STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

ILLINOIS COMMERCE COMMISSION	:	
On Its Own Motion	:	
	:	
Investigation of Ricer 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	:	

DIRECT TESTIMONY OF KENNETH ROSE
ON BEHALF OF
THE PEOPLE OF THE STATE OF ILLINOIS

AG Exhibit 1.0

MARCH 15, 2007

Q. Please state your name and business address.

A. My name is Kenneth Rose. My address is P.O. Box 12246, Columbus, Ohio 43212-0246.

Q. For whom are you testifying in this proceeding?

A. I am testifying on behalf of the People of the State of Illinois through the Office of the Attorney General of the State of Illinois.

Q. By whom are you employed and in what position?

A. I am an independent consultant and self-employed. As a consultant, my work has been in the public sector or educational in nature. Public sector work has been for public utility commissions, other state agencies, and the United States government. Clients have included the Virginia State Corporation Commission, the Ohio Office of the Inspector General, and the U.S. Department of Energy. I also work with the Institute of Public Utilities at Michigan State University, where I lecture and develop educational materials on electric industry topics.

Q. Have you previously testified before the Illinois Commerce Commission?

A. Yes, I submitted testimony in the ICC's procurement proceeding.

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to recommend appropriate benchmarks for the Commission to use to evaluate auction results. I recommend that the Commission assess results of electricity procurement processes by comparing those results with wholesale market prices and production costs of electricity in Illinois. I also discuss whether changes could be made to the procurement process that would bring procurement prices in line with wholesale market prices and the cost of producing electricity.

Q. What are your major conclusions?

A. I conclude that both wholesale market prices and generation costs are appropriate benchmarks for the Commission to use to evaluate the results of an electricity

procurement process. When the 2006 auction results are compared with the wholesale market prices in northern Illinois and with production cost in the state, I find that the 2006 auction prices were considerably above both the wholesale price and cost of generation in Illinois.

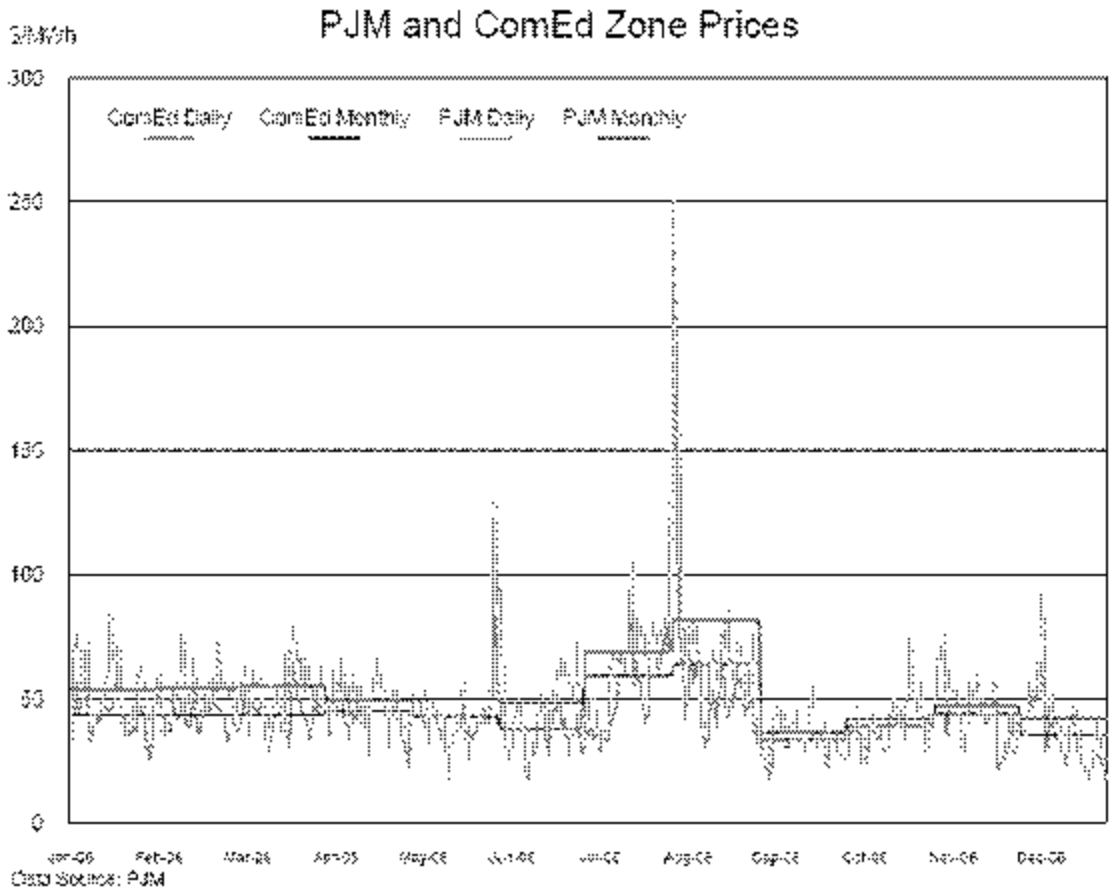
Q. Are wholesale market prices an appropriate benchmark to use to evaluate the auction results?

A. Yes, it is an important factor to consider, but as will be discussed, others factors should be considered as well.

Q. Please explain how wholesale market prices can be used to evaluate the energy component of the auction results?

A. Load-weighted wholesale prices in the ComEd zone of PJM should be used as a basis of comparison. This is the Illinois area of the wholesale market of the PJM Regional Transmission Organization ("RTO"). Figure 1 shows both PJM (for the entire RTO) and ComEd daily and monthly prices for 2006. As can be seen in the graph, the daily and monthly prices generally move in tandem with each other. However the ComEd zone prices are consistently lower than the overall PJM price.

Figure 1



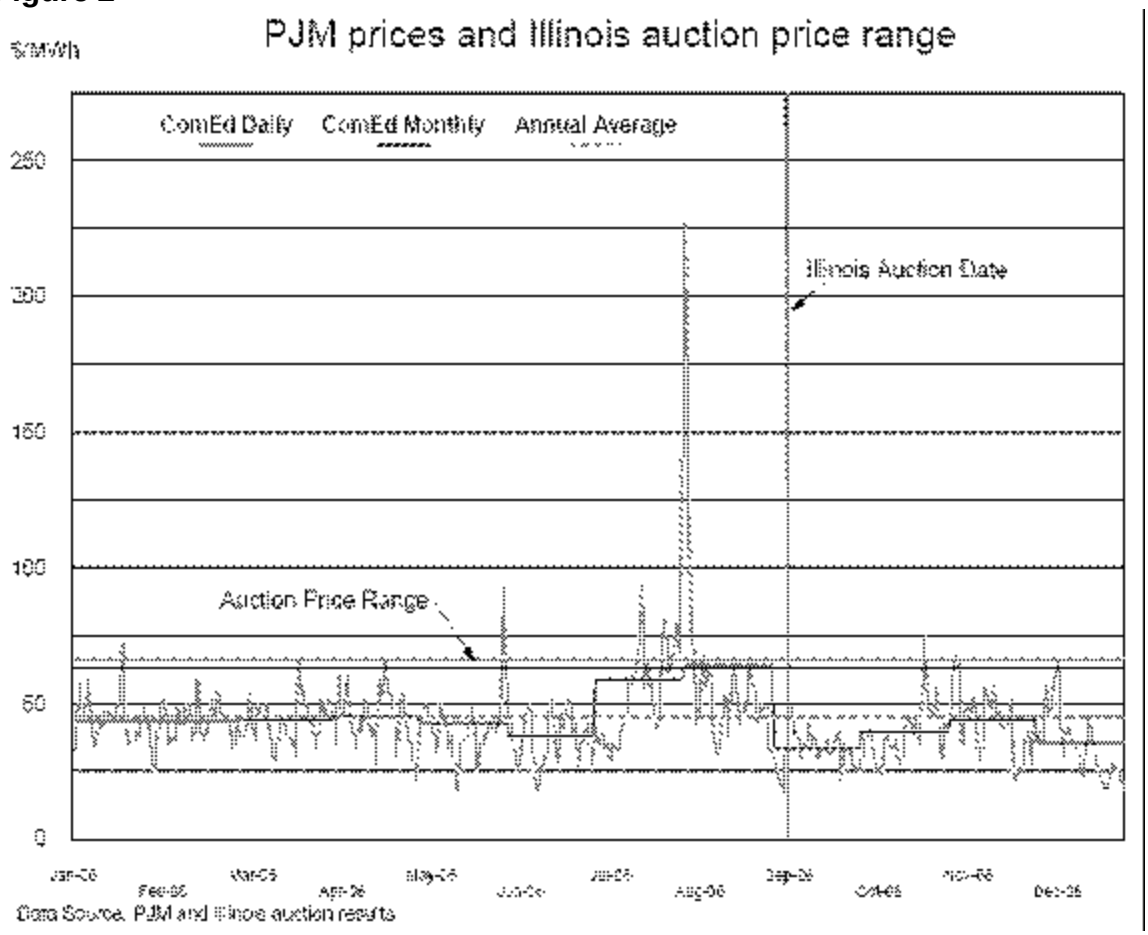
Q. How do the 2006 auction clearing prices compare with the ComEd zone of PJM?

A. The 2006 auction clearing prices are 40 percent or more above the 2006 wholesale market prices. Figure 2 shows the ComEd daily and monthly prices with the annual average for the ComEd zone. The clearing prices in the 2006 Illinois fixed-price auction for small and medium ComEd and Ameren customers is shown by the heavy horizontal green and blue lines in Figure 2. The red vertical line in this figure marks when the auction was held in early September 2006.

The Illinois auction clearing prices are well above the load-weighted average annual price of $45/MWh in the ComEd zone. That is, 2006 wholesale prices were 40.6 - 46.6% above the small and medium customer auction price range of $63.33/MWh to $66.05/MWh. Each monthly average is below the auction price range except August, which was only about 50 cents/MWh higher than the lowest auction price. Only 26 days had a weighted average price that exceeded the lowest auction price, or stated differently,

93 percent of the weighted average daily prices were below the auction price range. On 62 days during 2006, the daily average price was less than half the lowest auction price.

Figure 2



Q. Is similar wholesale market price data available from the Midwest Independent System Operator?

A. A similar comparison can be made.

Q. Is the cost of generating electricity an appropriate benchmark to use to evaluate auction results?

A. Yes. Using the cost of generation provides a means to evaluate the performance of the auction and the wholesale market and how they compare to a competitive outcome.

Q. Is production cost data available to be used as a benchmark?

A. Yes. Generation cost data is available in an analysis conducted by researchers at Argonne National Laboratory and the University of Illinois at Urbana-Champaign that was sponsored by the Illinois Commerce Commission.[1] In this report, the analysis is focused on the power system in the state of Illinois and modeled how it was expected to look in 2007. The study was begun in 2002 and was revised several times before it was released in 2006. A full copy of the report (and related documents) can be found at: http://www.dis.anl.gov/ceeesa/programs/illinois_emcas.html

The Argonne/University of Illinois analysis calculated the locational marginal prices (LMPs) for sub-areas or zones in the Illinois power system. In the "Production Cost" scenario, LMPs were calculated based on the dispatch of the system for individual generation resources using the generator's production cost. The "Case Study Assumptions" of the production costs included fuel, variable operating and maintenance, and fixed operating and maintenance costs. This did not include capital costs or other costs such as taxes.

Q. What did the Argonne/University of Illinois study conclude regarding the production cost of electricity?

A. For the Production Cost scenario using their Case Study Assumptions, the load-weighted LMPs for the 18 zones calculated ranged from $20.0/MWh to $22.4/MWh. They graphed the load-weighted LMPs for each zone to show the frequency distribution of the LMPs. This graph is reproduced here as Figure 3.

[1] "Evaluating the Potential Impact of Transmission Constraints on the Operation of a Competitive Electricity Market in Illinois," Argonne National Laboratory and University of Illinois at Urbana-Champaign, April 2006.

Figure 3

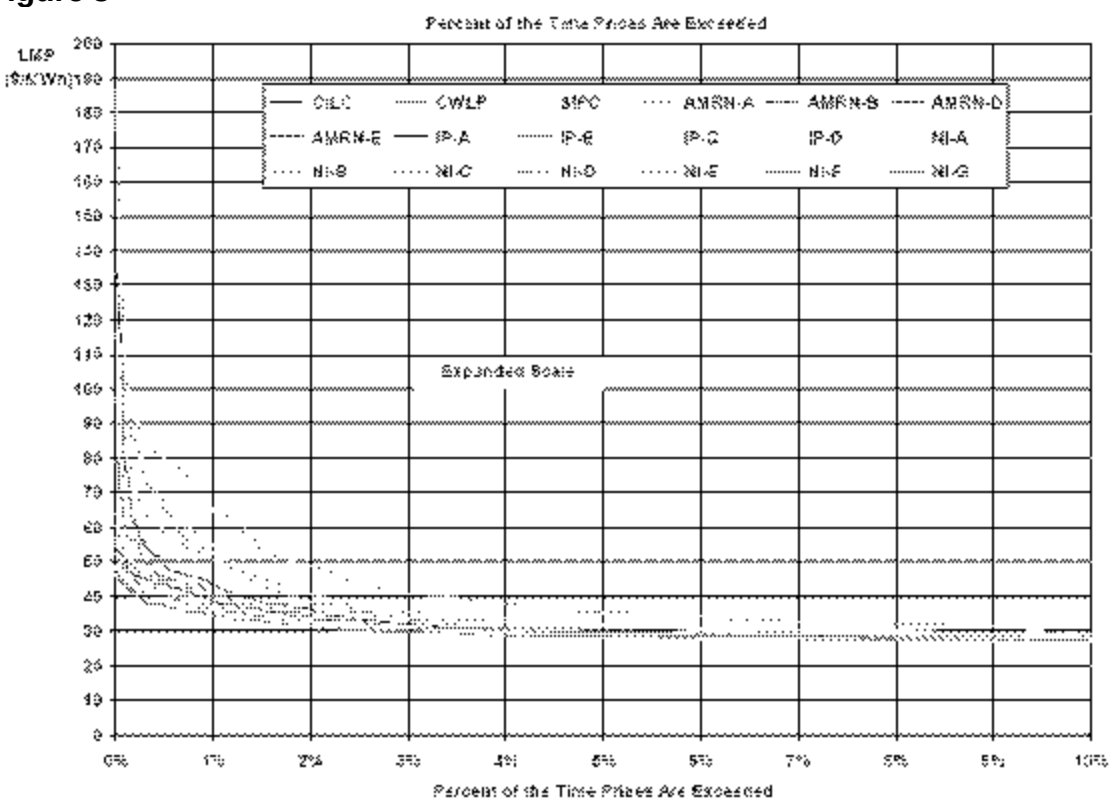


Figure 4.1.4-2 PC Case (Case Study Assumptions) Frequency Distribution of Load-Weighted LMPs by Zone

The graph shows that 90 percent of the time, the LMPs are below $30/MWh and 95 percent of the time they are below $40/MWh. Only about one percent of the time are all the zones greater than $65/MWh, or in the auction's fixed price, small to medium customer price range. That's about 88 hours in the year. Only a small fraction of one percent of the time are prices above $100/MWh in all the zones.

Q. Is the 2002-2003 data used in the Argonne/U of I study valid today?

A. The biggest change since 2002-2003 is the change in some fuel prices. However, prices for the types of fuel used in Illinois have remained fairly constant.

Table 1 shows the types of fuel used to generate electricity in Illinois. Over 95 percent of Illinois' generation is coal-fired or nuclear in 2005.[2] Only 3.67 percent of the state's total generation is natural gas-fired.

[2] Energy Information Administration, "Net Generation by State by Type of Producer by Energy Source" (EIA-906).

TABLE 1

Illinois generation by energy source, 2005

Energy Source	Generation (MWh)	Percent
Coal	92,264,272	47.52%
Hydroelectric Conventional	123,037	0.07%
Natural Gas	7,116,309	3.67%
Nuclear	93,263,001	48.04%
Other	0	0.00%
Other Gases	199,798	0.10%
Other Renewables	822,715	0.42%
Petroleum	326,024	0.17%
Total	194,120,146	100.00%

Data Source: DOE/EIA

Coal costs have increased by about six percent from 2000 to 2006, increasing from $1.18/MMBtu to $1.25/MMBtu.[3] During this time period, nuclear fuel costs have changed even less. Natural gas prices have increased. Although natural gas prices increased from the $2.89/MMBtu cited in the Argonne/U of I study to $6.9/MMBtu in 2006[4], the impact on generation costs in Illinois is very small because, as noted above, only 3.67 percent of the state's total generation is natural gas-fired.

Q. How do these fuel cost changes affect the LMPs calculated in the Argonne/U of I study?

A. Adjusting the highest average LMP of $22.4/MWh by the increase in the cost of coal raises the LMP to $23.7/MWh, the lowest price in the auction's fixed price section is still 167 percent higher than this coal-adjusted price. If the percentage increase in natural gas is used to adjust the highest LMP zone price, (an extremely unlikely occurrence since the price of natural gas impacts less than four percent of the generation in Illinois) however, even with the load-weighted LMP increased to $53.5/MWh, the lowest auction price would still be 18 percent higher than the LMP. It is important to note that this scaling of the LMP in effect not only adjusts for fuel costs, but affects the fixed and variable O&M

[3] Energy Information Administration, "Electric Power Monthly," February 2007.

[4] Energy Information Administration, "Electric Power Monthly," February 2007.

cost components as well, which are not likely to have increased in the same proportion. This is an unlikely or "worst case" upper bound.

Q. Are there costs besides energy costs to consider? If so, how much do these increase the weighted-average annual price for the PJM ComEd zone?

A. The costs of capacity, transmission, and ancillary services must also be considered. For capacity, the ICC staff has used the capacity credit prices in PJM that were used in the "rate prisms" for the auction by ComEd and Ameren to estimate capacity costs. When the ICC staff converted this capacity price (expressed as $/MW-day) to $/MWh, they estimated $1.12 per MWh for ComEd's CPP-B class and $0.98 per MWh for Ameren's BGS-FP class. They then note:

> . . . in comparison to the earlier-mentioned proxy for energy costs, capacity costs appear to be a relatively small component of the overall expected cost of being a tranche supplier in the Illinois Auction.[5]

If the higher capacity estimated price is added to the weighted-average annual price for the PJM ComEd zone, the lowest auction clearing price is still 37 percent higher than the wholesale market price of electricity.

For the transmission and ancillary service costs that suppliers in the auction incur, the ICC Staff notes that Ameren's rate prism includes ancillary services cost estimates of $1.25 per MWh and the ComEd's prism includes ancillary services cost estimates of $1.76 per MWh.[6] Again, if the weighted-average annual price for ComEd is added to the larger capacity price and the ComEd transmission and ancillary service costs, it adds up to $47.9/MWh. The lowest auction price is still 32 percent higher than this . Of course, the markup above the cost estimate from the Argonne/U of I analysis would be much larger, depending on the fuel cost adjustment used.

[5] ICC Staff Report, p. 15.

[6] ICC Staff Report, p. 16. The report actually states "$1.76 per MW" – but it is assumed that they meant it to be "MWh."

Q. Can the difference between the auction clearing price and the wholesale market price be explained as a "risk premium"?

A. No. The large difference between the auction clearing prices and wholesale market prices cannot be explained away as a "risk premium" for that reflects load changes (increase or decrease), market uncertainty, and regulatory risks. The fact that there is also a large difference between auction clearing prices and production costs suggests that there may be another factor involved: some suppliers' may have the ability to mark up the wholesale price and auction price above a competitive level.

Q. Would eliminating load caps help to bring auction clearing prices more in line with wholesale prices and the production costs?

A. This would not be likely to help much since suppliers with market power will affect the price either directly or indirectly through sales to other suppliers. For example, if a supplier with market power in the wholesale market were to sell to another supplier that does not have market power but then participates in the auction, the auction price will reflect that first supplier's market power -- in either case, whether they participated in the auction directly or sold power to the second supplier. There could be a benefit to retail consumers from not having an additional markup from the second supplier. However, it would not solve the problem of suppliers with market power being able to mark the price up significantly above cost.

Q. Would changing the length of contracts offered through the auction help to bring auction clearing prices more in line with wholesale prices and the production costs?

A. The results from the Illinois auction suggests that there is not a considerable difference in the price outcome for the different contract lengths.

Q. Would a sealed bid procurement process help to bring auction clearing prices more in line with wholesale prices and the production costs?

A. Some states use this approach (Maine for example), but it is not clear if it has yielded results that are significantly different than the Illinois auction approach. Allowing the

direct procurement of power through a sealed bidding process may result in lower prices, if direct negotiation with suppliers is used to determine a price.

Q. Would holding more frequent auctions help to bring auction clearing prices more in line with wholesale prices and the production costs?

A. Varying the frequency of the auction may not change the outcome significantly, but allowing for changes in the timing of the auction could help to reduce prices.

Q. Could the benchmarks be used to set a starting price or a "reserve price" in the auction?

A. Yes. The ICC may consider a reserve price based on the wholesale market price. This would indicate that, if the auction is unable to secure sufficient supply at that price, the distribution company or some other entity could purchase power on the wholesale market, at least for short term purchases.

Q. Does this conclude your testimony?

A. Yes.