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**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Petition of Duquesne Light Company :
for Approval of Default Service Plan : Docket No. P-00072247
for the Period January 1, 2008 :
through December 31, 2010 :

SURREBUTTAL TESTIMONY

OF

GUY SHARFMAN

On Behalf of

Direct Energy Services, LLC

and

the Retail Energy Supply Association

RECEIVED
MAY - 3 2007
PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

April 20, 2007

1 A. I received a B.A. degree in economics from the University of Illinois at
2 Urbana/Champaign in 1994, and an M.A. in economics from DePaul University at
3 Chicago in 1998. From 1998 to 2000, I was employed as a Consultant for
4 Analytical Support Network, Inc. ("ASNI"), a firm specializing in regulatory and
5 economic consulting in the electricity industry. During my time at ASNI I
6 became involved in electric deregulation, providing support for various cases
7 before state commissions, assisting energy retailers with product structuring and
8 pricing related issues, and working with consumer groups looking to participate in
9 deregulation. In 2000, I became Manager of Electric Services for Nicor Energy
10 Services, L.L.C. in Lisle, Illinois. In that position, I managed the power-pricing
11 desk, negotiated power supply agreements with wholesalers, developed electric
12 retail service capabilities for the company in various Illinois, Michigan, and Ohio
13 utility service territories, and structured mass market and individualized retail
14 power products. In 2001, I took a position with Enron Energy Services where I
15 managed Enron's retail commodity position in the Midwest region. My
16 responsibilities at Enron included buying and selling power, creating and
17 maintaining retail power forward curves for various utility service territories,
18 developing Enron's capability to serve retail load in new markets, as well as
19 assisting regulatory affairs in various matters. In 2002, I took a position with
20 Econ One Research, Inc, a company specializing in energy economics. My duties
21 at Econ One included consulting on electric wholesale, retail, and regulatory
22 matters to energy companies, governmental bodies, as well as end users. I joined

1 Intelometry in 2004. My Curriculum Vitae is attached as Direct/RESA Exhibit
2 GS-1.

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

4 A. I have been asked to respond to the comments made in the rebuttal testimony of
5 certain witnesses in regards to the Intelometry Study (“Study”) presented in Frank
6 Lacey’s testimony as Direct/RESA Exh. FPL-3. These witnesses have
7 misunderstood and misinterpreted key aspects of the Study. I also recalculated
8 and modified certain portions of the analysis to incorporate figures presented by
9 Duquesne witness William V. Pfrommer to demonstrate that incorporating these
10 figures has no impact on the validity of the study or the Study’s key conclusions.

11 **Q. HOW IS YOUR TESTIMONY STRUCTURED?**

12 A. The remainder of the testimony is comprised of the following sections:

- 13 • Section II reviews the purpose and conclusions of the Study.
- 14 • Section III addresses the comments made in regards to the Study in the
15 rebuttal testimony of Duquesne witnesses William V. Pfrommer and Neil
16 S. Fisher.
- 17 • Section IV addresses the comments made in regards to the Study in the
18 rebuttal testimony of Office of Small Business Advocate (“OSBA”)
19 witness Brian Kalcic and Office of Consumer Advocate (“OCA”) witness
20 Matthew I. Kahal.
21

22
23 **SECTION II**

24 **OVERVIEW OF THE INTELOMETRY STUDY**

25 **Q. PLEASE PROVIDE AN OVERVIEW OF THE INTELOMETRY STUDY**
26 **PRESENTED AS DIRECT/RESA EXH. FPL-3.**

27 A. The Study was prepared by Intelometry at the request of Direct Energy prior to
28 my involvement in this docket. The Study’s intent was to compare Duquesne’s
29 tariff based generation service prices for typical residential and small commercial

1 customers to prices for these same customers had their generation service
2 requirements been procured directly from the wholesale spot market for the
3 period of January 1, 2005 through November 30, 2006, ("analysis period"). Spot
4 market in this context means the price paid if the requirements are procured in the
5 PJM sanctioned hourly energy market (day-ahead and real-time), the PJM
6 sanctioned daily capacity market, and the PJM sanctioned ancillary service
7 markets. The Study was part of a series of studies conducted across a number of
8 utilities in different markets.

9 Rate RS was chosen for the Duquesne residential customer analysis and rate
10 GS/GM was chosen for the small commercial customer analysis. Historical
11 energy and capacity prices, ancillary service prices, and administrative fees
12 ("surcharges") utilized in the wholesale market analysis were compiled from
13 publicly available data on the PJM website.

14 **Q. PLEASE SUMMARIZE THE RESULTS AND CONCLUSIONS REACHED**
15 **BY THE STUDY.**

16 A. The Study presented results on two levels. First, the Study looked at the average
17 prices (\$/MWh) for a single typical residential or small commercial customer.

18 The results were shown on average for each of the 23 months of the Study and on
19 average for the entire period. This portion of the Study showed that wholesale
20 spot market prices were less than the Duquesne tariff price in all but 5 of the 23
21 months. In addition, the Study showed that wholesale spot market prices were
22 also less on average across the entire period.

23 Second, the Study multiplied the total cost across the entire period for a single
24 typical residential or small commercial customer by the number of customers in

1 the RS and GS/GM rate class. This result showed the overall magnitude of the
2 difference in the costs between Duquesne's tariff price and the wholesale spot
3 market price.

4 SECTION III

5 RESPONSE TO DUQUENSE WITNESSES PFROMMER AND FISHER

6 Response to the Rebuttal Testimony of William V. Pfrommer:

7 Q. PLEASE SUMMARIZE MR. PFROMMER'S CRITICISMS OF THE
8 STUDY MADE ON PAGES 11 AND 12 OF HIS REBUTTAL TESTIMONY.

9 A. Mr. Pfrommer criticizes the Study in the following areas:

- 10 1) The level of RS and GS/GM shopping was not taken into account.
- 11 2) If the study was to incorporate Duquesne default service billed POLR sales for
12 rate class RS, the total tariff cost for the RS class would have been
13 \$341,739,500 during the analysis period instead of the \$653,979,066
14 presented in the Study.
- 15 3) The Study should have used either average residential consumption figures
16 provided in response to OCA-I-18, or the average annual RS and GS/GM
17 consumption figures provided in Duquesne's 2005 FERC Form 1, instead of
18 the typical residential and small commercial consumption utilized.¹
- 19 4) The Study did not focus solely on the aspects of Duquesne regulated tariff
20 rate.
- 21 5) The Study misapplies the Duquesne tariff because applying rate GS/GM to a
22 single profile does not take into account the size and diversity of the
23 customers in the GS/GM rate class.

¹ Rebuttal Testimony of William V. Pfrommer, p. 12.

1 Q. **WHY DIDN'T THE STUDY TAKE INTO ACCOUNT THE SHOPPING**
2 **LEVELS FOR RS AND GS/GM CUSTOMERS DURING THE ANALYSIS**
3 **PERIOD?**

4 A. As I discussed earlier, the intent of the estimated class generation service cost
5 tables² referred to by Mr. Pfrommer was to calculate the magnitude of the
6 difference in costs between Duquesne's tariff price and the wholesale spot market
7 price. The intent was not to comment on the level of shopping that occurred
8 during the analysis period, or to assess shopping levels that might have occurred
9 under a different construct.

10 Q. **MR. PFROMMER CLAIMS THAT INCORPORATING DUQUESNE**
11 **DEFAULT SERVICE BILLED POLR SALES FOR RATE CLASS RS**
12 **INTO THE STUDY RESULTS IN A DROP OF TOTAL TARIFF COST**
13 **FOR THE RS CLASS. DOES HIS CLAIM IMPACT ON THE STUDY'S**
14 **VALIDITY?**

15 A. No. Again, the intent of the Study was to demonstrate the magnitude of the
16 difference in costs between Duquesne's tariff price and the wholesale spot market
17 price. While Mr. Pfrommer's points out that incorporating Duquesne's billed
18 POLR kWh sales into the analysis creates a drop in total tariff cost for the RS
19 class, he fails to mention that a similar drop in the total spot market cost for the
20 RS class would also occur. In fact, changing the total RS class kWh figure has
21 absolutely no bearing on the average tariff or spot market prices (\$/MWh)
22 calculated in the Study for RS customers. The historical spot price remains
23 significantly lower than the historic Duquesne tariff price for the RS class
24 regardless of which total class kWh figure is used.

25 Q. **WHY DIDN'T THE STUDY USE RS AND GS/GM CLASS AVERAGE**
26 **ANNUAL USAGE IN THE ANALYSIS AS PROVIDED IN RESPONSE TO**
27 **OCA-I-18, OR THE AVERAGE ANNUAL RS AND GS/GM**

² Direct/RESA Exh. FPL-3, p. 10.

1 **CONSUMPTION FIGURES PROVIDED IN DUQUESNE'S 2005 FERC**
2 **FORM 1?**

3 A. As I discussed earlier, the Study was part of a series of studies conducted across a
4 number of utilities in different markets. The annual consumption levels of 11,000
5 kWh for residential and 45,000 kWh for small commercial were developed to
6 define typical customers to be held constant across a number of markets
7 (including Duquesne). In addition, since this Study was produced prior to my
8 involvement in this docket, it would have been impossible to use figures provided
9 in response to a data request during this proceeding.

10 **Q. DID YOU RECALCULATE THE TOTAL COSTS ASSOCIATED WITH**
11 **DUQUESNE'S TARIFF PRICE AND THE WHOLESALE SPOT MARKET**
12 **PRICE USING THE AVERAGE ANNUAL RS AND GS/GM FIGURES**
13 **PROVIDED BY MR. PFROMMER?**

14 A. Yes.

15 **Q. DID USING MR. PFROMMER'S FIGURES CHANGE THE STUDY'S**
16 **CONCLUSIONS?**

17 A. No. Using Mr. Pfrommer's figures changes only the magnitude of the results and
18 conclusions, but not the fact that short-term market prices are historically less
19 expensive, over time, than long-term tariff prices. Wholesale spot market prices
20 were less than the Duquesne tariff price during the analysis period, and thus
21 customers would have saved a substantial amount of money if they had been
22 priced off of the spot market.

23 **Q. DO YOU PRESENT THE DETAILS OF THIS ANALYSIS IN YOUR**
24 **TESTIMONY?**

25 A. Yes. I recalculated both the average price (\$/MWh) for each class and the total
26 cost across the analysis period for each class using the average annual RS and
27 GS/GM consumption levels provided in Duquesne 2005 FERC Form 1. The

1 results are attached to this testimony as Direct/RESA Exh. GS-2. As the exhibit
2 illustrates, the average tariff price (\$/MWh) for small commercial customers
3 barely changes and the total class tariff and spot market cost differential across
4 the analysis period continues to remain substantial at \$53 million for the RS class
5 and \$31 million for the GS/GM class.³

6 **Q. MR. PFROMMER CLAIMS THAT THAT STUDY DOES NOT SOLELY**
7 **FOCUS ON ASPECTS OF DUQUESNE REGULATED TARIFFS. DO**
8 **YOU AGREE?**

9 A. The study focuses on spot market prices as well as tariff prices. However, Mr.
10 Pfrommer implies that additional tariffs, other than Duquesne rate RS and rate
11 GS/GM, were used to construct the analysis, and this implication is baseless.⁴
12 While Intelometry has conducted similar studies for other markets, only the
13 Duquesne tariffs RS and GS/GM were used in this Study.⁵

14 **Q. MR. PFROMMER ALLEGES THAT THE STUDY MISAPPLIES TARIFF**
15 **RATES BECAUSE APPLYING RATE GS/GM TO A SINGLE PROFILE**
16 **DOES NOT TAKE INTO ACCOUNT THE SIZE AND DIVERSITY OF**
17 **THE CUSTOMERS IN THE GS/GM RATE CLASS. DO YOU AGREE?**

18 A. No. The application of the GS/GM tariff and the size and diversity of the GS/GM
19 customers are two different issues that are mutually exclusive. The application of
20 rate GS/GM tariff prices and price structure to the sample GS/GM customer
21 utilized in the Study was done in accordance with Duquesne's own published
22 tariff, and Mr. Pfrommer has made no assertion that this rate was improperly
23 applied.

³ Direct/RESA Exh. GS-2.

⁴ Rebuttal Testimony of William V. Pfrommer, p. 12.

⁵ Direct/RESA Exh. FPL-3, pp. 7-8.

1 In regards to Mr. Pfrommer's assertion that the Study should take into account the
2 size and diversity of customers residing in the GS/GM class, I note the following:

3 a) As stated in the Study,⁶ Duquesne does not make its GS/GM customer
4 class profiles publicly available, and therefore any load shape diversity
5 within the GS/GM class could not be assessed.

6 b) As Direct/RESA Exh. GS-2 illustrates, when – at Mr. Pfrommer's own
7 insistence– average GS/GM consumption levels are incorporated into the
8 Study, total market savings for the GS/GM class actually increase from
9 \$28 million, as calculated in the original Study, to over \$31 million.

10 **Response to the Rebuttal Testimony of Neil S. Fisher:**

11 **Q. PLEASE SUMMARIZE THE CLAIMS THAT DUQUESNE WITNESS**
12 **FISHER MAKES IN REGARDS TO THE STUDY.**

13 **A. Mr. Fisher claims the Study is flawed for the following reasons:**

14 1) The wholesale spot market price calculation does not account for costs and
15 risks associated with the obligation to provide load following services.

16 2) The wholesale spot market price calculation does not account for the customer
17 migration risk assumed by default service suppliers under fixed-price
18 contracts.

19 3) The wholesale spot market price calculation excludes the costs of designing
20 and implementing a competitive solicitation every quarter or month.

21 4) Similar to Mr. Pfrommer, Mr. Fisher discusses the fact that the Study does not
22 account for customer shopping during the analysis period.

⁶ Direct/RESA Exh. FPL-3, p. 12.

1 5) Similar to Mr. Pfrommer, Mr. Fisher criticizes the Study for not incorporating
2 the average annual RS and GS/GM consumption figures provided in
3 Duquesne 2005 FERC Form 1.

4 **Q. IN LIGHT OF MR. FISHER'S COMMENTS REGARDING THE STUDY,**
5 **WHAT DO YOU CONCLUDE IN REGARDS TO HIS ASSESSMENT?**

6 A. It appears that Mr. Fisher fundamentally misunderstands the premise and the
7 methodologies employed in the Study.

8 **Q. PLEASE DISCUSS MR. FISHER'S CLAIM THAT THE WHOLESALE**
9 **SPOT MARKET PRICE CALCULATION SHOULD ACCOUNT FOR THE**
10 **COST AND RISKS ASSOCIATED WITH THE OBLIGATION TO**
11 **PROVIDE LOAD FOLLOWING SERVICES.**

12 A. It is not clear if Mr. Fisher is referring to the physical costs associated with
13 generation following load, or the financial risk of procuring forward power but
14 then serving fluctuating hourly load. In either case, his concern is unfounded.
15 The physical costs associated with generation following load are incorporated into
16 the PJM ancillary service costs included in the Study. From a financial
17 perspective, this risk is non-existent. The Study assumes that, during the analysis
18 period, all customer load is purchased on the spot market. This means the actual
19 hourly load is priced against the actual hourly day ahead or real time price. There
20 is no residual risk to account for.

21 **Q. WHY DIDN'T THE STUDY ACCOUNT FOR CUSTOMER MIGRATION**
22 **RISK WHEN CALCULATING THE WHOLESALE SPOT MARKET**
23 **PRICE?**

24 A. Again, the Study assumes that all customer load is purchased on the spot market.
25 Migration risk is only relevant when the supplier of generation services is pricing
26 long-term fixed-price contracts and therefore may have more or less power

1 procured than necessary if customers switch to alternative suppliers. Since the
2 Study does not include a forward market analysis, this risk is not relevant.

3 **Q. WHY DIDN'T THE STUDY ACCOUNT FOR THE COSTS OF**
4 **DESIGNING AND IMPLEMENTING A COMPETITIVE SOLICITATION**
5 **EVERY QUARTER OR MONTH WHEN CALCULATING THE**
6 **WHOLESALE SPOT MARKET PRICE?**

7 **A.** For the same reasons I discussed in the answer to the previous question. The
8 Study was not a forward looking analysis.

9 **Q. DO YOU HAVE ANY OTHER COMMENTS REGARDING MR.**
10 **FISHER'S CRITICISMS?**

11 **A.** No. Mr. Fisher's remaining criticisms are substantially the same as Mr.
12 Pfrommer's.

13 SECTION IV

14 RESPONSE TO OSBA WITNESS KALCIC AND OCA WITNESS KAHAL

15 **Q. ARE THERE ANY OTHER WITNESSES WHO HAVE MADE**
16 **INCORRECT ASSERTIONS REGARDING THE STUDY IN THEIR**
17 **TESTIMONIES?**

18 **A.** Yes. OSBA witness Kalcic and OCA witness Kahal have both provided
19 unfounded criticisms of the Study in their rebuttal testimony.

20 **Unfounded Criticisms of the OSBA**

21 **Q. CAN YOU PLEASE EXPLAIN THE ASSERTIONS THAT MR. KALCIC**
22 **MAKES CONCERNING THE STUDY HIS REBUTTAL TESTIMONY?**

23 **A.** Mr. Kalcic makes several factually incorrect assertions about the Study.

- 24 1) First, Mr. Kalcic concludes that the Study did not include transaction costs
25 associated with purchasing energy in the PJM day-ahead or real-time
26 markets.

1 2) Mr. Kalcic also incorrectly concludes that “the study does not appear to
2 include any allowance for differences in actual versus expected customer
3 usage”.⁷

4 **Q. DO YOU AGREE WITH MR. KALCIC CLAIM THAT THE STUDY DID**
5 **NOT INCLUDE TRANSACTION COSTS ASSOCIATED WITH**
6 **PURCHASING ENERGY IN THE PJM DAY-AHEAD OR REAL-TIME**
7 **MARKETS?**

8 **A. No. The Study takes into account all the costs charged by PJM for transacting in**
9 **the market. This is clearly shown in the Study, which contains a section on this**
10 **topic entitled “PJM Surcharges”.⁸**

11 **Q. DO YOU AGREE WITH MR. KALCIC’S CLAIM THAT THE STUDY**
12 **DOES NOT INCLUDE ANY ALLOWANCE FOR DIFFERENCES IN**
13 **ACTUAL VERSUS EXPECTED CUSTOMER USAGE**

14 **A. No. Mr. Kalcic misunderstands the premise of the Study. The Study calculates**
15 **the cost associated with serving a typical residential or commercial customer**
16 **assuming all of their actual requirements are purchased on the spot market.**

17 **Unfounded Criticisms of the OCA**

18 **Q. MR. KAHAL STATES THAT THE TOTAL DOLLAR SAVINGS**
19 **ESTIMATE IN THE STUDY “SHOULD NOT BE TAKEN SERIOUSLY”.⁹**
20 **DO YOU AGREE WITH HIS ASSERTION?**

21 **A. No. Mr. Kahal acknowledges on the same page of his rebuttal testimony that “it**
22 **is entirely plausible that spot prices may be available at a discount to multi-year**
23 **fixed price for full requirements generation service”.¹⁰ As such, it is certainly**
24 **valid to estimate the total differential between the Duquesne tariff and the market**
25 **price on a class basis.**

⁷ Rebuttal Testimony of Brian Kalcic, p. 3.

⁸ Direct/RESA Exh. FPL-3, p.17.

⁹ Rebuttal Testimony of Matthew I. Kahal, p. 3.

¹⁰ Rebuttal Testimony of Matthew I. Kahal, pp. 3 - 4.

1 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

2 A. Yes.

Direct/RESA Exh. GS-1

Guy Sharfman
Managing Director, Consulting Services

KEY QUALIFICATIONS

Guy Sharfman has a broad range of operational and consulting experience in the energy industry, and is a recognized industry expert in the retail and wholesale electricity arenas. Guy has held key leadership roles in risk management, structuring and pricing, hedging and position management, and wholesale and retail market development and expansion. In his present position he leads the retail energy consulting practice of Intelometry, Inc. Guy holds an M.A. in economics from DePaul University in Chicago, and a B.A. in economics from the University of Illinois in Champaign/Urbana.

Guy has testified and provided litigation support in cases before a number of state utility commissions. Guy also directs the construction and publication of Intelometry's Retail Power Index ("RPI"), which is published monthly in Platt's Megawatt Daily and Power Markets Week. The RPI provides an independent snapshot of how electric retail competitive markets are performing by comparing wholesale and retail market prices across U.S. regions. Guy's industry experience includes buying and selling power, creating hedging strategies to manage risks associated with term supply, developing physical delivery capabilities for companies to serve new markets, electricity product structuring and pricing, wholesale and retail contract negotiation, stranded cost analyses, tariff development and assessment, power plant value assessment, supply and demand forecasting, benchmarking analyses, and electric procurement analysis.

EDUCATION

- MA Economics, DePaul University at Chicago, IL, 1998
BA Economics, University of Illinois at Champaign/Urbana, IL, 1994

INDUSTRY EXPERIENCE

Econ One Research, Inc. (2001 - 2004)

Director of Energy Strategy responsible for established a new **business consulting practice centering on the power and natural gas industries in North America. Acquired and managed consulting projects for major energy companies, law firms and energy publications. Conducted studies and gave presentations on the future of energy markets to clients and associations.**

Enron Wholesale Services (2001)

Managed Enron's retail power positions and developed new markets in the Central region. Created and managed retail power forward curves into all major control areas in the ECAR, MAIN and MAPP regions. Structured financial and physical products for retail power customers in Illinois, Michigan, Ohio and Virginia. Assisted Enron regulatory affairs group in various energy proceedings in front of FERC and State Commissions in Illinois, Ohio and Michigan.

Nicor Energy, L.L.C. (2000-2001)

Manager of Electric Services responsible for structuring and pricing retail electricity in Illinois control areas. Trained and supervised Nicor Energy's power pricing desk. Negotiated electric supply agreements with wholesale companies to supply portions of Nicor Energy's retail load obligations. Developed retail electric service capabilities for Nicor Energy in Michigan and Ohio control areas. Developed a Green Power supply option for Nicor Energy in Illinois.

Analytical Support Network, Inc. (1998-2000)

Performed open access pricing for an alternative retail electric supplier. Constructed retail power pricing models for the Commonwealth Edison control area. Created indices that predicted a company's open access savings potential based on variables such as SIC codes in order to develop a target market. Conducted open access option assessment for various electric consumers. Performed all types of economic cost and efficiency analyses including contract assessment, price and demand forecasting, future revenue expectations and efficiency of operations assessments. Assessed expert testimony and prepared cross-examination questions for legal staff. Assisted in the testimony strategy of expert witnesses testifying in various electric deregulation proceedings before the Illinois Commerce Commission and the Public Utility Commission of Wisconsin.

CONSULTING EXPERIENCE

National Energy Marketer inRetail Implementation

Project Manager for the implementation of Intelometry's inRetail product suite for a national energy marketer. The product suite installation is focused on processing and profiling historic customer load data, managing forward curve and market spot price data, pricing and structuring retail power deals for large and small consumers, and integrating to settlement and position management systems.

Structured Supply Assessment

Managed team to assist client in finding Midwest counterparties for wholesale supply to back their retail load obligations, develop portfolio management strategies, and determine alternate methods of procurement.

Market Segmentation

Researched and developed an individual market profile for each of nineteen utilities across five states for the one to fifteen megawatt customer segment. Constructed tables for each utility depicting the number of

existing commercial and industrial customers falling in each of seven demand class categories contained within the one to fifteen megawatt segment. Developed an expected annual kWh consumption range by utility for each demand class category for both commercial as well as industrial customer groups.

Michigan Market Entry and Operations Strategy

Managed team to perform a comprehensive market assessment to advise client of entry strategy into the Michigan retail natural gas and power market. Assessment included a full review of wholesale supply options, regulatory issues, transactional issues, value proposition assessment, and recommendations on product structures and risks.

Transition Charge Forecast

Conducted a forecast of Illinois transition charges for the ComEd control area for the entire transition (the end of the Illinois retail electricity deregulation transition period). Assessed how changes in the current forward market and proposed changes in ComEd distribution rates would affect transition charges over time. Analyzed how changes in transition charges would affect the viability of the retail electric market in Illinois.

Electricity Rate Analysis

Conducted rate audits and analysis for CBS facilities in New York City in order to determine if CBS was overcharged for electric service. Facilitated negotiations between CBS and opposing parties to settle outstanding disputes over energy bills. Assessed whether previous charges allowed under current lease agreements.

Market Value Calculation Audit

Conducted an audit of market setting "Market Value Energy" numbers put forth by Commonwealth Edison Company ("ComEd") on an annualized basis. Used snapshots of the into Cinergy peak forward market, historical PJM hourly price shapes and into ComEd historical off peak prices to recreate ComEd's output and assess how changes in the wholesale market have

affected the viability of the Illinois retail market since the numbers have been put forth.

TESTIFYING EXPERIENCE

First Energy Corporation

Testified on behalf of a coalition of energy companies and a manufacturer's association in a case before the Public Utilities Commission of Ohio (PUCO) on the market impacts of a rate stabilization plan proposed by First Energy Corporation. Testimony analyzed the impacts that the proposed plan would exert on regional energy markets, and provided the PUCO with alternative options to the plan including a wholesale Provider of Last Resort (POLR) auction.

Commonwealth Edison Company, Illinois Power Company, and AMERN Corporation

Testified in a hearing before the Illinois Commerce Commission to determine how energy values that set alternative electricity rates for all investor owned Illinois electric utilities should be calculated. Used the Retail Power Index ("RPI"), which I construct and publish Platts Megawatt Daily and Power Markets Week, in testimony to demonstrate the inadequacies of the current energy value calculation. Testified as to which remedies to the current calculation would improve market efficiency.

Commonwealth Edison Company

Testified in a proceeding before the Illinois Commerce Commission to set an electricity default rate for Commonwealth Edison Company ("ComEd"). In testimony, presented an alternative tariff design to the one proposed by ComEd that offered greater transparency and allowed for more adequate cost recovery. The final negotiated design incorporated many of the revisions that I proposed.

ADDITIONAL EXPERT ENGAGEMENTS

Honorarium to discuss agent-based modeling of electricity markets at Argon National Laboratory, Chicago, Illinois

Attended an honorarium for power marketers to assist Argon National Laboratory in building an electricity market modeling system that will allow regulators to anticipate market gaming behavior on the part of generators and power marketers in the event of market rule changes. Discussed the differences in market structures between current independent system operators and how energy companies use these different structures to create arbitrage opportunities. Offered insights into trading behavior in different NERC regions across the United States in real time, day ahead and term wholesale and retail markets.

Illinois Commerce Commission Electric Market Roundtable, Chicago, Illinois

Participated in the annual electric market roundtable discussions at the Illinois Commerce Commission. The Chairman of the Illinois Commerce Commission hosts the roundtable discussions. Participants include CEOs and CFOs of energy firms, leaders of commercial and industrial consumer groups as well as selected industry experts. The topics center around the development of competition in the electricity markets in Illinois both on a wholesale and retail level and what can be done to further foster competition's development.

Operational Task Force for the Midwest Independent System Operator, Indianapolis, Indiana

Attended an operational task force comprised of representatives from transmission owners and market participants to resolve operational issues for the Midwest Independent System Operator. Discussed issues involving methods of interaction and settlement between the transmission owners participating in the Midwest Independent System operator, independent marketers serving or planning to serve retail load, and municipalities.

PRESENTATIONS AND PUBLISHED WORKS

“What happened to Enron? (And other issues in the energy industry)”, presentation before the Rotary Club of Chicago Financial District.

“After Enron, Will Power Competition Survive?” Natural Gas - The Monthly Journal for Producers, Marketers, Pipelines, Distributors, and End-Users, Wiley Periodicals, Inc.

“The Impacts of The Enron Bankruptcy and the California Crisis on The Future of Wholesale and Retail Power Markets” Presentation to the International Association for Energy Economics.

The Retail Power Index (“RPI”) published monthly in Platts’ Megawatt Daily and Power Markets Week.

Direct/RESA Exh. GS-2

Q.

Q. RECALCULATION OF RESULTS USING MR. PFROMMER'S FIGURES

The typical kWh figures used in the Study, 11,000 kWh annually for residential and 45,000 kWh annually for small commercial customers were replaced with the following annual values:

	Residential	Small Commercial
Annual kWh Consumption	7,605	55,512

I.

II. RECALCULATED WEIGHTED AVERAGE PRICES

Historical Weighted Average Prices for Generation Service (\$ per MWh) DQE Tariff v PJM Market

Customer Type	Start Date	End Date	DQE Tariff	PJM Market	Delta	% Delta
Residential	1/1/2005	11/30/2006	\$83.03	\$55.62	\$27.42	12%
Small Commercial	1/1/2005	11/30/2006	\$61.91	\$56.53	\$5.38	9%

* Prices above include energy, capacity, ancillary services, line losses, surcharges, and GRT

Q. RECALCULATED GENERATION SERVICE COST TOTALS BY CLASS

Estimated Residential Class Generation Service Cost (Total \$) DQE Tariff v PJM Market

Price Period	Approximate Number of DQE Rate RS Customers	Estimated Generation Service Tariff Cost for Residential Class	Estimated Generation Service Market Cost for Residential Class	Delta
Jan-05	496,928	\$29,935,058	\$17,108,255	\$6,826,803
Feb-05	496,928	\$20,842,050	\$14,617,999	\$6,324,056
Mar-05	496,928	\$21,735,818	\$18,944,979	\$2,790,840
Apr-05	496,928	\$16,976,585	\$13,708,123	\$2,270,462
May-05	496,928	\$14,726,805	\$9,979,400	\$4,747,398
Jun-05	496,928	\$20,289,690	\$19,227,848	\$1,061,847
Jul-05	496,928	\$24,109,013	\$25,890,861	(\$1,561,848)
Aug-05	496,928	\$23,070,348	\$27,840,207	(\$4,769,859)
Sep-05	496,928	\$16,097,844	\$17,476,835	(\$1,438,991)
Oct-05	496,928	\$15,154,908	\$14,136,808	\$1,018,300
Nov-05	496,928	\$17,789,669	\$18,318,357	\$1,441,212
Dec-05	496,928	\$24,564,866	\$31,168,873	(\$6,605,217)
Jan-06	496,928	\$24,135,744	\$10,690,235	\$5,445,509
Feb-06	496,928	\$20,876,804	\$18,039,857	\$4,836,948
Mar-06	496,928	\$21,486,936	\$16,104,447	\$5,382,489
Apr-06	496,928	\$18,003,114	\$12,648,237	\$3,354,877
May-06	496,928	\$14,566,821	\$10,941,378	\$3,625,245
Jun-06	496,928	\$20,804,000	\$15,724,904	\$4,879,016
Jul-06	496,928	\$24,361,541	\$23,140,686	\$1,220,854
Aug-06	496,928	\$22,773,876	\$23,767,220	(\$993,344)
Sep-06	496,928	\$15,921,401	\$10,387,725	\$5,533,676
Oct-06	496,928	\$16,241,379	\$11,365,079	\$3,876,300
Nov-06	496,928	\$17,962,077	\$14,057,593	\$3,904,484
Total for Analysis Period		\$462,137,345	\$398,944,683	\$53,192,662

Estimated Small Commercial Class Generation Service Cost (Total \$) DQE Tariff v PJM Market

Price Period	Approximate Number of DQE Rate GS/GM Customers	Estimated Generation Service Tariff Cost for Small Commercial Class	Estimated Generation Service Market Cost for Small Commercial Class	Delta
Jan-05	54,828	\$16,271,712	\$11,428,371	\$3,843,341
Feb-05	54,828	\$14,285,029	\$10,222,573	\$4,042,456
Mar-05	54,828	\$15,083,409	\$13,918,948	\$1,146,463
Apr-05	54,828	\$14,281,221	\$13,306,813	\$974,408
May-05	54,828	\$14,939,315	\$10,846,236	\$4,093,079
Jun-05	54,828	\$16,938,284	\$15,851,890	\$986,394
Jul-05	54,828	\$17,341,818	\$18,518,062	(\$1,174,444)
Aug-05	54,828	\$17,508,397	\$21,679,285	(\$4,172,888)
Sep-05	54,828	\$15,981,004	\$17,914,396	(\$1,933,392)
Oct-05	54,828	\$15,501,248	\$15,543,932	(\$42,687)
Nov-05	54,828	\$15,003,570	\$13,834,592	\$1,168,978
Dec-05	54,828	\$15,518,358	\$20,788,029	(\$5,267,671)
Jan-06	54,828	\$16,304,846	\$12,450,941	\$2,853,705
Feb-06	54,828	\$14,252,690	\$11,127,280	\$3,125,301
Mar-06	54,828	\$15,021,802	\$12,084,981	\$2,936,821
Apr-06	54,828	\$14,180,679	\$12,416,278	\$1,744,301
May-06	54,828	\$15,105,736	\$12,108,813	\$2,996,922
Jun-06	54,828	\$18,845,265	\$13,859,305	\$3,285,960
Jul-06	54,828	\$17,417,477	\$18,649,991	(\$77,486)
Aug-06	54,828	\$17,484,459	\$18,808,717	(\$1,324,258)
Sep-06	54,828	\$15,832,357	\$10,812,959	\$5,219,398
Oct-06	54,828	\$15,619,286	\$12,228,094	\$3,391,172
Nov-06	54,828	\$15,029,950	\$12,427,833	\$2,602,116
Total for Analysis Period		\$359,786,279	\$328,622,317	\$31,262,962