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BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

PUCO

In the Matter of the Application of	)	
Columbus Southern Power Company and	)	
Ohio Power Company for Authority to	)	Case No. 11-346-EL-SSO
Establish a Standard Service Offer	)	Case No. 11-348-EL-SSO
Pursuant to §4928.143, Ohio Rev. Code,	)	
in the Form of an Electric Security Plan.	)	

In the Matter of the Application of	)	
Columbus Southern Power Company and	)	Case No. 11-349-EL-AAM
Ohio Power Company for Approval of	)	Case No. 11-350-EL-AAM
Certain Accounting Authority.	)	

DIRECT TESTIMONY OF
DR. CHANTALE LACASSE
ON BEHALF OF
COLUMBUS SOUTHERN POWER COMPANY
AND
OHIO POWER COMPANY

Filed July 6, 2011

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CHANTALE LACASSE

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ON BEHALF OF
COLUMBUS SOUTHERN POWER COMPANY
AND
OHIO POWER COMPANY

1 **PERSONAL DATA**

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

3 A. My name is Chantale LaCasse. My business address is 1255 23rd St NW, Washington,
4 DC, 20037.

5 **Q. PLEASE INDICATE BY WHOM YOU ARE EMPLOYED AND IN WHAT**
6 **CAPACITY.**

7 A. I am a Senior Vice President with NERA Economic Consulting (“NERA”).

8 **BUSINESS EXPERIENCE**

9 **Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND**
10 **AND BUSINESS EXPERIENCE.**

11 A. I received a Bachelor of Social Science Degree in Economics from the University of
12 Ottawa (Canada) in 1983 and a Bachelor of Arts Degree in Mathematics also from the
13 University of Ottawa in 1984. I received a Master of Arts Degree in Economics in
14 1986 and a Ph.D. in Economics in 1991 from the University of Western Ontario
15 (Canada).

16 Before joining NERA in 2001, I held various full-time academic positions in
17 Canada where I taught economics to graduate and undergraduate students, and
18 conducted original research on competitive bidding processes and other issues in

1 economic policy. My consulting experience at NERA has principally consisted of
2 designing and implementing competitive bidding processes for the procurement of
3 default service for electric utilities. My recent engagements include assisting electric
4 utilities in Pennsylvania and in New Jersey with the design and implementation of
5 competitive bidding processes for the procurement of default service for their
6 customers. In particular, I lead the NERA team that manages the default service
7 auctions for the FirstEnergy Pennsylvania electric utilities (Pennsylvania Power
8 Company, Metropolitan Edison Company, and Pennsylvania Electric Company).

9 In 2004 the Public Utilities Commission of Ohio (“PUCO” or “Commission”)
10 ordered the FirstEnergy Ohio Electric Distribution Utilities (“EDUs”) to hold a
11 descending-price clock auction as a market test for their filed Rate Stabilization Plan.
12 The PUCO had the choice between accepting the results of the auction to procure
13 full-requirements service for FirstEnergy’s Standard Service Offer (“SSO”) Load for
14 the period January 1, 2006 to December 31, 2008, and rejecting the auction results in
15 favor of the Rate Stabilization Plan Pricing. I provided advice regarding the detailed
16 auction rules, designed the bidding procedure, and served as Auction Manager. I am
17 familiar with the auctions that the FirstEnergy Ohio EDUs currently conduct to
18 procure full-requirements supply for SSO customers under their Electric Security
19 Plan (“ESP”). The auctions use a descending-price clock format in which bidders bid
20 on all products simultaneously over multiple rounds. In a round, a bidder bids by
21 stating the number of tranches it wishes to supply at prices announced by the Auction
22 Manager. If there is excess supply on a product, the price is reduced in the next
23 round, and bidders submit new bids at the reduced prices. The auction closes when

1 supply is just sufficient for what is needed. The Ohio market test auction that I
2 managed and the auctions of the Pennsylvania FirstEnergy EDUs that I currently
3 implement, among others, also use this same descending-clock auction format to
4 procure full-requirements tranches. My curriculum vitae is attached as Exhibit CL-1.

5 **Q. HAVE YOU SUBMITTED TESTIMONY BEFORE AS A WITNESS BEFORE A**
6 **REGULATORY COMMISSION?**

7 A. Yes. I have testified or submitted testimony before regulatory commissions in the
8 states of Illinois, New Jersey, Pennsylvania, Texas, and before the Federal Energy
9 Regulatory Commission. Additionally, I have submitted testimony before the Public
10 Utilities Commission of Ohio in Case No. 08-917-EL-SSO and in Case No. 08-918-
11 EL-SSO on behalf of Columbus Southern Power Company (“CSP”) and Ohio Power
12 Company (“OPCo”), referred to collectively as “the Company” or “AEP Ohio”.

13 **PURPOSE OF TESTIMONY**

14 **Q. WHAT ARE THE PURPOSES OF YOUR TESTIMONY IN THIS**
15 **PROCEEDING?**

16 A. The purposes of my testimony are:

- 17 • To explain the nature of the shopping-related risk faced by any SSO provider,
18 whether an EDU or a winning supplier at an SSO auction;
- 19 • To discuss methods by which the cost associated with this shopping-related risk
20 may be quantified;
- 21 • To explain that the valuation of an option is an appropriate method to measure the
22 cost associated with this shopping-related risk; and
- 23 • To describe additional analyses associated with shopping-related risk.

1 **Q. WHAT MATERIALS HAVE YOU REVIEWED IN PREPARING THIS**
2 **TESTIMONY?**

3 A. I have reviewed testimony and analyses related to the calculation of the POLR charge
4 in Case No. 08-917-EL-SSO and in Case No. 08-918-EL-SSO (“the “09-11 ESP”)
5 filed by the Company and I have reviewed testimony and analyses related to the
6 calculation of the POLR charge in Case No. 11-346-EL-SSO and in Case No. 11-348-
7 EL-SSO (the “12-14 ESP”) filed by the Company. I have had an opportunity to
8 discuss the POLR option analyses with AEP personnel. I have also reviewed the
9 Company’s responses to interrogatories in this proceeding and the testimony filed by
10 intervenors on remand in the 09-11 ESP.

11 **Q. WHAT EXHIBITS ARE YOU SPONSORING IN THIS PROCEEDING?**

12 A. I am sponsoring Exhibits CL-1 through CL-2.

13 **SSO PROVIDERS INCUR COSTS ASSOCIATED WITH SHOPPING-RELATED**
14 **RISK**

15 **Q. ARE YOU FAMILIAR WITH THE EDU’S OBLIGATION TO PROVIDE A**
16 **SSO?**

17 A. Yes. I am familiar with the provisions of Ohio law requiring EDUs such as AEP
18 Ohio to provide to all consumers, on a comparable and non-discriminatory basis
19 within its certified service territory, a SSO of all competitive retail electric services
20 necessary to maintain essential electric service, including a firm supply of electric
21 generation service. I understand that EDUs can provide their SSO through either an
22 ESP or a Market Rate Offer (“MRO”).

1 Under either option, the EDU's POLR obligation is to provide default
2 generation service for any customer that does not acquire generation service from a
3 competitive retail electric service ("CRES") provider at a price (the "SSO Price") that
4 is substantially fixed. Another obligation of the EDU is to provide the SSO to any
5 group of customers served by a CRES provider that defaults on its service obligations.
6 Collectively, I will refer to these obligations as the EDU's POLR obligations, which
7 exist under both the ESP and MRO options.

8 **Q. WHAT IS THE NATURE OF THE SHOPPING-RELATED RISK AND COSTS**
9 **THAT THE EDU ASSUMES AS A RESULT OF ITS POLR OBLIGATIONS**
10 **AND THE CUSTOMERS' ABILITY TO SWITCH?**

11 A. The EDU must honor the SSO Price regardless of market price fluctuations during the
12 term of the rate plan. The customers' ability to shop and market price fluctuations
13 lead to customer demand that is variable and uncertain, which imposes a costly risk
14 upon the EDU. The obligation to maintain a stable price in the face of demand that
15 fluctuates with market conditions prevents the EDU from optimally managing its
16 generation on a forward basis and imposes costs on the EDU in conditions both of
17 rising and of declining market prices.

18 If market prices fall sufficiently, CRES providers will be able to beat the SSO
19 price and customers will have an incentive to take service from a CRES provider. An
20 EDU, such as AEP Ohio, that uses its own generation assets to meet its SSO
21 obligation would find that a portion of the output that it expected to use to serve SSO
22 customers would instead need to be sold at below expected prices leading to a loss in
23 revenue. If instead market prices rise sufficiently, customers that are taking service

1 from a CRES provider will find it advantageous to return to the SSO. An EDU would
2 be required to divert a portion of the output of its own generation assets or purchase
3 from the market to meet its SSO obligation at a higher than expected cost. The EDU
4 takes on a costly risk in conditions both of market prices that rise and of market prices
5 that decline with respect to the SSO price.

6 **Q. WHAT WOULD BE THE SITUATION OF AN EDU WITHOUT POLR**
7 **OBLIGATIONS?**

8 Absent its POLR obligations, an EDU that uses its own generation assets would be in
9 a position to manage its generation output optimally on a forward basis. A significant
10 aspect of optimally managing generation output is hedging the financial exposure to
11 the spot market through forward sales. The ESP does not provide a firm hedge
12 because customers may leave and take service from a CRES provider when prices
13 decline. Further, when customers do take service from a CRES provider, the EDU
14 retains the obligation to serve these customers should they return to the SSO, making
15 forward sales outside of the ESP that could be used to hedge the financial exposure to
16 the spot market risky. An electric utility without POLR obligations could use a fully
17 flexible approach in managing its generation. Such an electric utility could, on the
18 basis of current market conditions and its expectation of the future, have a varying
19 portion of its generation output locked in at prevailing market prices. For example,
20 after a period of rising market prices, an EDU that would expect market prices to start
21 declining may choose to lock in a greater proportion of its generation output at
22 prevailing market prices. The EDU in Ohio with POLR obligations cannot avail itself
23 of the full array of strategies for managing its generation.

1 **Q. WHAT COSTS DOES AN EDU FACE AS A RESULT OF ITS POLR**
2 **OBLIGATIONS UNDER AN ESP AND THE CUSTOMERS' ABILITY TO**
3 **SWITCH?**

4 Under an ESP, the EDU will propose and the Commission will determine an ESP
5 price. If SSO customers did not have the ability to shop, so that demand did not vary
6 with market conditions, the ESP price would fully recover the requested average
7 generation rate, which would result in a specific revenue for the Company. But
8 because SSO customers can shop, the EDU assumes additional risk and costs. If
9 market prices fall sufficiently so that SSO customers shop, a portion of the generation
10 output that the EDU expected would serve SSO customers instead would be sold at
11 prices below the ESP price, leading to a shortfall in revenue. If instead market prices
12 rise sufficiently so that customers taking service from CRES providers return to the
13 SSO, the EDU would divert a portion of the generation output that could have been
14 sold at those higher market prices to serve SSO customers, or the EDU would
15 purchase from the market at those higher market prices to serve SSO customers,
16 leading to additional unexpected cost. Absent compensation for this shopping-related
17 risk and these additional costs, an EDU whose customers can shop would be in a
18 worse position than an EDU whose customers do not shop, and this is the case
19 whether prices rise or fall during the ESP period.

20 **Q. HOW DO EDUs WITHOUT GENERATION ASSETS MANAGE THE**
21 **SHOPPING-RELATED RISKS OF THEIR SSO CUSTOMERS?**

22 A. A common method used by EDUs without generation assets to manage the costs and
23 risks associated with POLR obligations is to transfer these risks to procure supply for

1 their SSO customers using a competitive bidding process for full-requirements
2 contracts. Under such contracts, winning bidders agree to bear the various POLR
3 risks including shopping-related risk. A competitive procurement process is used to
4 arrive at a market determination of the costs associated with providing full-
5 requirements service and all related risks. Bidders must quantify the costs of these
6 risks prior to bidding. I expect that the clearing prices for auctions conducted to date
7 in Ohio reflect the bidders' assessment of all risks associated with providing SSO
8 supply including shopping-related risk since winning suppliers are required to meet a
9 percentage of SSO load that fluctuates with shopping. An EDU that uses such a
10 procurement process in effect transfers the POLR risks to the winning bidders.

11 **Q. HOW DO BIDDERS IN SSO AUCTIONS ASSESS SHOPPING-RELATED RISK?**

12 A. I expect bidders in SSO auctions to utilize different sophisticated and proprietary
13 strategies to manage POLR risks, including shopping-related risk, which they bear
14 when they accept the obligations of the full-requirements contract. A bidder in an
15 SSO auction can be expected to quantify the cost of POLR risks, including shopping-
16 related risk, on the basis of the strategies that it employs to manage such risks. For
17 example, in an environment with little or no shopping, a bidder may partially hedge
18 the risk of increased shopping by acquiring an instrument that would increase in value
19 if market prices declined (such as a gas or power put option). Conversely, in an
20 environment with significant shopping, a bidder may partially hedge the risk of
21 returning customers by acquiring an instrument that would increase in value if market
22 prices increased (such as a gas or power call option). The costs of such instruments
23 would be part of the quantification of such risks. A bidder that does not hedge a

1 particular risk, such as shopping-related risk, may use a financial model such as
2 Black-Scholes (or Black) or statistical analyses such as Monte Carlo simulations to
3 price residual risk and measure the cost of self-insurance. The competitive aspect of
4 the procurement process means that winning bidders tend to be those that are most
5 efficient at managing POLR risks. The POLR price paid by SSO customers includes
6 the bidders' costs for bearing the POLR risks associated with supplying these
7 customers.

8 **Q. CAN SHOPPING-RELATED RISK BE ESTIMATED BY COMPARING THE**
9 **VISIBLE COST COMPONENTS OF SSO SUPPLY AND THE PRICE BID BY**
10 **BIDDERS AT SSO AUCTIONS?**

11 A. The cost of meeting a POLR load shape can be estimated using market data on the
12 prices of each cost component and hourly loads. The difference between this estimate
13 and the price that results from a competitive solicitation for full-requirements
14 contracts would include all risks faced by the SSO supplier, including uncertainty in
15 demand, cost component risk, and shopping-related risk. This measure captures all
16 risks that the SSO supplier assumes together and does not separately estimate
17 shopping-related risk.

18 **Q. WHY IS THE DIFFERENCE BETWEEN THE PRICE FROM THE SSO**
19 **AUCTION AND THE COST OF MEETING A POLR LOAD SHAPE**
20 **SOMETIMES REFERRED TO AS A PREMIUM?**

21 A. The difference between the estimate of costs to meet the POLR load shape and the
22 price that results from a competitive solicitation for full-requirements is sometimes
23 referred to as a "premium". It is in fact in some ways analogous to an insurance

1 premium as supply purchased through the auction provides customers with the
2 certainty of a stable POLR price in the face of fluctuating market conditions. Should
3 market prices rise, an SSO customer may remain on the SSO and avoid the rise in
4 market prices. A customer taking service from a CRES provider (and who pays the
5 POLR charge) may return to the SSO and avoid paying the increase in the price of its
6 retail electric service. The SSO provides customers with an insurance policy against
7 rising market prices while providing them the opportunity to take advantage of
8 declining market prices by shopping. This insurance policy provides customers the
9 security of a price for their electric service that need not exceed the SSO price
10 approved by the Commission. Like any insurance policy, it is valuable for the
11 customer to be insured whether or not prices in fact rise during the SSO term. Like
12 any insurance policy, there is a cost to the insurer of providing the protection. The
13 premium reflects the costs of bearing POLR risks recognizing that there are a variety
14 of ways to manage such risks.

15 **Q. DOES AN EDU THAT USES ITS OWN GENERATION ASSETS BEAR**
16 **SHOPPING-RELATED RISK TO THE SAME DEGREE AS A WINNING**
17 **SUPPLIER IN AN SSO AUCTION?**

18 A. Yes. An EDU that uses its own generation assets to meet its SSO obligation also
19 bears shopping-related risk to the same degree as winning bidders in a competitive
20 solicitation for SSO supply. The winning bidder in a competitive solicitation for SSO
21 supply is compensated for bearing shopping-related risk with respect to the portion of
22 POLR load that it serves. An EDU that uses its own generation assets to meet its
23 SSO obligation bears the shopping-related risk for 100% of the SSO load. Such an

1 EDU accepts effectively the same POLR obligations as a winning bidder that wins a
2 full-requirements contract in a competitive solicitation but it does so for 100% of the
3 SSO load.

4 **Q. WOULD METHODS THAT BIDDERS IN SSO AUCTIONS USE TO**
5 **QUANTIFY SHOPPING-RELATED RISK BE APPLICABLE TO AN EDU**
6 **THAT USES ITS OWN GENERATION ASSETS TO MEET ITS POLR**
7 **OBLIGATIONS?**

8 A. Yes. Since obligations and risks are common to both situations, namely the situation
9 of a bidder that wins at an SSO auction and serves a percentage of the POLR load and
10 the situation of an EDU that uses its own generation assets to meet its POLR
11 obligations, I believe it is reasonable and appropriate to assume that the approaches
12 used to quantify shopping-related risk would be very similar in the two situations.
13 The same methods described above in connection with bidders in SSO auctions could
14 be applied by an EDU to quantify its cost for assuming shopping-related risk. I do
15 not mean that the EDU and the winning bidder in an SSO auction are in identical
16 circumstances. However, both the EDU and the winning bidder face shopping-
17 related risk and the tools that can be used to cost such risk are common to both.

18 **Q. ARE YOU AWARE OF ANALYSES THAT QUANTIFY SHOPPING-**
19 **RELATED RISK FOR SSO-TYPE SERVICE?**

20 A. I am aware of analyses that quantify risk factors associated with providing
21 supply for customers that take SSO-type service and these risk factors include
22 shopping-related risk. One such study was prepared by The Northbridge Group
23 (“Northbridge”) for Philadelphia Electric Company (“PECO”). The study compared

1 the prices from competitive procurement of supply for SSO-type service in various
2 states to a “build-up” of the costs of providing the full-requirements service absent
3 uncertainty or risk. A significant element of that risk is shopping-related risk.
4 Exhibit CL-2 shows the results for the Northbridge study. The estimated percentage
5 allowance for risks over the cost items ranges from 3% to 8%, with only one
6 observation below 4%. The majority of observations are between 5% and 8%. When
7 applied to a Competitive Benchmark in the \$80/MWh range, the resulting premium is
8 between \$4/MWh and \$6.4/MWh.

9 This premium covers more risks than just shopping-related risk. However, in
10 the states examined by Northbridge, “opt-out aggregation” is not a factor and opt-out
11 aggregation would have the effect of exacerbating shopping-related risk. While not
12 completely comparable, there are many similarities and offsetting factors that render
13 the premium analysis of Northbridge at the least informative. I would note that
14 Northbridge’s analysis was intended to demonstrate that the premium in prices from
15 the competitive procurement of supply for SSO-type service was not excessive and
16 thus there was no bias in the study toward overstating the premium.

17 **Q. CAN YOU CITE TO ANOTHER STUDY?**

18 A. Yes. The Staff of the Illinois Commerce Commission (“ICC Staff”) in a report
19 entitled “Post-Auction Public Report of the Staff” analyzed the results of the 2006
20 Illinois full-requirements auction. Using a methodology similar to Northbridge, ICC
21 Staff quantified the premium embedded in the price over and above the visible market
22 price of the components of full-requirements service. The table below provides their
23 results. The ICC staff quantified premiums of 7% to 12% for Commonwealth Edison

Company (“ComEd”) and 18% to 25% for the Ameren Illinois Utilities (“Ameren”). Again, while shopping-related risk is not the only risk quantified by this analysis, the premiums are certainly informative.

Comparison of Auction Clearing Prices and Staff Projections without Risk Premiums Added						
Customer Classes	Utility	Auction Products	Auction Prices	Projections w/out Risk Premiums	Implied Premiums	Implied Premium Percent
Residential and Small to Medium Commercial Customers	ComEd	CPP-B 17-mo	\$63.96	\$59.74	\$4.22	7%
		CPP-B 29-mo	\$64.00	\$57.84	\$6.17	11%
		CPP-B 41-mo	\$63.33	\$56.46	\$6.87	12%
	Ameren	BGS-FP 17-mo	\$64.77	\$54.68	\$10.09	18%
		BGS-FP 29-mo	\$64.75	\$53.72	\$11.03	21%
		BGS-FP 41-mo	\$66.05	\$52.69	\$13.36	25%

THE COMPANY’S METHOD TO ESTIMATE THE COST ASSOCIATED WITH SHOPPING-RELATED RISK IS REASONABLE

Q. HOW DID THE COMPANY QUANTIFY SHOPPING-RELATED RISK?

A. The Company quantified the shopping-related risk by calculating the value of an option using a Black model implemented with a binomial expansion that implemented the switching rules appropriate to each customer class. Company Witness Thomas refers to this model as the constrained option model (Direct Testimony, p. 18, line 8). All calculations were done on a per kWh basis, by customer class.

1 Q. IS THIS A REASONABLE METHOD OF QUANTIFYING SHOPPING-
2 RELATED RISK?

3 A. Yes. The value of the option is essentially the expected value of the difference
4 between the ESP price and the market price at which customers choose to shop. This
5 is also the amount by which realized revenue for the EDU can be expected to be
6 below the ESP revenue that the EDU would have received absent the customer
7 shopping. The model assumes that the EDU takes on its POLR obligations at the ESP
8 strike price and it assumes that if market prices exceed the ESP price customers will
9 not switch as the ESP price is more economically advantageous.

10 Q. DOES AN OPTION VALUATION MEASURE THE COST INCURRED BY
11 THE EDU?

12 A. An option valuation measures the expected cost on an *a priori* basis. While the actual,
13 after-the-fact cost may differ from the expected cost, from a ratemaking perspective,
14 the expected cost is the relevant measure. The EDU may choose to hedge a portion
15 of the cost or to absorb the cost of the shopping-related risk. Before the fact, the
16 expected cost is measured and reflected in rates so that customers receive an ESP
17 price that is mostly fixed. After the fact, the cost would vary. Reflecting this
18 varying cost in rates would defeat the purpose of an ESP price, which is to provide
19 customers a price that is mostly fixed. Instead of the Company managing and
20 hedging the shopping-related risk, these activities would be moved into a regulated
21 framework where these costs would need to be reviewed for prudence. The creativity
22 and effectiveness with which the Company manages these risks could then be

restricted. However, the expected cost exists regardless of how the EDU ultimately chooses to manage that risk.

Q. DO YOU BELIEVE IT IS LIKELY THAT THE CONSTRAINED OPTION MODEL MAY NOT BE ABLE TO CAPTURE THE FULL COMPLEXITY OF EACH FACTOR THAT MAY IMPACT THE VALUE OF THE OPTION?

A. Yes, a model is a model and not an exact reflection of what would happen. The calculation of the option value is complicated and I would expect this or any model to make a number of simplifying assumptions that may not reflect the full complexity of the situation. The fact that some parameters or assumptions may not be modeled precisely does not mean that the estimates of shopping-related risk using an option valuation method need be biased or that reasonable measurements cannot be made.

Q. DOES THE CONSTRAINED OPTION MODEL TAKE INTO ACCOUNT THAT SOME CUSTOMERS MAY NOT SWITCH TO A CRES PROVIDER WHEN IT IS ECONOMICALLY ADVANTAGEOUS TO DO SO?

A. No, it does not. The constrained option model does not account for the fact that not all customers necessarily switch to a CRES provider the moment that it may be advantageous to do so. There are transaction costs that vary depending on the customer.

Q. IN YOUR VIEW, WOULD THIS FACTOR TEND TO UNDERSTATE OR OVERSTATE THE POLR CHARGE?

A. The presence of transaction costs would imply that, at any given time when prices have fallen compared to the ESP price, some but not all customers may consider switching to a CRES provider. This factor limits the degree to which customers take

1 full advantage of the option and thus limits the cost of providing the option. In my
2 view, this factor tends to overstate the POLR charge.

3 **Q. DOES THE CONSTRAINED OPTION MODEL USE ANNUAL OR**
4 **MONTHLY VOLATILITIES? WOULD THIS FACTOR TEND TO**
5 **UNDERSTATE OR OVERSTATE THE POLR CHARGE?**

6 A. The constrained option model uses a single, annual volatility, as discussed by
7 Company Witness Thomas. Customers, with a limited set of restrictions, can switch
8 monthly and as monthly volatilities are greater than annual volatilities, the cost of the
9 monthly option is not fully captured. In my view, this factor tends to understate the
10 POLR charge.

11 **Q. DOES THE CONSTRAINED OPTION MODEL CONSIDER THE FULL**
12 **DYNAMICS OF MARKET PRICES? WOULD THIS FACTOR TEND TO**
13 **UNDERSTATE OR OVERSTATE THE POLR CHARGE?**

14 A. No, the constrained option model does not consider the full dynamics of market
15 prices. The constrained option model only considers whether prices either rise or fall.
16 The constrained option model does not consider more complex scenarios where, for
17 example, market prices may first fall but then rise again afterwards.

18 In my view, this factor tends to understate the POLR charge. Consideration of
19 the full dynamics of market prices will tend to increase the cost of providing the
20 option and thus increase the POLR charge. For example, if prices decline and it is
21 economically rational for customers to choose service from a CRES provider, the
22 EDU would still need to consider the possibility that prices may turn around and rise
23 sufficiently subsequent to the decline that customers would want to switch back to the

1 SSO. The EDU could leave its supply unhedged and stand ready to serve returning
2 customers. In that case, the EDU is exposed to prices falling down even further, and
3 to a greater shortfall of revenue compared to expectations as the EDU sells its
4 generation output at an even lower price. Alternatively, the EDU could enter into a
5 new sale for the remaining term of the ESP at the lower, then-market price. If prices
6 turn around and rise sufficiently that customers return, the EDU will have to divert a
7 portion of the output of its own generation assets or purchase from the market to meet
8 its SSO obligation at a higher than expected cost.

9 **Q. DOES THE MODEL ASSUME THAT THE OPTION PREMIUM IS PAID AT**
10 **THE DATE AT WHICH THE OPTION IS VALUED? WOULD THIS**
11 **FACTOR TEND TO UNDERSTATE OR OVERSTATE THE POLR CHARGE?**

12 A. Yes, the constrained option model assumes that the option premium is paid at the date
13 at which the option is valued. However, under the ESP, the POLR charge is paid
14 over the course of the ESP or on average 14.5 months after the valuation date. Given
15 a 1% discount rate, this would lead to about a 1.2% understatement of the POLR
16 charge.

17 **Q. IS IT POSSIBLE TO ESTIMATE THE MAGNITUDE OF THE FACTORS**
18 **THAT YOU TESTIFY WOULD TEND TO OVERSTATE THE POLR**
19 **CHARGE?**

20 A. I identify one source of overstatement, namely the possibility that not all customers
21 may avail themselves at once of the option the moment that it is economically
22 advantageous to do so. This factor is difficult to quantify. However, I have reviewed
23 Ohio switching and aggregation data, and I note that a significant portion of customer

CHANTALE LACASSE
SENIOR VICE PRESIDENT

Dr. Chantale LaCasse is a Senior Vice President with NERA Economic Consulting. Her practice concentrates on helping energy clients design, implement, and manage auctions. Before joining NERA in 2001, Dr. LaCasse was a respected academic in Canada; she trained Ph.D. students in game theory and she conducted research in auctions, competition policy, and other issues in economic policy. At NERA, Dr. LaCasse testified as an expert witness before state regulatory agencies on matters related to the design and implementation of auctions. She has provided conceptual advice to utilities and regulators on the design of auctions for and she has developed detailed rules for their implementation. She has provided advice on competition issues and has held the TD MacDonald Chair at the Competition Bureau. She has been involved in the design and management of auctions in several jurisdictions in the United States, including New Jersey, Illinois, Ohio, Pennsylvania, as well as in other countries such as Canada, Spain, and Ireland. Dr. LaCasse is fluent in English and French and has a good knowledge of Spanish.

Education

University of Western Ontario

Ph.D., Economics, 1991

M.A., Economics, 1986

University of Ottawa

B.A. Honors, Mathematics, 1984

B.Soc.Sc. Honors, Economics, 1983

Professional Experience

2005-	NERA Economic Consulting
	Senior Vice President
	Provide advice on competitive bidding processes, auctions, procurement, market design, regulatory issues, and antitrust matters.
2003-2005	Vice President
2001-2003	Senior Consultant
	Member of team that advised energy market participants on market design, regulatory issues, and antitrust matters.
1998-2000	University of Alberta, Department of Economics
	Associate Professor
1997-1998	Competition Bureau, Industry Canada
	T.D. MacDonald Chair of Industrial Economics
1997	Universitat Autònoma de Barcelona, Departament d'Economia i d'Història Econòmica
	Visiting Professor
1996-1997	University of Toronto, Institute for Policy Analysis
	Visiting Professor
1998	University of Ottawa, Department of Economics
	Associate Professor
1991-1998	Assistant Professor
1990-1991	Lecturer
1989-1990	Brock University, Department of Economics
	Lecturer

Honors and Professional Activities

John Vanderkamp Prize for the best article in *Canadian Public Policy/Analyse de politiques* for 2000 (for the article with Vicky Barham and Rose Anne Devlin, "Are the New Child-Support Guidelines 'Adequate' or 'Reasonable'?" Vol. XXVI, No. 1)

Named T.D. MacDonald Chair of Industrial Economics at the Competition Bureau, Industry Canada, 1997-1998

Courses taught include Microeconomics, Law and Economics, Industrial Organization, Game Theory, Probability, and Statistics

Professional Development for attorneys, *The Economics of Competition Policy*, Competition Bureau, March 1998

Referee, *L'actualité économique*, *Journal of Labor Economics*, *The American Economic Review*, *The Energy Journal*, *Canadian Journal of Economics*, *Dialogue*

Consulting Experience

Auction Manager for the four New Jersey Electric Distribution Companies for the sale of their Solar Renewable Energy Credits.

Advice to the New England Independent System Operator on rules of the market for capacity.

Procurement Administrator for the Illinois Power Agency's 2010 procurement of renewable energy and renewable energy credits through twenty-year contracts.

Solicitation Manager for Jersey Central Power & Light, Atlantic City Electric, and Rockland Electric in their SREC-Based Financing Program for the procurement of long-term solar contracts.

Auction Manager for Public Service Electric and Gas for the sale of their Solar Renewable Energy Credits.

Expert testimony and advice to Penn Power concerning its Default Service Program in Pennsylvania.

Lead of team serving as Independent Evaluator for Met-Ed, Penelec, and Penn Power implementing its descending-price auctions to procure supply under their Default Service Programs in Pennsylvania.

Part of team retained by the Illinois Power Agency to manage RFPs for block energy and renewable energy credits on behalf of Commonwealth Edison:

- 2011

- 2010
- 2009

Part of team advising PECO and implementing its RFPs to procure supply under its Default Service Program

Part of team that manages RFPs for PPL Electric Utilities to procure supply under its Default Service Program in Pennsylvania.

Lead of team advising Commonwealth Edison Company on its Procurement Plan and the design of RFPs for block energy and renewable energy products.

Lead of team that provides advice to the Legal Services Commission in its design of a Best Value Tendering system for criminal defense services (UK).

Part of team that designed and managed the CESUR auctions for the Comisión Nacional de Energía (Spain).

Advice to NY Independent System Operator on their design of a forward capacity market.

Bidding advice for an energy auction client.

Part of team that managed RFPs for PPL Electric Utilities (Pennsylvania) for its Bridge Plan.

Auction Manager for Commonwealth Edison Company and the Ameren Utilities for their procurement of supply for default service (2005-2006).

Part of team that advised Penelec and Met-Ed on their RFP for retail customers in Pennsylvania.

Part of team that advised Penn Power on its RFP for POLR Load in Pennsylvania and that managed the process.

Expert testimony and auction design advice for Commonwealth Edison Company and the Ameren Utilities in support of their proposal to use an auction for the procurement of their default service customers (2005).

Part of team that served as Independent Auction Manager for a clock auction for the FirstEnergy Ohio Utilities:

- 2005
- 2004

Part of team that advised Acquirente Unico on power auction.

Part of team that advised the Ministry of Energy (Ontario, Canada) for their procurement of new generation capacity.

Expert testimony on the use of sealed bid auctions for the sale of generation assets.

Auction Manager for the four New Jersey utilities (PSE&G, JCP&L, AECO, and RECO) in their electronic clock auctions (fixed price and hourly electric price) for the provision of Basic Generation Service:

- 2010-2011
- 2009-2010
- 2008-2009
- 2007-2008
- 2006-2007
- 2005-2006
- 2004-2005
- 2003-2004
- 2002-2003
- 2001-2002.

Part of team that advised the four New Jersey utilities (PSE&G, JCP&L, AECO, RECO) on their proposal for an auction for the provision of Basic Generation Service:

- 2010-2011
- 2009-2010
- 2008-2009
- 2007-2008
- 2006-2007
- 2005-2006
- 2004-2005
- 2003-2004
- 2002-2003
- 2001-2002.

Advice on market definition in Canadian competition matter.

Part of team that advised PJM Interconnection, New York ISO, and the New England ISO on the design of markets for capacity.

Financial evaluation of bids for the Commission of Energy Regulation (Ireland) in their tender for additional capacity.

Part of team that advised the Commission of Energy Regulation (Ireland) regarding their tender for additional capacity.

RFP Manager for JCP&L's RFP for Green Power.

Part of team that advised Public Service Electric & Gas on design of auction for provision of Basic Generation Service.

Part of NERA and Navigant Consulting team that reported on competitiveness of Alberta wholesale electricity market and advised the Alberta Balancing Pool on long-term options for management of unsold Power Purchase Arrangements.

Part of team that advised Singapore IDA on design on Singapore 3G and 2G electronic auctions.

Provided on-site bidding advice for EPCOR in the PPA auction (Alberta, Canada).

Provided advice to Industry Canada in preparation for their first spectrum auction.

As part of a team from the Competition Bureau, evaluated spectrum auction rules for Canada.

Part of team that first drafted the Intellectual Property Enforcement Guidelines issued by the Competition Bureau, Industry Canada.

Provided expert opinion on a merger, a price-fixing case and a monopolization case while T.D. MacDonald Chair at the Competition Bureau.

Testimony

Regulatory hearings held by the New Jersey Board of Public Utilities. September 2010. Oral testimony regarding the advantages of the auction process proposed by the four New Jersey utilities.

Pennsylvania Power Company (Docket No. P-2010-2157862). Petition for the approval of its Default Service Plan filed with the Commonwealth of Pennsylvania Public Utility Commission. Direct Testimony (February 2010).

Regulatory hearings held by the New Jersey Board of Public Utilities. September 2009. Oral testimony regarding the advantages of the auction process proposed by the four New Jersey utilities.

Metropolitan Edison Company (Docket No. P-2009-2093053) and Pennsylvania Electric Company (Docket No. P-2009-2093054). Petition for the approval of their Default Service Plan filed with the Commonwealth of Pennsylvania Public Utility Commission. Direct Testimony (March 10, 2009). Rebuttal Testimony (June 12, 2009).

PECO Energy Company, Docket No. P-2008-2062739, testimony on behalf of the Petition of PECO Energy Company for Approval of its Default Service Program and Rate Mitigation Plan filed with the Commonwealth of Pennsylvania Public Utility Commission. Direct testimony (September 10, 2008), Supplemental testimony (November 14, 2008). Rebuttal testimony (January 30, 2009).

Regulatory hearings held by the New Jersey Board of Public Utilities. September 2008. Oral testimony regarding the advantages of the auction process proposed by the four New Jersey utilities.

Regulatory hearings held by the New Jersey Board of Public Utilities. September 2007. Oral testimony regarding the advantages of the auction process proposed by the four New Jersey utilities.

Illinois Commerce Commission, Docket No. 06-0800, Investigation of Rider CPP of Commonwealth Edison Company, and Rider MV of Central 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 Orders regarding the Illinois Auction. Direct testimony (March 2007), Rebuttal testimony (April 2007) on potential improvements to the Illinois Auction. Testimony before the Illinois Commerce Commission (April 25, 2007).

Regulatory hearings held by the New Jersey Board of Public Utilities. September 2006. Oral testimony regarding the advantages of the auction process proposed by the four New Jersey utilities.

Committee Hearing of the Telecommunications and Utilities Committee of the New Jersey General Assembly. June 2006. Oral testimony regarding New Jersey procurement of electricity and market trends.

Regulatory hearings held by the New Jersey Board of Public Utilities. April 2006. Oral testimony regarding the procurement process to be used in 2007.

Commonwealth of Pennsylvania Public Utility Commission, Docket No. P-00052188, testimony on behalf of the Petition of Pennsylvania Power Company for approval of their Interim POLR Supply Plan. Direct testimony (October 11, 2005), Supplemental testimony (November 11, 2005) and rebuttal testimony (December 23, 2005). Testimony before the Commonwealth of Pennsylvania Public Utility Commission (January 10, 2006).

Illinois Commerce Commission, Docket 05-0159, Commonwealth Edison Company proposed tariffs filed pursuant to Article IX of the Public Utilities Act defining a competitive supply procurement process and, pursuant to Section 16-112(a) of the Act, establishing a market value methodology to be effective post-2006; providing for Power Purchase Options and for recovery of transmission charges post-2006; and enabling subsequent restructuring of rates and unbundling of prices for bundled service pursuant to Sections 16-109A and 16-111(a) of the Act. Direct testimony (February 2005), Rebuttal testimony (July 2005), Surrebuttal testimony (August 2005) on auction design and management. Testimony before the Illinois Commerce Commission (September 8-9, 2005).

Illinois Commerce Commission, Dockets 05-0160, 05-0161, 05-0162 (consolidated), Central Illinois Light Company, Central Illinois Public Service Company, Illinois Power Company (the "Ameren Companies") proposed tariffs to establish basic generation services, the procurement process by which the Companies will acquire supply to provide basic generation services, and the method by which auction prices will be translated into prices that customers will pay. Direct

testimony (February 2005), Rebuttal testimony (July 2005), and Surrebuttal testimony (August 2005) on auction design and management. Testimony before the Illinois Commerce Commission (September 8-9, 2005).

Regulatory hearings held by the New Jersey Board of Public Utilities. September 2004. Oral testimony regarding the advantages of the auction process proposed by the four New Jersey utilities.

Public Utility Commission of Texas, SOAH Docket No. 473-04-2459 and PUC Docket No. 29206, Application of Texas-New Mexico Power Company, First choice Power, Inc and Texas Generating Company, L.P. to finalize stranded costs under PURA 39.262. Rebuttal Testimony regarding the choice of a sealed bid auction (April 8, 2004). Testimony before the Commission (April 17, 2004).

Regulatory hearings held by the New Jersey Board of Public Utilities. September 2003. Oral testimony regarding the advantages of the auction process proposed by the four New Jersey utilities.

Regulatory hearings held by the New Jersey Board of Public Utilities. September 2002. Oral testimony regarding the advantages of the auction process proposed by the four New Jersey utilities.

Regulatory hearings held by the New Jersey Board of Public Utilities. September 2001. Oral testimony regarding the advantages of the auction process proposed by the four New Jersey utilities.

Publications

“Maryland versus New Jersey: Is There a Best Competitive Bid Process?” (with Thomas Wininger), *The Electricity Journal*, Vol. 20, Issue 3, April 2007, pp. 46-59.

“Chores” (with Clara Ponsatí and Vicky Barham), *Games and Economic Behavior*, Vol. 39, No. 2, May 2002, pp. 237-281.

“The Intellectual Property Enforcement Guidelines and the Treatment of Innovation: Assessment and Comparison with the U.S. approach” (with Brian Rivard), *Canadian Competition Record*, Vol. 20, No. 3, Summer 2001, pp. 90-109.

“Child-Support Guidelines and the Welfare of Children” (with Vicky Barham and Rose Anne Devlin), *Policy Options*, March 2000.

“Are the New Child-Support Guidelines ‘Adequate’ or ‘Reasonable’?” (with Vicky Barham and Rose Anne Devlin), *Canadian Public Policy*, Vol. XXVI, No. 1, 2000.

“Federal Sentencing Guidelines and Mandatory Minimum Sentences: Do Defendants Bargain in the Shadow of the Judge?” (with A. Abigail Payne), *Journal of Law & Economics*, Vol. XLII, No. 1, Part 2, April 1999; reprinted in *The Economics of Crime*, Volume 3, Isaac Ehrlich and Zhiqiang Liu editors, International Library of Critical Writings in Economics series, pp. 274-298.

“Morality's Last Chance” (with Don Ross), Chapter 16 in *Modeling, Rationality, Morality and Evolution*, Peter Danielson (editor), New York: Oxford University Press, 1998, pp. 340-375.

“Secret Reserve Prices in a Bidding Model with a Resale Option” (with Ignatius J. Horstmann), *American Economic Review*, Vol. 87, No. 4, September 1997, pp.663 684.

“Toward a New Philosophy of Positive Economics” (with Don Ross), Dialogue, *Canadian Philosophical Review*, Vol. XXXIV (Special Issue: Economics and Philosophy), No. 3, 1995, pp. 467 93.

“Bid Rigging and the Threat of Government Prosecution,” *RAND Journal of Economics*, Vol. 26, No. 3, Autumn 1995, pp. 398 417.

“On the Renewal of Concern for the Security of Oil Supply” (with André Plourde), *The Energy Journal*, Vol. 16, No. 2, 1995, pp. 1 23.

“The Microeconomic Interpretation of Games” (with Don Ross), *PSA 1994*, Volume 1, D. Hull, M. Forbes and R. Burian eds., Proceedings of the 1994 Biennial Meeting of the Philosophy of Science Association, New Orleans, 1994, pp. 379 387.

“Towards an Operational Definition of Security of Oil Supply” (with André Plourde) in Volume 1 of *Coping with the Energy Future: Markets and Regulations*, Denis Babusiaux, editor; Proceedings of the 15th Annual International Conference of the International Association for Energy Economics, Tours, 1992, pp. F39 F46.

“Reply to Norman, ‘Has Rational Economic Man a Heart?’” (with Don Ross), *Eidos*, VIII, 2, 1991, pp. 235 246.

“Compte Rendu : *Éléments de Microéconomie* par Louis Eeckhoudt et Francis Calcoen,” *L'Actualité Économique*, Vol. 67, No. 3, septembre 1991, pp. 418 421.

Presentations (Last 7 Years)

“Lowering Prices by Raising Costs: Market Rule Responses to ‘Sponsored’ Entry”, presentation and panel discussion, Harvard Electricity Policy Group, Rancho Palos Verdes, California, February 24, 2011.

“The Role of the Independent Evaluator”, presentation and panel discussion, Wholesale Load-Serving Procurement Roundtable, Western Power Trading Forum, May 20, 2008.

“Retail Procurement”, presentation and panel discussion, Harvard Electricity Policy Group forty-eighth plenary session, John F. Kennedy School of Government, Cambridge, Massachusetts, October 4, 2007.

“Managing a Fair and Transparent Auction Process”, NARUC convention, Miami, November 14, 2006.

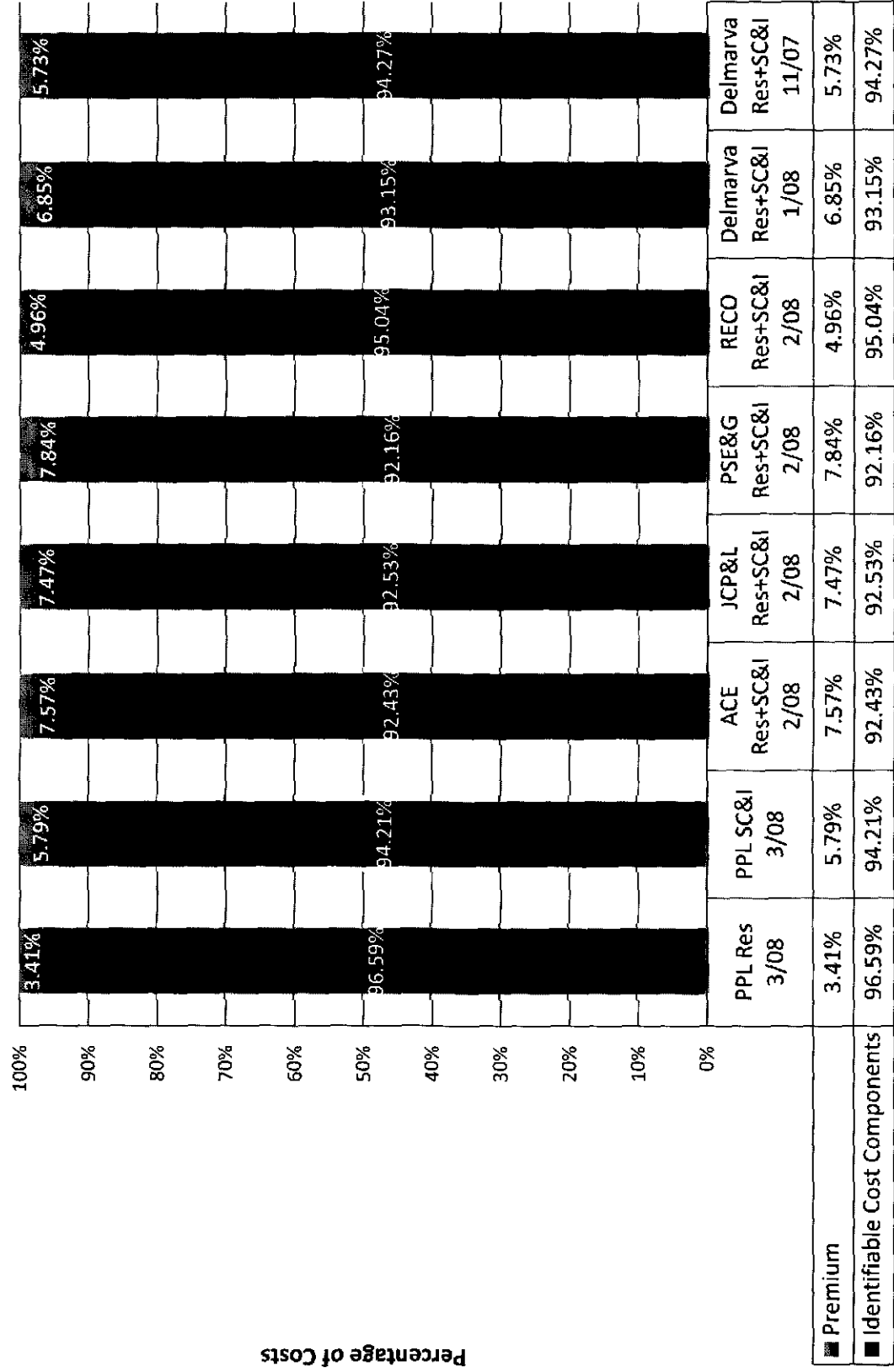
“Challenges of Utility Procurement in a High Cost Environment”, Ninth Annual Energy Conference held by McDermott, Will & Emery, Washington, DC, October 19, 2006.

“Auction Models,” Resource Procurement in Restructured Markets, Edison Electric Institute, Seattle, WA, September 2004.

“Auctions and POLR Procurement,” Beyond 2006: Making Competition Work, The Institute for Regulatory Policy Studies, Illinois State University, Springfield, IL, May 2004.

May 2011

NorthBridge Study: Calculated Premium for Various Utilities

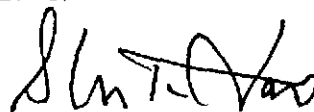


Source:

Direct testimony of Scott G. Fisher filed before the Pennsylvania Public Utility Commission, in the Petition of PECO Energy Company for Approval of its Default Service Program and Rate Mitigation Plan, September 10, 2008, Docket No. P-2008-2062739.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing Columbus Southern Power Company's and Ohio Power Company's Supplemental Direct Testimony of Dr. Chantale LaCasse has been served upon the below-named counsel via First Class mail, postage prepaid, this 6th day of July, 2011.



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