

FILE

36

EXHIBIT NO. _____

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of)
Columbus Southern Power Company for)
Approval of an Electric Security Plan; an) Case No. 08-917-EL-SSO
Amendment to its Corporate Separation)
Plan; and the Sale or Transfer of Certain)
Generating Assets.)

In the Matter of the Application of)
Ohio Power Company for Approval of an) Case No. 08-918-EL-SSO
Electric Security Plan; and an Amendment)
to its Corporate Separation Plan.)

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

PUCO

RECEIVED-DOCKETING DIV
2011 JUN -6 PM 5:13

Filed June 6, 2011

This is to certify that the images appearing are an
accurate and complete reproduction of a case file
document delivered in the regular course of business
Technician SM Date Processed JUN 07 2011

**INDEX TO DIRECT TESTIMONY OF
CHANTALE LACASSE**

Page No.

1.	Personal Data	1
2.	Business Experience	1
3.	Purpose of Testimony	3
4	SSO Providers Incur Costs Associated with Shopping-Related Risk.....	5
5.	The Companies' Method to Estimate the Cost of Shopping-Related Risk is Reasonable	12
6.	Other Methods to Estimate the Cost of Shopping-Related Risk.....	18
7.	Conclusion	20

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO
DIRECT TESTIMONY OF
DR. CHANTALE LACASSE
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,
4 Washington, 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

9 **BUSINESS EXPERIENCE**

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

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

17 Before joining NERA in 2001, I held various full-time academic positions in
18 Canada where I taught economics to graduate and undergraduate students, and

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

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

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

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

8 A. Yes. I have testified or submitted testimony before regulatory commissions in the
9 states of Illinois, New Jersey, Pennsylvania, Texas, and before the Federal Energy
10 Regulatory Commission.

11
12 **PURPOSE OF TESTIMONY**

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

15 A. The purposes of my testimony are:

- 16 • To explain the nature of the shopping-related risk faced by any SSO provider,
17 whether an EDU or a winning supplier at an SSO auction;
- 18 • To discuss methods by which the cost associated with this shopping-related risk
19 may be quantified;
- 20 • To explain that the valuation of an option is an appropriate method to measure the
21 cost associated with this shopping-related risk; and
- 22 • 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 and am familiar with the 2009 final Order issued by the Public
4 Utilities Commission of Ohio in Case No. 08-917-EL-SSO and in Case No. 08-918-
5 EL-SSO (“ESP Order”), authorizing an increase in the Provider of Last Resort
6 (“POLR”) charges for Columbus Southern Power Company (“CSP”) and Ohio Power
7 Company (“OPCo”), referred to collectively as “the Companies” or “AEP-Ohio”.
8 The Companies are subsidiaries of American Electric Power Company, Inc (“AEP”).
9 I have reviewed and am familiar with the April 19, 2011 decision by the Supreme
10 Court of Ohio in Case No. 2009-2022, reversing and remanding to the Commission
11 POLR charge increase approved in the ESP Order. I have reviewed and am familiar
12 with the May 4, 2011 Entry issued by the Commission in Case No. 08-917-EL-SSO
13 and in Case No. 08-918-EL-SSO. I have reviewed testimony and analyses related to
14 the calculation of the POLR charge in Case No. 08-917-EL-SSO and in Case No. 08-
15 918-EL-SSO (the “09-11 ESP”) filed by the Companies. I have reviewed testimony
16 and analyses related to the calculation of the POLR charge in Case No. 11-346-EL-
17 SSO and in Case No. 11-348-EL-SSO (the “12-14 ESP”) filed by the Companies. I
18 have reviewed the Initial Merit Filing on Remand and have had an opportunity to
19 discuss the POLR option analyses with AEP personnel. I have also reviewed the
20 updated POLR cost quantification that Companies’ witness Thomas is sponsoring in
21 this proceeding.

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

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

SSO PROVIDERS INCUR COSTS ASSOCIATED WITH SHOPPING-RELATED RISK

Q. ARE YOU FAMILIAR WITH THE EDU'S OBLIGATION TO PROVIDE A SSO?

A. Yes. I am familiar with the provisions of Ohio law requiring EDUs such as AEP-Ohio to provide to all consumers, on a comparable and non-discriminatory basis within its certified service territory, a SSO of all competitive retail electric services necessary to maintain essential electric service, including a firm supply of electric generation service. I understand that EDUs can provide their SSO through either an ESP or a Market Rate Offer ("MRO"). Under either option, the EDU provides default generation service for any customer that does not acquire generation service from a competitive retail electric service ("CRES") provider at a price (the "SSO Price") that is substantially fixed.

Q. WHAT IS THE NATURE OF THE SHOPPING-RELATED RISK AND COSTS THAT THE EDU ASSUMES AS A RESULT OF ITS POLR OBLIGATIONS?

A. The EDU must honor the SSO Price regardless of market price fluctuations during the term of the rate plan. The customers' ability to shop imposes a costly risk upon the EDU. If market prices fall sufficiently, CRES providers will be able to beat the SSO price and customers will have an incentive to take service from a CRES provider. An EDU, such as AEP-Ohio, that uses its own generation assets to meet its SSO obligation would find that a portion of the output that it expected to use to serve SSO customers would instead need to be sold at below expected prices leading to a loss in revenue. If instead market prices rise sufficiently, customers that are taking service

1 from a CRES provider will find it advantageous to return to SSO. An EDU would be
2 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.

4 Market price fluctuations lead to customer demand that is variable and
5 uncertain. The obligation to maintain a stable price in the face of demand that
6 fluctuates with market conditions prevents the EDU from optimally managing its
7 generation on a forward basis and imposes costs on the EDU in conditions both of
8 rising and of declining market prices. The EDU takes on a costly risk in conditions
9 both of market prices that rise and of market prices that decline with respect to the
10 SSO price. Another obligation of the EDU is to provide the SSO to any group of
11 customers served by a CRES provider that defaults on its service obligations.
12 Collectively, I will refer to these obligations as the EDU's POLR obligations, which
13 exist under both the ESP and MRO options.

14 Absent its POLR obligations, an EDU that uses its own generation assets
15 would be in a position to manage its generation output optimally on a forward basis.
16 A significant aspect of optimally managing generation output is hedging the financial
17 exposure to the spot market through forward sales. The ESP does not provide a firm
18 hedge because customers may leave and take service from a CRES provider when
19 prices decline. Further, when customers do take service from a CRES provider, the
20 EDU retains the obligation to serve these customers should they return to the SSO,
21 making forward sales outside of the ESP that could be used to hedge the financial
22 exposure to the spot market risky. An electric utility without POLR obligations could
23 use a fully flexible approach in managing its generation. Such an electric utility

1 could, on the basis of current market conditions and its expectation of the future, have
2 a varying portion of its generation output locked in at prevailing market prices. For
3 example, after a period of rising market prices, an EDU that would expect market
4 prices to start declining may choose to lock in a greater proportion of its generation
5 output at prevailing market prices. The EDU in Ohio with POLR obligations cannot
6 avail itself of the full array of strategies for managing its generation.

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

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

1 A. A common method used by EDUs without generation assets to manage the costs and
2 risks associated with POLR obligations is to transfer these risks to procure supply for
3 their SSO customers using a competitive bidding process for full-requirements
4 contracts. Under such contracts, winning bidders agree to bear the various POLR
5 risks including shopping-related risk. A competitive procurement process is used to
6 arrive at a market determination of the costs associated with providing full-
7 requirements service and all related risks. Bidders must quantify the costs of these
8 risks prior to bidding. I expect that the clearing prices for auctions conducted to date
9 in Ohio reflect the bidders' assessment of all risks associated with providing SSO
10 supply including shopping-related risk since winning suppliers are required to meet a
11 percentage of SSO load that fluctuates with shopping. An EDU that uses such a
12 procurement process in effect transfers the POLR risks to the winning bidders.

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

15 A. I expect bidders in SSO auctions to utilize different sophisticated and proprietary
16 strategies to manage POLR risks, including shopping-related risk, which they bear
17 when they accept the obligations of the full-requirements contract. A bidder in an
18 SSO auction can be expected to quantify the cost of POLR risks, including shopping-
19 related risk, on the basis of the strategies that it employs to manage such risks. For
20 example, in an environment with little or no shopping, a bidder may partially hedge
21 the risk of increased shopping by acquiring an instrument that would increase in value
22 if market prices declined (such as a gas or power put option). Conversely, in an
23 environment with significant shopping, a bidder may partially hedge the risk of

1 returning customers by acquiring an instrument that would increase in value if market
2 prices increased (such as a gas or power call option). The costs of such instruments
3 would be part of the quantification of such risks. A bidder that does not hedge a
4 particular risk, such as shopping-related risk, may use a financial model such as
5 Black-Scholes (or Black) or statistical analyses such as Monte Carlo simulations to
6 price residual risk and measure the cost of self-insurance. The competitive aspect of
7 the procurement process means that winning bidders tend to be those that are most
8 efficient at managing POLR risks. The POLR price paid by SSO customers includes
9 the bidders' costs for bearing the POLR risks associated with supplying these
10 customers.

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

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

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

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

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

21 A. Yes. An EDU that uses its own generation assets to meet its SSO obligation also
22 bears shopping-related risk to the same degree as winning bidders in a competitive
23 solicitation for SSO supply. The winning bidder in a competitive solicitation for SSO

1 supply is compensated for bearing shopping-related risk with respect to the portion of
2 POLR load that it serves. An EDU that uses its own generation assets to meet its
3 SSO obligation bears the shopping-related risk for 100% of the SSO load. Such an
4 EDU accepts effectively the same POLR obligations as a winning bidder that wins a
5 full-requirements contract in a competitive solicitation but it does so for 100% of the
6 SSO load.

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

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

THE COMPANIES' METHOD TO ESTIMATE THE COST ASSOCIATED WITH SHOPPING-RELATED RISK IS REASONABLE

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

A. The Companies in their filing in the 09-11 ESP quantified the shopping-related risk by calculating the value of an option using a Black-Scholes model, the ESP price as the strike price, and using the then-current Competitive Benchmark price as the current market price. The Companies proposed a POLR charge equal to their estimate of the cost to the Companies of shopping-related risk.

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

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

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

A. An option valuation measures the expected cost on an *a priori* basis. While the actual, after-the-fact cost may differ from the expected cost, from a ratemaking perspective, the expected cost is the relevant measure. The EDU may choose to hedge a portion of the cost or to absorb the cost of the shopping-related risk. Before

1 the fact, the expected cost is measured and reflected in rates so that customers receive
2 an ESP price that is mostly fixed. After the fact, the cost would vary and reflecting
3 this varying cost in rates would defeat the purpose of an ESP price, which is to
4 provide customers a price that is mostly fixed. Instead of the Companies managing
5 and hedging the shopping-related risk, these activities would be moved into a
6 regulated framework where these costs would need to be reviewed for prudence. The
7 creativity and effectiveness with which the Companies manage these risks could then
8 be restricted. However, the expected cost exists regardless of how the EDU
9 ultimately chooses to manage that risk.

10 **Q. ARE THERE PARAMETERS AND ASSUMPTIONS IN THE VALUATION**
11 **OF AN OPTION THAT MAY NOT BE PRESCISELY MODELED AND THAT**
12 **MAY AFFECT THE ACCURACY OF THE RESULT?**

13 A. Yes. The degree to which the method is precise will depend on many factors. These
14 include the accuracy with which the constraints associated with the option can be
15 modeled and the accuracy of the inputs to the calculation. For example, the
16 customer's service options given the switching restrictions in the Companies' tariff
17 are much more complex than the choices embedded in the valuation of an option for a
18 standard financial product and these constraints must be modeled carefully.

19 The fact that some parameters or assumptions may not be modeled precisely
20 does not mean that the estimates of shopping-related risk using an option valuation
21 method need be biased or that reasonable measurements cannot be made. What it
22 does mean is that all else equal, the customers' ability to shop would be more
23 valuable and more costly to provide than a standard financial or commodity option.

1 This is the case because a standard financial option can be either be exercised once or
2 left to expire. However, for a customer, the option can be exercised multiple times
3 and in both directions, leaving and returning to SSO.

4 **Q. WERE THERE FACTORS ASSOCIATED WITH THE OPTION**
5 **VALUATION USED BY AEP-OHIO IN THE 09-11 ESP THAT WOULD**
6 **TEND EITHER TO OVERSTATE OR TO UNDERSTATE THE POLR**
7 **CHARGE?**

8 A. Yes. The Black-Scholes model used by the Companies includes factors that would
9 tend to overstate the option valuation and the POLR charge as well as other factors
10 that would, to the contrary, tend to understate the option valuation and POLR charge.

11 **Q. IN YOUR VIEW, WHAT FACTORS WOULD TEND TO OVERSTATE THE**
12 **POLR CHARGE?**

13 A. The model did not account for switching restrictions, which would limit the number
14 of times that a customer can switch to and from SSO, and thus reduce the cost of
15 providing the option. The model did not account for the fact that not all customers
16 necessarily switch to a CRES provider the moment that it may be advantageous to do
17 so. There are transaction costs that vary depending on the customer. These
18 transaction costs would imply that, at any given time when prices have fallen
19 compared to the ESP price, some but not all customers may consider switching to a
20 CRES provider. This factor limits the degree to which customers take full advantage
21 of the option and thus limits the cost of providing the option. Finally, the model
22 values an option to switch that is held and exercised at the end of the term. But in
23 fact, the customer's option to switch is continuously renewed, and is more akin to a

1 series of options that can be exercised each month of the ESP term. The cost of
2 providing an option with a shorter maturity is less and the cost of providing a series of
3 options is less as a portion of these options expires as time passes.

4 **Q. IN YOUR VIEW, ARE THERE FACTORS THAT WOULD TEND TO**
5 **UNDERSTATE THE POLR CHARGE?**

6 A. On the other side of the coin, there are a number of factors and assumptions that
7 would tend to understate the cost of the option. One is the use of a single, annual
8 volatility. Customers, with a limited set of restrictions, can switch monthly and as
9 monthly volatilities are greater than annual volatilities, the cost of the monthly option
10 is not fully captured. Another factor that understates the POLR charge is the fact that
11 the model only considers whether prices either rise or fall. The model does not
12 consider more complex scenarios where, for example, market prices may first fall but
13 then rise again afterwards. Consideration of the full dynamics of market prices will
14 tend to increase the cost of providing the option and thus increase the POLR charge.
15 For example, if prices decline and it is economically rational for customers to choose
16 service from a CRES provider, the EDU would still need to consider the possibility
17 that prices may turn around and rise sufficiently subsequent to the decline that
18 customers would want to switch back to SSO. The EDU could leave its supply
19 unhedged and stand ready to serve returning customers. In that case, the EDU is
20 exposed to prices falling down even further, and to a greater shortfall of revenue
21 compared to expectations as the EDU sells its generation output at an even lower
22 price. Alternatively, the EDU could enter into a new sale for the remaining term of
23 the ESP at the lower, then-market price. If prices turn around and rise sufficiently

1 that customers return, the EDU will have to divert a portion of the output of its own
2 generation assets or purchase from the market to meet its SSO obligation at a higher
3 than expected cost.

4 **Q. ARE THERE OTHER FACTORS WHERE THE BLACK-SCHOLES MODEL**
5 **USED BY AEP CLEARLY UNDERSTATES THE POLR CHARGE?**

6 A. Yes, there are two. First, the Black-Scholes model assumes that the option premium
7 is paid at the date at which the option is valued. Under the ESP, the POLR charge is
8 paid over the course of the ESP or on average about 2 years after the valuation date.
9 Given a 3.5% discount rate, this would lead to about a 7% understatement of the
10 POLR charge. Further, the POLR charge was set at only 90% of the calculated cost
11 of the option.

12 **Q. WHAT IS THE SECOND OTHER FACTOR?**

13 A. The second factor is not related to the methodology, but to the data. The Companies
14 used as the strike price in the Black-Scholes model the ESP price projected for the
15 first year of the ESP term. However, that price was expected to rise over the term of
16 the ESP. All else equal, a higher ESP price provides a higher option cost. Thus,
17 using the first year ESP price as the strike price would lead to a lower option value
18 and to a lower POLR charge.

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

22 A. Yes. Two of the three sources of overstatement are fully corrected and quantified in
23 the updated results that the Companies' witness Thomas presents in her remand

1 testimony. These results use the model of the filing for the 12-14 ESP but with inputs
2 from the 09-11 ESP period. The approach is more complex than the application of
3 the Black-Scholes model. The model calculates the cost of the option reflecting that
4 it is actually a series of options and incorporating switching rules. This leaves a
5 single source of overstatement, the possibility that not all customers may avail
6 themselves at once of the option the moment that it is economically advantageous to
7 do so. This factor is difficult to quantify. However, I have reviewed Ohio switching
8 and aggregation data, and I note that a significant portion of customer switching in
9 Ohio appears to be the result of "opt-out" aggregation. With aggregation, large
10 groups of customers do leave SSO all at once. Thus, I would estimate that this last
11 source of potential overstatement is not very significant.

12 **Q. DO THE UPDATED RESULTS PRESENTED BY COMPANIES' WITNESS**
13 **THOMAS TAKE INTO CONSIDERATION THE FACTORS THAT YOU**
14 **TESTIFIED WOULD LEAD TO AN UNDERSTATEMENT OF THE POLR**
15 **CHARGE?**

16 **A.** The updated results correct for the rise of the ESP price over the term of the ESP.
17 Otherwise, the updated results do not correct for other factors that I identified as
18 tending to understate the POLR charge. In my view the most significant of these is
19 the fact that the results do not take the full dynamics of prices into account. While the
20 updated results take into account switching restrictions, they do not measure the
21 expected cost to the Companies of customers potentially leaving and then returning
22 during the term of the ESP. The Companies must stand ready to serve 100% of the
23 SSO load. If a significant portion of those customers leave, the Companies would be

1 holding an unhedged generation portfolio and would be exposed to the financial risk
2 and uncertainties of the spot market not knowing whether customers would return.

3 **Q. PLEASE SUMMARIZE YOUR TESTIMONY ON THIS SUBJECT.**

4 A. The option valuation as a methodology for measuring the cost associated with
5 shopping-related risk is a conceptually valid. In the 09-11 ESP, the Companies used
6 a Black-Scholes model. There were a number of factors that would tend either to
7 understate or to overstate the POLR charge. The updated results corrected the major
8 factors that would tend to overstate the POLR charge but do not by and large correct
9 for factors that would tend to understate the POLR charge. Thus the updated results
10 appear to be conservative estimates of the POLR charge.

11
12 **OTHER METHODS TO ESTIMATE THE COST ASSOCIATED WITH SHOPPING-**
13 **RELATED RISK**

14 **Q. ARE YOU AWARE OF OTHER ANALYSES THAT QUANTIFY SHOPPING-**
15 **RELATED RISK FOR SSO-TYPE SERVICE?**

16 A. I am aware of analyses that quantify risk factors associated with providing supply for
17 customers that take SSO-type service and these risk factors include shopping-related
18 risk. One such study was prepared by The Northbridge Group ("Northbridge") for
19 Philadelphia Electric Company ("PECO"). The study compared the prices from
20 competitive procurement of supply for SSO-type service in various states to a "build-
21 up" of the costs of providing the full-requirements service absent uncertainty or risk.
22 A significant element of that risk is shopping-related risk. Exhibit CL-2 shows the
23 results for the Northbridge study. The estimated percentage allowance for risks over

1 the cost items ranges from 3% to 8%, with only one observation below 4%. The
2 majority of observations are between 5% and 8%. When applied to a Competitive
3 Benchmark in the \$80/MWh range, the resulting premium is between \$4/MWh and
4 \$6.4/MWh.

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

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

14 A. Yes. The Staff of the Illinois Commerce Commission ("ICC Staff") in a report
15 entitled "Post-Auction Public Report of the Staff" analyzed the results of the 2006
16 Illinois full-requirements auction. Using a methodology similar to Northbridge, ICC
17 Staff quantified the premium embedded in the price over and above the visible market
18 price of the components of full-requirements service. The table below provides their
19 results. The ICC staff quantified premiums of 7% to 12% for Commonwealth Edison
20 Company ("ComEd") and 18% to 25% for the Ameren Illinois Utilities ("Ameren").
21 Again, while shopping-related risk is not the only risk quantified by this analysis, the
22 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%

1

2 **Q. HAS NERA PREVIOUSLY USED STATISTICAL ANALYSIS TO ESTIMATE**
3 **SHOPPING-RELATED RISK?**

4 A. Yes. NERA has previously used a statistical analysis to quantify explicitly the cost of
5 shopping-related risk. This study was performed for Allegheny Power and Baltimore
6 Gas and Electric Company and presented to the Maryland Public Service
7 Commission.

8

9 **CONCLUSION**

10 **Q. WOULD THE METHODS USED TO QUANTIFY SHOPPING-RELATED**
11 **RISK ADDRESS THE CONCERNS OF THE SUPREME COURT?**

12 A. I believe that it is clear that there are risks to providing SSO related to shopping that
13 cause a provider to incur costs and that methods to quantify these costs exist that
14 would address and satisfy my understanding as a layperson of the concerns set forth
15 in the Supreme Court's April 19 Decision.

1 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

2 **A. Yes, it does.**

NERA

Economic Consulting

Exhibit CL-1

Chantale LaCasse
Senior Vice President

National Economic Research Associates, Inc.
1255 23rd Street NW
Washington, DC 20037
+1 202 466 3510 Fax +1 202 466 3605
Direct dial: 1 202 466 9218
Chantale.LaCasse@nera.com
www.nera.com

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.



Marsh & McLennan Companies

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

NERA Economic Consulting

2005- 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.

University of Alberta, Department of Economics

1998-2000 Associate Professor

Competition Bureau, Industry Canada

1997-1998 T.D. MacDonald Chair of Industrial Economics

Universitat Autònoma de Barcelona, Departament d'Economia i d'Història Econòmica

1997 Visiting Professor

University of Toronto, Institute for Policy Analysis

1996-1997 Visiting Professor

University of Ottawa, Department of Economics

1998 Associate Professor

1991-1998 Assistant Professor

1990-1991 Lecturer

Brock University, Department of Economics

1989-1990 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 Ponsati 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. 467-493.

"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.

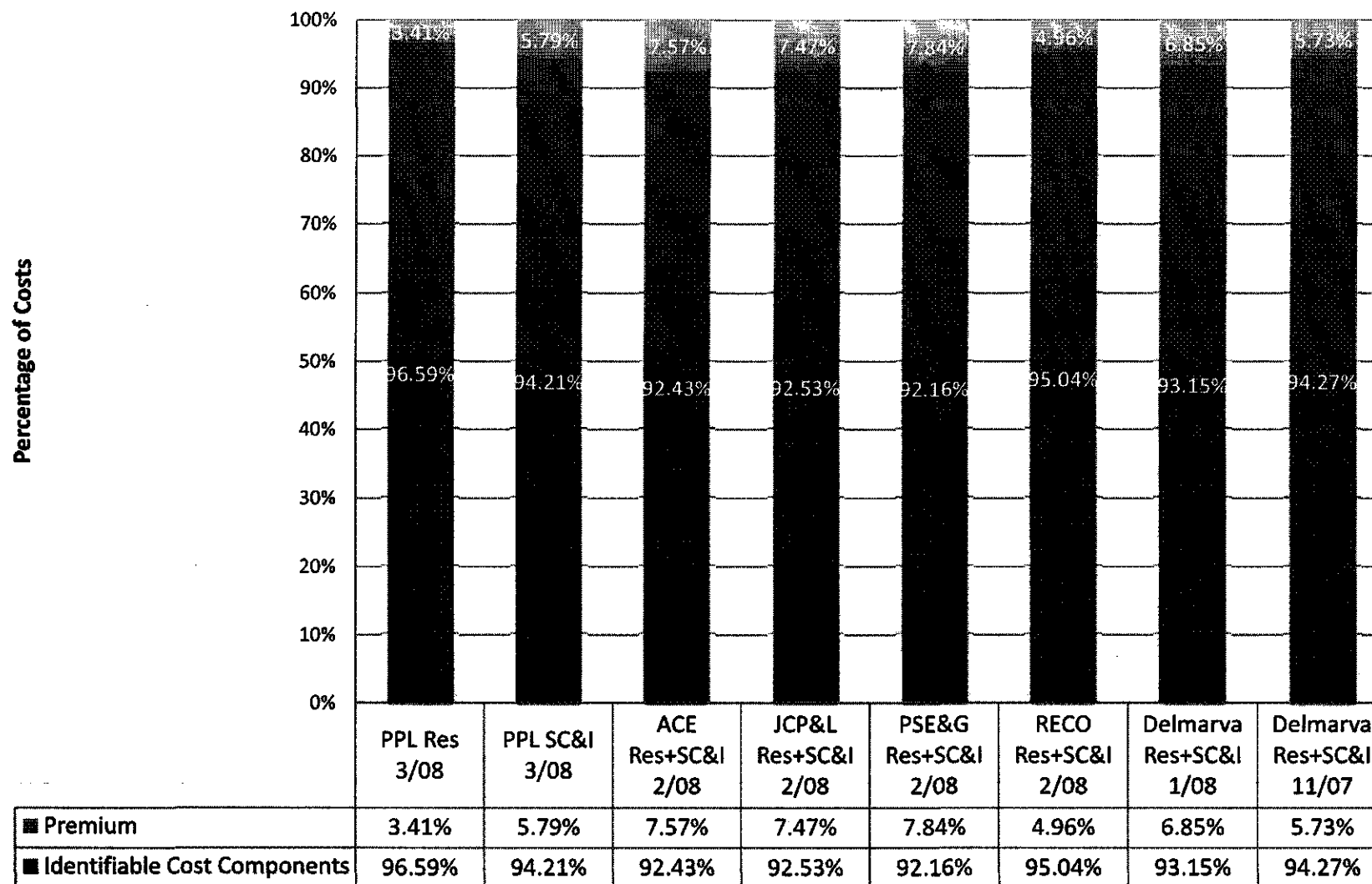
“Challenges of Utility Procurement in a High Cost Environment”, Ninth Annual Energy Conference held by McDermott, Will & Emery, Washington, DC, October 19, 2006.

“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

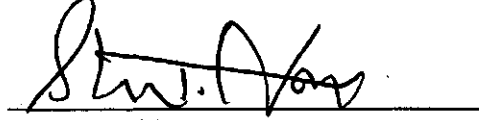


Source:

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

I hereby certify that a copy of Columbus Southern Power Company's and Ohio Power Company's Remand Testimony of Dr. Chantale LaCasse was served by electronic mail upon counsel identified below this 6th day of June, 2011.


Steven T. Nourse

EMAIL

sbaron@jkenn.com
lkollen@jkenn.com
charlieking@snavely-king.com
mkurtz@bkllawfirm.com
dboehm@bkllawfirm.com
grady@occ.state.oh.us
etter@occ.state.oh.us
roberts@occ.state.oh.us
idzkowski@occ.state.oh.us
stnourse@aep.com
dconway@porterwright.com
jbentine@cwslaw.com
myurick@cwslaw.com
mwhite@cwslaw.com
khiggins@energystrat.com
barthroyer@aol.com
gary.a.jeffries@dom.com
nmoser@theOEC.org
trent@theOEC.orgs
henryeckhart@aol.com
nedford@fuse.net
rstanfield@nrdc.org
dsullivan@nrdc.org
ed.hess@puc.state.oh.usc
thomas.lindgren@puc.state.oh.us
werner.margard@puc.state.oh.us
john.jones@puc.state.oh.us
sam@mwncmh.com
lmcaster@mwncmh.com
jclark@mwncmh.com
drinebolt@aol.com
cmooney2@columbus.rr.com
msmalz@oslsa.org
jmaskovyak@oslsa.org
ricks@ohanet.org
tobrien@bricker.com

todonnell@bricker.com
cvince@sonnenschein.com
preed@sonnenschein.com
ehand@sonnenschein.com
tommy.temple@ormet.com
steven.huhman@morganstanley.com
dmancino@mwe.com
glawrence@mwe.com
gwung@mwe.com
stephen.chriss@wal-mart.com
lgearhardt@ofbf.org
cmiller@szd.com
gdunn@szd.com
aporter@szd.com
erii@sonnenschein.com
agamarra@wrassoc.com
kschmidt@ohiomfg.com
sbloomfield@bricker.com
cynthia.a.fonner@constellation.com
david.fein@constellation.com
mhpetricoff@vssp.com
smhoward@vssp.com
bsingh@integrysenergy.com
cgoodman@energymarketers.com
lbell33@aol.com