremost, I would look at the conduct of the auction itself (which is already a key focus of the  
259 Auction Manager). If that comports with auction rules and involves active, persistent and  
260 aggressive bidding unaffected by process problems or external events, then I would be strongly  
261 inclined to accept the results rather than second guess the results against my own view of  
262 reasonable prices. Such second-guessing is greatly at risk of being ill-informed, despite good  
263 intentions and analytic sophistication, and its occurrence would be very likely to stifle ongoing  
264 interest in participating in the auctions. Thus, one auction failure (due to rejected results) is  
265 likely to lead to future failures and the gradual unraveling of the entire process.

266 Second, I would evaluate the auction in comparison to many metrics, including a range of risk-  
267 adjusted, retail-adjusted forward price estimates, past auction prices, auction prices elsewhere for  
268 similar products (such as the New Jersey BGS auction), and relative prices within the auction.  
269 If there are unexplained anomalies, I would use these to focus more detailed investigations of  
270 any problems surrounding the products in question. Barring a finding of a specific problem  
271 within the conduct of the auction itself, I would then direct the attempts to repair and improve the  
272 situation on modified terms for the next auction.

273 **Q. SO, WOULD YOU RECOMMEND THAT DR. ROSE'S PROPOSED**  
274 **BENCHMARKS BE USED AS "REFERENCE" PRICES IN DECIDING WHETHER TO**  
275 **APPROVE OR DISAPPROVE THE AUCTION RESULTS AFTER THE FACT?**

276 A. I certainly would not, for all of the reasons that I have mentioned above. Production  
277 costs and past energy prices are inappropriate benchmarks for “judging” the auction because  
278 auction prices are related to expectations of future energy, capacity, transmission, and ancillary  
279 services prices. An additional adjustment also must be made to account for volumetric, fuel  
280 price, electricity price, regulatory, and other risks.

281 Moreover, it is virtually certain that after-the-fact rejection of auction results that occurred solely  
282 or even primarily due to comparisons to a reference price would tend to drive participants out of  
283 future auctions. Bidders incur significant preparation costs and organizational efforts to analyze  
284 and agree on how much they are willing to sell, at what price. I would expect them to be less  
285 willing to participate if there was a significant likelihood that the auction results would be  
286 rejected upon failure to satisfy an arbitrary price benchmark.

287 **V. DR. ROSE HAS NOT PROVIDED ANY COMPELLING EVIDENCE TO**  
288 **SUGGEST THAT THE AUCTION IS AN INEFFECTIVE MECHANISM FOR**  
289 **PROCURING POWER TO MEET SOS LOAD OBLIGATIONS, NOR HAS HE**  
290 **USED A REASONABLE APPROACH TO ASSESS THE AUCTION’S**  
291 **COMPETITIVENESS.**

292 **Q. AT PAGE 10 OF HIS REPORT, DR. ROSE INDICATES HE SUSPECTS THAT**  
293 **THERE WAS INSUFFICIENT OR IMPROPER COMPETITION IN THE RECENT**  
294 **AUCTIONS. HAS HE CORRECTLY ANALYZED THIS POSSIBILITY?**

295 A No, he is relying almost entirely on inferences drawn from his reliance on inappropriate  
296 benchmarks. As just explained, those reference points are not well-suited to this task, so his  
297 concerns are not valid. Moreover, Dr. Rose’s proposed benchmarks show some confusion  
298 between assessing the competitiveness of the auction versus assessing the competitiveness of the  
299 wholesale market. The use of a cost-based or spot-energy pricing model to assess the  
300 competitiveness of the SOS procurement auction is misplaced because, as mentioned previously,  
301 bidding into the SOS auction will be influenced by the participant’s expectations regarding the  
302 prices of future spot or bilateral power sales. Of course, these bids also must be adjusted to take

303 into account the costs of transmission, capacity, and ancillary services, as well as the risk  
304 associated with the slice-of-load SOS product.

305 Dr. Rose also expresses concern that inadequate wholesale competition could be leveraged into  
306 the auction outcome. There is no evidence that there is inadequate competition in the wholesale  
307 market underlying the auction. The PJM and MISO market monitors attend carefully to this  
308 possibility, and they have enforcement remedies for market manipulation or the exercise of  
309 significant market power, if it should occur.

310 **Q. HAS DR. ROSE IDENTIFIED ANY NOTABLE DESIGN FLAWS IN THE**  
311 **ILLINOIS AUCTION OR EXPLAINED WHY AN AUCTION IS NOT AN EFFICIENT**  
312 **POWER PROCUREMENT MECHANISM WHEN COMPARED TO OTHER**  
313 **ALTERNATIVES?**

314 A. No, he has not. Given the ease of entering the Illinois auction, and that the auction  
315 effectively represents a secondary market for trading electric power in addition to bilateral  
316 contracting and the use of the PJM/MISO spot markets, there are strong reasons to presume that  
317 the auction is likely to be competitive, barring any evidence of obvious misconduct. Dr. Rose  
318 has provided no evidence whatsoever of auction misconduct.

319 In fact, substantial economic literature indicates that auctions are efficient procurement  
320 mechanisms, and they are used ubiquitously in other types of markets (*e.g.*, on eBay to sell many  
321 types of goods, by the Federal Communications Commission to sell telecomm spectrum).  
322 Moreover, the Illinois descending-clock auction is almost identical in its design to the auction  
323 that has been used successfully in New Jersey to purchase electric power to meet SOS load  
324 obligations.

## 325 **VI. CONCLUSION**

326 **Q. CAN YOU SUMMARIZE YOUR OVERALL REACTIONS TO DR. ROSE'S**  
327 **ANALYSIS AND POLICY SUGGESTION?**

328 A. I find that Dr. Rose has applied benchmarks for assessing the performance of the Illinois  
329 auctions that are improper and lead to erroneous conclusions. Moreover, I do not believe it is  
330 appropriate to use price benchmarks as the primary or sole criterion for judging the auction's

331 success. Instead, assessments of the extent of participation and competitive activity in the  
332 auction should be used to help interpret the results and identify opportunities for improving  
333 future auctions.

334 I also find that there is a potential danger to his proposed use of benchmarks as a reserve price,  
335 in that doing so could inadvertently discourage participation in future auctions and force Illinois  
336 utilities to fall back on contingent plans to procure power through alternative bilateral  
337 arrangements or spot purchases at potentially higher or more volatile prices.

338 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

339 A. Yes, it does.