2000 Neutral Fact-Finder's Calculation of Market Values for Electric Power and Energy for the State of Illinois

Prepared Pursuant to the Electric Service Customer Choice and Rate Relief Law of 1997

August 15, 2000
Revised Final

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To the State of Illinois:

Pursuant to the Electric Service Customer Choice and Rate Relief Law of 1997, on January 26, 2000, I was appointed by the Illinois Commerce Commission (the "Commission") as the neutral fact-finder for the year 2000. As the neutral fact-finder, I am required to calculate market values for electric power and energy in the State of Illinois.

The law requires market values to be calculated based upon a review of the contract summaries submitted by various electric utilities and alternative retail electric suppliers. Additionally, the neutral fact-finder is to determine appropriate aggregations of market values, such as seasonal rates, peak and off-peak rates and levels of firmness consistent with the requirements of the Act.

This report includes my findings, as the neutral fact-finder, of market values for the year 2001. The report also summarizes the characteristics of the contract summaries submitted and outlines the processes employed to determine market values.

The report submitted with my letter dated August 10, 2000 reflected calculations that were inconsistent with the determinations, as described in the narrative of the report, that the neutral fact-finder had made as to the weight to be accorded data in certain contract summaries. The calculations in this revised final report are consistent with the determinations made by the neutral fact-finder.

Very truly yours,

Peter A. Hoffman

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Executive Summary

The Electric Service Customer Choice and Rate Relief Law of 1997, which amended the Public Utilities Act (the "Act"), requires the Illinois Commerce Commission (the "Commission") to appoint a neutral fact-finder to calculate market values for electric power and energy. For the year 2000, the Commission appointed Peter A. Hoffman, a Partner at Deloitte & Touche LLP ("Deloitte & Touche"), as the neutral fact-finder.

The neutral fact-finder is charged with determining the market value for electric power and energy in the State of Illinois based upon a review of contract summaries submitted by various electric utilities and alternative retail electric suppliers. According to the Act, market values are to be calculated by the neutral fact-finder for the year 2001 and, to the extent that the contract summaries include a sufficient number of actual contracts to represent a viable market for electric power and energy in subsequent years, for the years 2002 through 2005. The neutral fact-finder is also charged with determining appropriate aggregations and representations of market values, such as seasonal rates, peak and off-peak rates and levels of firmness consistent with the requirements of the Act. This report sets forth the findings of the neutral fact-finder, summarizes the characteristics of the contract summaries submitted and describes the processes employed to determine market values.

Based upon a review of the data from the 5,953 contracts that were summarized in the contract summaries that were submitted, the neutral fact-finder calculated market values of electric power and energy. All market values were expressed on a dollar per megawatthour ($/MWH) basis with no separately stated capacity values. Due to the minimal number of contract summaries for non-firm power, market values were calculated for firm power only. The market values are statewide values with no geographic differentiation. The neutral fact-finder concluded that there are not sufficient contracts to represent a viable market in the years beyond 2001 and did not calculate market values for those years.

The neutral fact-finder, in coordination with the Staff of the Illinois Commerce Commission (the "Staff"), selected certain contracts to be audited by the Staff and assisted the Staff in developing procedures for auditing the information provided to the neutral fact-finder in the form of contract summaries. The neutral fact-finder reviewed the audit results, initiated numerous information requests and conducted follow-up interviews with certain respondents to such requests. Each respondent was required to include a written representation signed by a senior officer of the corporation that the information submitted to the neutral fact-finder was complete, accurate and consistent with the requirements of the Act.

These efforts were intended to provide assurances as to the accuracy and completeness of the information provided to the neutral fact-finder. However, as provided for in the Act, the neutral fact-finder does not have access to contracts and therefore must rely upon the information provided by the respondents in the contract summaries, their written representations regarding the information and the audits of the Staff to verify the completeness and the accuracy of the information. Accordingly, this report should be read with the understanding that the neutral fact-finder legally could not and did not directly verify the information provided by the respondents.

The market value findings in this report are based exclusively, as required by the Act, upon the information provided in the contract summaries. Many of the contracts utilized to determine market values were entered into in late 1999 or before and therefore may be viewed as somewhat dated. Given the vintage of many of the contracts, the neutral fact-finder makes no representations regarding the extent to which the market values expressed therein are consistent with current or future market prices.

Table 1 on page 16 reports the market values of power and energy and the quantities of energy in each period for which market values were calculated.

The Deloitte & Touche Team

Peter A. Hoffman, Partner, was the neutral fact-finder, with whom all final decisions on the determination of market values rested.

Robert Zaegel, Partner, who serves as Deputy National Audit Partner for Public Utilities, served as the Advisory Partner and contributed to all phases of the project.

Michael Ambrosio, a Director in our Energy and Telecommunications Group, served as the Project Director and provided regulatory and market analysis.

Glenn Meyers, a Senior Manager in our Energy and Telecommunications Group, developed the methodologies and data analysis techniques.

James A. Nappi, a Senior Manager in our Energy and Telecommunications Group, served as the Project Manager overseeing the day to day project activities.

Brian Boufarah, a Manager in our Energy and Telecommunications Group, supported the project team.

Maureen Martin, Valerie Smith, Stanley Wray and Matthew Stasik organized and analyzed the data that ultimately resulted in the generation of market values and provided daily support.

Introduction

The State of Illinois Electric Customer Choice and Rate Relief Law of 1997 effected several changes to the Public Utilities Act (the "Act"). The Act provides for a phase-in of customer choice that commenced for certain customers in October 1999. The Act gives utilities an opportunity to recover transition charges (as defined in the Act) starting in 1999 and gives certain delivery service customers an option to purchase electric power and energy from the utility. Both transition charges and power purchase option charges are based in part on the market value of power and energy. Section 16-110(b) of the Act provides in part that:

> "… a non-residential delivery services customer that is paying transition charges to the electric utility shall be permitted to purchase electric power and energy from the electric utility at a price or prices equal to the sum of (i) the market values that are determined for the electric utility in accordance with Section 16-112 and used by the electric utility to calculate the customer's transition charges and (ii) a fee that compensates the electric utility for any administrative costs it incurs in arranging to supply such electric power and energy."

Section 16-112(a) of the Act requires that the market value to be used in the calculation of transition charges shall be determined in accordance with either:

i. "… a tariff that has been filed by the electric utility with the Commission … that provides for a determination of the market value for electric power and energy as a function of an exchange traded or other market traded index, options or futures contract or contracts applicable to the market in which the utility sells, and the customers in its service area buy, electric power and energy, or

ii. "… in the event no such tariff has been placed into effect for the electric utility, or in the event such tariff does not establish the market values for each of the years specified in the neutral fact-finder process … a tariff incorporating the market values from the neutral fact-finder process."

On January 26, 2000, the Commission appointed Peter A. Hoffman, a Partner at Deloitte & Touche LLP ("Deloitte & Touche"), as the neutral fact-finder for the year 2000. This report outlines the findings of the neutral fact-finder and the processes utilized to determine the market values for electric power and energy in the State of Illinois.

Statement of the Task

The neutral fact-finder is charged with determining the market value for electric power and energy in the State of Illinois based on the information submitted by the respondents. The neutral fact-finder shall determine appropriate aggregations of market values, such as peak and off-peak rates, geographic markets and levels of firmness. The market values will be determined consistent with the requirements of the Act.

The neutral fact-finder shall determine the market value for electric power and energy for calendar year 2001. The market value for electric power and energy is based exclusively, as required by the Act, upon a review of information included in the contract summaries submitted by respondents pursuant to the Act. To the extent that the contract summaries include a sufficient number of actual contracts to represent a viable market for the sale and delivery of electric power and energy in subsequent years, the neutral fact-finder is also charged with determining the market value for electric power and energy for the years 2002 through 2005.

Protocols, Confidentiality and Staff Audit

Protocols for Communicating with the Neutral Fact-Finder

Protocols were developed to address communications between Deloitte & Touche partners, principals and employees, on the one hand, and interested parties, on the other. The protocols prohibit any direct communication between the neutral fact-finder or his staff and any interested party. All requests for information were made through the Staff of the Illinois Commerce Commission (the "Staff"). These rules were designed to preserve the integrity of the process by prohibiting any party from unduly influencing or attempting to influence the neutral fact-finder.

The neutral fact-finder issued several requests for information that the Staff forwarded to the appropriate utility or alternative retail electric supplier. The Staff arranged for several three-way teleconferences among the persons responsible for completing the contract summary forms, the Staff and the neutral fact-finder.

Confidentiality

Section 16-112(j) of the Act states in part:

> "The summaries described in subsection (c) of this Section and each contract shall be accorded confidential and proprietary treatment and their review shall be subject to the provisions of Section 4-404 and 5-108 of this Act, and the contract between the Commission and the neutral fact-finder shall contain provisions obligating the neutral fact-finder to comply with such Sections."

The contract between the Commission and Deloitte & Touche requires that confidential information obtained by the neutral fact-finder be kept in a secure location and that no copies of the information be made, except as needed to perform the work required under the contract. The neutral fact-finder has agreed not to use the information for any purpose other than preparing the final report. The neutral fact-finder has complied with the Act and the contract with the Commission with regard to confidentiality.

Staff Audit of Contract Summaries

Section 16-112(j) of the Act states in part:

> "The Commission shall have access to all contracts described in subsection (c) of this Section and shall perform such audits as it and the neutral fact-finder deem necessary to ensure the accuracy of the summaries submitted to the neutral fact-finder."

Efforts were made to ensure that the information submitted was complete, accurate and in compliance with the Act. These efforts included selecting certain contracts to be audited by the Staff, conducting an auditor training workshop and assisting the Staff in developing procedures for auditing the information provided to the neutral fact-finder. The neutral fact-finder reviewed the audit results, issued several information requests and conducted follow-up interviews with respondents. Each respondent submitted a representation from a

senior officer that the information submitted to the neutral fact-finder was complete, accurate and consistent with the requirements of the Act.

These efforts were intended to provide assurances as to the accuracy and completeness of the information provided to the neutral fact-finder. However, as provided for under the Act, the neutral fact-finder must rely upon the representations of the respondents and the audits of the Staff to verify the accuracy and completeness of the information. Accordingly, this report should be read with the understanding that the neutral fact-finder legally could not, and did not directly verify the information provided by the respondents.

Process for the Calculation of Market Values

In 1998 and 1999, approximately 30 to 40 contract summaries were utilized by the neutral fact-finder in the calculation of market values. However, since certain retail customers were given a choice of electric suppliers commencing in October 1999, a significant increase in the number of contract summaries to be submitted to the neutral fact-finder was anticipated for the year 2000 neutral fact-finder process. Further, the year 2000 neutral fact-finder process is the first neutral fact-finder process subsequent to the implementation of delivery service tariffs by Illinois electric utilities pursuant to orders of the Commission.

The anticipated increase in the number of contract summaries to be submitted as well as issues related to the unbundling of bundled contracts utilizing Commission approved delivery service tariffs created the need to modify the contract summary forms and instructions that were utilized in the 1999 neutral fact-finder process. On January 4, 2000, the Illinois Commerce Commission ("Commission") entered an order initiating a proceeding to establish the requirements governing the form and content of the contract summary forms for the year 2000 neutral fact-finder process. This proceeding included workshops on January 27, 2000 and February 8, 2000 that were attended by the neutral fact-finder and/or his representatives, the Staff and other interested parties. The neutral fact-finder assisted the Staff in the development of proposed contract summary forms and instructions for the completion of the contract summary forms that were submitted to the Commission for its consideration.

On April 11 and 12, 2000, the neutral fact-finder and the Staff met with individual electric utilities and alternative retail electric suppliers that chose to participate in such meetings. The purpose of the meetings was to obtain additional information concerning the types and number of contracts for which summaries were to be submitted as well as marketing and pricing strategies utilized by suppliers that may impact whether contract prices are reflective of market prices. By Order dated April 18, 2000, the Commission adopted general instructions and contract summary forms to be used in the 2000 neutral fact-finder process.

Summary of Information Submitted to the Neutral Fact-Finder

The neutral fact-finder received a total of 1,043 contract summaries from 12 entities. The 1,043 contract summaries summarized a total of 5,953 contracts. In addition, contract summaries were submitted for 220 contracts that were deemed by the neutral fact-finder to be not reportable pursuant to the Act and therefore were not considered.

The number of contracts exceeded the number of contract summaries since respondents were permitted to aggregate contracts with identical terms and conditions. Also, in some instances, a single contract summary was submitted for a group of contracts with nearly identical terms with separate hourly price and quantity spreadsheets submitted for each contract.

The neutral fact-finder accorded no weight to 3,109 of the 5,953 contracts in the calculation of market values. Contracts were excluded for one or more of the following reasons:

- The contract terminated in 2000, with an option to renew, but the option to renew had not been exercised.
- The price in the contract is to be adjusted on January 1, 2001, to reflect the new transition charges to be determined by the Commission. These contracts were not included since prices for 2001 are not known at this time and the customer has an option to terminate the contract once the price is known.
- The contract was for standby or backup power for self-generators or cogenerators. These contracts were excluded because they were deemed by the neutral fact-finder to be for a separate product more like an ancillary service or an insurance policy.
- No explicit energy prices were stated in the contract and no historic cost information exists since the seller did not purchase or generate energy in the previous year.
- The contract was entered into prior to a retail purchaser having the option to choose a supplier (except for cogeneration deferral contracts or relocation deferral contracts, which were included in the calculation of market values). These contracts were accorded no weight in the calculation of market values based on the neutral fact-finders determination that they were not reflective of market prices because the markets had not yet been opened to competition.
- Respondents provided insufficient or unreliable data.
- The contract was for the buyback of power from divested power plants. These contracts were accorded no weight in the calculation of market values given the neutral fact-finder's concern regarding the possible relationship between the price for the sale of the power plants and the price for the purchase of power from those plants and the difficulty of assessing the possible influence of the terms and conditions of related plant ownership transfers upon power buyback prices.

The remaining 2,624 contracts were utilized by the neutral fact-finder in the determination of market values. Some of the contracts had multiple tiers with different characteristics. Each of the tiers was treated as a separate contract. These data summaries had the following attributes:

- Reliability
  - 2,616 - Firm or Native Load Firm
  - 1 - Marketer Firm
  - 3 - Generator/Unit Contingent Firm
  - 3 –System Firm
  - 1 - Non-Firm
- Term
  - 334 - Less than one year
  - 1,771 – Between one and three years
  - 463 – Between three and five years
  - 56 – Greater than five years
- Size
  - Contracts ranged from 0.015 MWH to 1,850,537 MWH
- Pricing characteristics
  - 580 – Flat year round prices (2,367,987 MWH)
  - 2,044 – Time or seasonally differentiated prices (11,185,601 MWH)

- Contract Vintage
  - 51 contracts were entered into on June 30, 1999, or earlier
  - 2,573 contracts were entered into on or subsequent to July 1, 1999
- Power Purchase Options (PPO) Assignments
  - 110 PPO Assignments
  - 335 Unexercised PPO Assignments

Process for the Determination of Market Values

In the determination of market values, Section 16-112(c) of the Act requires the neutral fact-finder to take into account the defining characteristics such as: the nature of the power transaction such as firm or non-firm; the length of the contract; and temporal differences such as seasonal, peak or off-peak pricing.

The Act requires that market values must be based exclusively on the information included in the contract summary forms received by the neutral fact-finder. The neutral fact-finder has not performed any price forecasting or forecasted any price indices to determine future market values.

The neutral fact-finder reviewed the contract summaries for responsiveness to the Commission's Order and the Act. Contract summaries were analyzed to determine trends among contract summaries to assist in the organization of the information.

The neutral fact-finder requested additional information from respondents where contract summaries did not include all of the required information, included incorrect information or where clarification of information was deemed necessary. The neutral fact-finder solicited explanations of the information to ensure the neutral fact-finder understood the information and its implications on the determination of market values. Several teleconferences were conducted among the persons responsible for completing the contract summaries, the neutral fact-finder and the Commission Staff.

This process of obtaining complete and correct information started in mid June and continued throughout July. Some of the information utilized to calculate market values was received as late as August 7, 2000. Some of the contracts were not utilized because the neutral fact-finder had not received complete and/or correct information as of August 7, 2000. In late July, the neutral fact-finder anticipated the receipt of additional and corrected information for several hundred additional contracts that would allow the inclusion of these contracts in the calculation of market values. On that basis, he determined to delay the release of the report by approximately 10 days to allow for the receipt of the additional information and the inclusion of several hundred additional contracts in the calculation of market values.

The neutral fact-finder constructed an electronic spreadsheet to analyze the data. The spreadsheet was updated and modified as responses to the neutral fact-finder's questions were received.

The next step involved determining the different categories of energy and power for which market values were to be calculated. This included an analysis of the extent to which the contract summary information allowed for the categories determined by the neutral fact-

finder to be consistent with those required by the Act. This required an analysis of the many variables included in the contract summaries, including:

- Fixed and variable price contracts.
- Different levels of reliability.
- Contracts with separately stated energy and capacity prices, and contracts with prices stated on a per MWH basis only.
- Varying terms.
- Varying quantities.
- Varying points of delivery.

The neutral fact-finder analyzed the following six characteristics of the contracts, which eventually determined the categories for which market values, were calculated:

1. Level of Reliability

The Commission's General Instructions to the contract summaries directed respondents to determine and define each level or category of reliability such as native load firm, marketer firm, non-firm or other type of firm for each pricing period. The contract summaries received from the respondents included five levels of firmness generally defined as follows:

- Native Load Firm: This is the same degree of firmness as the utility's native load, full requirement customers receive. Customers receiving power on a native load basis will not be curtailed unless native load is curtailed, and then only in direct proportion to the curtailment of native load. All of the non-interruptible retail contracts were considered to be native load firm.
- Marketer Firm: This degree of firmness is very high and is virtually indistinguishable from native load firm. A customer receiving marketer firm power can be curtailed for economic reasons, subject to provisions for liquidated damages.
- Non-firm: These customers can be curtailed both to meet system capacity needs or for economic reasons.
- Generator/Unit Contingent Firm: Exposure to curtailment is essentially limited to the generating unit's availability or to circumstances beyond the control of the seller.
- System Firm: Exposure to curtailment is limited to the utility's capacity needs to serve its native load

As stated above, contract summaries were submitted for one marketer firm, three generator/unit contingent firm and three system firm contracts. Given the limited number of contracts for each of these definitions of reliability and that the products were similar in nature, the neutral fact-finder determined that the marketer firm contract, generator/unit contingent firm, and system firm contracts were similar in nature to the native load firm contracts. Therefore, marketer firm, generator/unit contingent firm and system firm contracts were combined with the native load firm contracts to create one "firm" category. Insufficient information was submitted to calculate market values for a non-firm category since only one non-firm contract was reported.

2. Capacity Charges

The contract summaries included some contracts with an explicit and separate charge for capacity stated on a $/MW basis and some contracts where the charges for capacity were not explicit and the charges included only an energy charge stated on a $/MWH basis.

The 1999 neutral fact-finder report included market values both with separately stated capacity and energy values and with the capacity values combined with the energy values. However, the ICC utilized only the market values that combined the energy and capacity values. Consistent with the ICC's application of the market values in 1999, market values were not calculated with separately stated capacity charges in the 2000 neutral fact-finder report.

For contracts with separately stated capacity charges, the neutral fact-finder (or the respondent) calculated demand revenues by multiplying demand charges by demand quantities. Demand revenues were then divided by the energy usage applicable to the period producing a $/MWH value which was added to the energy prices.

3. Time Sensitivity of Rates

The contract summaries included contracts with flat, year-round prices and contracts with time or seasonally differentiated rates. The summer period in some of the contracts was defined as June 1 through September 30. Many of the retail contracts defined the summer period as commencing with the first meter reading subsequent to June 1 or June 15 plus the following three months. The definition of the summer period provided on the contract summary for these contracts was the same as the definition of the summer period in the tariff under which the customer would have been served by the utility.

The neutral fact-finder reviewed the varying definitions of summer and non-summer periods and collapsed such differing periods based on the definitions specified in the majority of the contracts. The result is a Summer period defined as June 1 through September 30.

The contract summaries also included prices that varied by the time of day. Contract summaries varied somewhat in defining the peak and off-peak hours, with the peak period commencing at times ranging from 6:00 AM to 9:00 AM, and ending at times ranging from 6:00 PM to 10:00 PM. Contract summaries generally defined the peak period as Monday through Friday, exclusive of the following National Electric Reliability Council holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. Certain contract summaries included Saturday in the peak period.

The neutral fact-finder reviewed the varying definitions of peak and off-peak hours and collapsed such differing time periods based on the hours specified in the majority of contracts. The result is a peak period from 9:00 AM to 10:00 PM, prevailing Central Time, Monday through Friday, exclusive of the holidays listed above.

4. Contract Size and Duration

The neutral fact-finder did not observe sufficient price differentials or pricing patterns to allow for a quantification of a relationship between contract duration or contract size and market value or to segregate contracts based on these factors.

5. Geographic Location

The neutral fact-finder noted the power delivery points for wholesale and retail transactions. The contract summaries show no systematic tendency to vary with the location of the delivery points specified, or among service territories. Therefore, the neutral fact-finder developed single, statewide price averages.

6. Indexed Prices

Some contract summaries utilized by the neutral fact-finder included an annual adjustment factor based on certain actual costs related to producing energy. These contract adjustment clauses were thus cost based and as such were treated in a manner consistent with cost based contracts. That is, the annual adjustment for the contract energy prices was based on the most recent annual cost information available. Accordingly, no adjustment was assumed for the year 2001 prices over the year 2000 prices currently in effect.

Years Beyond 2001

The Act requires the neutral fact-finder to calculate market values for the year 2001 and to the extent the contract summaries include a sufficient number of actual contracts to represent a viable market for the sale and delivery of electric power and energy in subsequent years, for each of the succeeding four years. A large majority of the contracts utilized to calculate market values for the year 2001 are retail contracts that terminate by the end of the year 2001. Less than 8% of the contact summaries submitted were for contracts that extended through the end of 2002. Some of these contract summaries include proxy prices based on actual costs from the preceding year as required by the Act. The Act does not require and it would be inappropriate to utilize actual costs from the preceding year for the years beyond 2001.

Once the cost based and the terminated contracts were removed from the population, the neutral fact-finder concluded that there were not sufficient contracts to represent a viable market in the years beyond 2001. Therefore, market values were not included in this report for years beyond 2001.

Final Market Value Categories

Based upon a review of the contract summaries submitted, the neutral fact finder determined market values for the summer and non-summer periods and for the peak and off-peak periods. All market values were expressed on a dollar per megawatthour ($/MWH) basis with no separately stated capacity values. The capacity charges were expressed as energy charges pursuant to the methodology spelled out in the above capacity charge section of this report. Combining contracts with flat year round prices and those with seasonal or time of day prices had a negligible impact on the spread between the on and off-peak market values. Therefore, the neutral fact-finder combined contracts with flat year round prices with those with time or seasonally differentiated rates. Due to the minimal number of contract summaries for non-firm power and energy, market values were calculated for firm power and energy only. The market values are statewide values with no geographic differentiation. Market values were calculated for 2001 only.

Table 1

2000 ICC Neutral Fact Finder Results
Firm Power and Energy

Weighted Average Prices for 2001 ($/MWH)

Summer		Non-Summer	
Off-Peak	Peak	Off-Peak	Peak
$29.82	$43.22	$25.97	$34.88

Quantities (MWH)

Summer		Non-Summer	
Off-Peak	Peak	Off-Peak	Peak
2,871,537	1,491,350	6,012,865	3,177,836

Peak = 9:00 a.m. – 10:00 p.m. Monday – Friday, except NERC holidays
Summer = June 1st – September 30th