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**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 Amendment to its Corporate Separation Plan; and the Sale or Transfer of Certain Generating Assets.	)	**Case No. 08-917-EL-SSO**
In the Matter of the Application of Ohio Power Company for Approval of its Electric Security Plan; and an Amendment to its Corporate Separation Plan.	)	**Case No. 08-918-EL-SSO**

COLUMBUS SOUTHERN POWER COMPANY'S AND OHIO POWER COMPANY'S INITIAL POST-HEARING BRIEF ON REMAND

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INTRODUCTION

The proper scope of this remand proceeding is narrow. The Ohio Supreme Court asked the Commission to answer two discrete questions. First, is there alternative statutory authority, other than the "without limitations" clause in Ohio Rev. Code § 42928.143(B)(2), that supports the Commission's decision approving the recovery of environmental carrying costs in the Commission's March 18, 2009 Order approving AEP-Ohio's current electric security plan ("ESP")? In re Application of Columbus S. Power Co., 128 Ohio St. 3d 512, 2011-Ohio-1788, (the "Remand Decision"), ¶ 35.[1] And second, may the provider-of-last-resort ("POLR") charges the approved by the Commission in its March 18, 2009 Order as cost-based charges or on a reasonable and lawful non-cost-based grounds? Remand Decision, ¶30.

As to the first question, it is clear that the Commission's prior approval of the recovery of environmental investment carrying costs was proper under Ohio Rev. Code §4828.143(B)(2) because division (B)(2)(d) of the statute expressly authorizes the recovery of "carrying costs" in an ESP. Alternatively, the recovery of the environmental investment carrying costs in AEP Ohio's ESP was authorized under division (B)(2)(e) of the statute, which expressly authorizes the automatic increases in any component of the standard service offer ("SSO"), or division (B)(2)(b), which expressly authorizes the recovery of environmental expenditures for electric generating facilities, if the cost is incurred on or after January 1, 2009. While the capital environmental expenditures related to the carrying costs were made prior to January 1, 2009, the carrying costs fall within the

[1] The Commission's March 18, 2009 Order in this case is referred throughout as the "ESP Order." The ESP Order approved an ESP for both Columbus Southern Power and the Ohio Power Company. Columbus Southern Power and Ohio Power Company are referred to collectively as either "the Companies" or "AEP Ohio."

ESP period. Thus, the Commission may and should re-affirm its prior approval of the recovery environmental investment carrying costs on these alternative grounds.

As to the second question, AEP Ohio has now supplemented the prior record with additional testimony, including expert testimony, to clarify that the POLR charges approved by the Commission are indeed cost-based charges. The testimony confirms that the option model relied in the prior proceedings in this case is a conceptually valid methodology for estimating AEP Ohio's costs for honoring its POLR obligations during the ESP period. The Companies' expert witnesses, Dr. LaCasse, Dr. Makhija and Ms. Thomas, explain more fully how it is that the cost to AEP Ohio for providing POLR service is indeed equal to the value of the shopping optionality to the customer. The testimony specifically addresses the misconception in the Remand Decision, and in some Intervenor testimony, that the option model values the shopping optionality in terms of the subjective value to the customer, e.g. "the amount a customer would be willing to pay for the right to shop," Remand Decision, ¶29. The record demonstrates that the costs to the Companies of providing the POLR optionality, in the context of the pricing commitments the Companies made in their ESP, have been determined by forward-looking, market-based measurements that quantify those costs. The evidence shows that the value to customers of the optionality that the Companies provide to them is properly quantified by reference to the same market-based measurements. The record on remand also includes a refinement of the prior model –the "constrained option model" – that updates and improves the analysis by incorporating the switching constraints or shopping rules in the AEP Ohio tariffs and substituting the first year SSO rates approved by the Commission for the rates initially proposed by the Companies. The now augmented record ably and clearly demonstrates that the POLR charges previously approved by the Commission in this case are reasonable and lawful cost-based POLR charges that should be re-affirmed by the Commission.

SUMMARY OF ARGUMENT

I. The scope of this remand proceeding is defined by the Ohio Supreme Court's Remand Decision and is narrow. The Commission has been directed to revisit two discrete issues. The Court asked Commission to consider whether there is alternative legal authority for the Commission's prior decision to approve recovery of environmental investment carrying costs in the current AEP Ohio ESP. The Court also asked the Commission to revisit the issue of whether there is a cost-based justification, or some other non-cost-based justification, for the Commission's prior decision to authorize the AEP Ohio to include a POLR rider in its SSO. In essence, the Court merely asked the Commission to better clarify and support its ESP Order, it did not authorize the Commission to re-open or second-guess any other finding or conclusion in the ESP Order. To the contrary, the Court rejected all other challenges to the ESP Order and otherwise affirmed the ESP Order in its entirety.

II. In its Remand Decision, the Court asked the Commission to determine whether any of the listed categories of Ohio Rev. Code § 4928.143 (B)(2) authorize recovery of environmental carrying charges. There are three separate provision in the statute that provide such authority. Division (B)(2)(d) of the statute expressly authorizes the Commission to establish "charges relating to . . . carrying costs. . . ." The ESP Order repeatedly referred to these environmental costs as "carrying costs." Divisions (B)(2)(e) or (B)(2)(c) of the statute also support the Commission's prior decision.

III. A. The record as supplemented by the record on remand fully supports the Commission's prior decision to authorize the recovery of POLR charges as part of the current AEP Ohio ESP. Dr. LaCasse, Dr. Makhija and Ms. Thomas each explained that there is a definite and significant cost to the Companies associated with providing customers with the optionality to switch away from and also to return to the regulated, stable,, SSO generation rates that the Companies have committed to make available through their ESPs. (LaCasse, Cos. Remand Ex. 3, at 5-7; Makhija, Cos. Remand Ex. 1, at 3-5; and Thomas, Cos. Remand Ex. 4, at 3.) These witnesses explained why and how the costs to the EDU from serving as the POLR while guaranteeing the regulated and stable, SSO rate can be assessed by reference to the value of the shopping options given to the customers. Dr. LaCasse also explained that the methods used by bidders in SSO auctions to quantify shopping-related risk would be applicable to EDUs that, like the Companies, use their own generation assets to meet their POLR obligations. Dr. LaCasse observed that the obligations and risks are common to both situations. (Cos. Remand Ex. 3, at 11.)

B. The lawfulness of non-bypassable POLR charges to compensate EDU's for their costs of being the POLR is well established. The Ohio Supreme Court has confirmed the appropriateness of providing for the recovery of POLR costs explicitly by EDUs or implicitly through the competitive bid prices of SSO suppliers. Constellation New Energy, Inc. v. Pub. Util. Comm., (2004), 104 Ohio St. ed 530; Consumers Counsel v. Pub. Util. Comm., (2006) 109 Ohio St.3d 328. Ohio Rev. Code § 4928.143(B)(2)(d) specifically authorizes an ESP to include "terms, conditions, or charges relating to . . . bypassability, standby service . . . default service . . . as would have the effect of stabilizing or providing certainty regarding retail electric services." It is a fact that the Commission has approved the recovery of POLR charges, explicitly or implicitly, for all other Ohio EDUs.

C. The ESP order expressly recognized that the AEP Ohio POLR charge would cover two distinct cost-based risks: the risk of customers leaving to take service from a competitive provider -the risk of migration, as well as the risk of customers returning to the SSO after switching. This key finding of the Commission was not an issue on appeal and cannot be revisited now. Moreover, the record establishes that the Intervenors' attempts to re-define the migration risk to the EDU as nothing more than the risk of customer mobility that all providers in a competitive market share have no merit. Companies witnesses Thomas and Dr. LaCasse testified to the very real risks of migration to the EDUs burdened with the POLR obligation and how that risk is unique to the EDUs. Intervenor witnesses could not deny the real distinctions between an EDU burdened with the POLR obligation and regulated SSO prices and a competitive retail electric service provider ("CRES").

D. The record before the Commission establishes that the business and financial aspects of the POLR risk were real at the time of the ESP Order and have since been confirmed by actual shopping. The testimony showed that the value of the option exists at the beginning of the ESP term, independent of the actual outcomes that materialize in the future. It exists because customers can switch; it is not based on whether they exercise their right to switch. Nevertheless shopping levels have increased substantially during the term of the ESP.

E. The record on remand further confirms the validity of the option model as an appropriate methodology for determining the Companies POLR costs. The record now contains extensive expert testimony that the option modeling that the Companies have used appropriately determines the costs to the Companies of providing the POLR optionality, in the context of the pricing commitments they made in their ESP, by forward-looking, market-based, measurements that quantify those costs. The expert witnesses have succinctly explained why it is true that the cost to the utility that provides the POLR optionality is no more or less than the value of the options received by the customers. The record on remand now includes a refinement of the prior model –the "constrained option model" – that updates and improves the analysis by incorporating the switching constraints or shopping rules in the AEP Ohio tariffs and substituting the first year SSO rates approved by the Commission for the rates initially proposed by the Companies. It also includes an empirical Monte Carlo analysis, suggested by Intervenor witness Lesser but sponsored by Dr. LaCasse, that further supports the reasonableness of the results obtained from AEP Ohio's option valuation methodology.

IV. Intervenors' attempts to flow through adjustments to deferrals of expenses incurred prior to June 2011 is outside the scope of proceeding and not properly considered by the Commission. In addition, the flow-through adjustments Intervenors advocate would amount to unlawful retroactive ratemaking. Altering the calculation of incurred and deferred FAC costs during the ESP after-the-fact so as to deny recovery of revenue that the Commission previously authorized to be collected during the period 2012 through 2018 is the epitome of retroactive ratemaking and would violate Ohio Rev. Code § 4928.144. The fact that the remedy advocated by IEU and OCC is to prospectively adjust deferred costs that have not yet been charged to the customers does not does not alter the unlawful nature of the suggested remedy in any way.

ARGUMENT

I. THE SCOPE OF THE SUPREME COURT'S REMAND DECISION IS NARROW AND DOES NOT DICTATE THE OUTCOME OF THIS PROCEEDING OR REQUIRE THE COMMISSION TO DEPART FROM THE *STATUS QUO*.

On April 19, 2011, the Supreme Court of Ohio issued its decision in Case No. 2009-2022 regarding the 13 alleged errors raised by the Ohio Consumers' Counsel (OCC) and the Industrial Energy Users-Ohio (IEU) in connection with the Commission's 2009 decision in this case. Remand Decision. The decision reversed the Commission's ESP order on only three issues and remanded two of those issues – the POLR charge and the environmental carrying charge – to the Commission for further consideration. Remand Decision. The Court held that remand was necessary with respect to the POLR charge because the existing record was not sufficient to explain the Commission's conclusion that the approved POLR charges were cost-based. It held remand was necessary with respect to the environmental carrying charge because it did not agree with the legal basis the Commission relied upon in approving the charge. The Court did not rule on the application of its decisions on rates, in fact, the Court left open the option for the Commission to provide further basis and authority for the decisions the Commission already made in a remand proceeding.

A. The issue on remand with respect to the environmental carrying costs is a narrow legal issue.

In the ESP Order at 28, the Commission permitted AEP Ohio to adjust its base generation rate to include "incremental capital carrying costs that will be incurred after January 1, 2009, on past environmental investments (2001-2008) that are not presently reflected in the Companies' existing rates, as contemplated in AEP Ohio's RSP Case." It was clear that the Commission granted recovery of the 2001-2008 environmental investment carrying costs based on the "without limitation" language in division (B)(2) of the ESP statute. *See* July 23, 2009 Entry on Rehearing at 12 ("The carrying costs fall within the ESP period and, therefore, may be included in the ESP pursuant to the broad language of Section 4928.143(B)(2), Revised Code, permitting recovery for unenumerated expenses.") On appeal, the Court interpreted the ESP statute as follows:

> By its terms, R.C. 4928.143(B)(2) allows plans to include only "any of the following" provisions. It does not allow plans to include "any provision." So if a given provision does not fit within one of the categories listed "following" (B)(2), it is not authorized by statute.

(Remand Decision at ¶ 31.) Notably, the Court's holding did not invalidate AEP Ohio's environmental carrying costs embedded within the base generation rate.

The Court carefully avoided a conclusion that the environmental carrying costs are not appropriately recovered under the ESP statute.

> For the foregoing reasons, we reverse the commission's legal determination that R.C. 4928.143(B)(2) permits ESPs to include unlisted items. On remand, the commission may determine whether any of the listed categories of (B)(2) authorize recovery of environmental carrying charges.

(Remand Decision at ¶ 35.) Thus, the Court's holding clearly places the next determination in the Commission's hands and does not dictate the outcome of that analysis. On remand, the Commission simply needs to determine which of the other options from provided by the ESP statute supports recovery of environmental carrying costs. As discussed in detail below, here are multiple options, including R.C. 4928.143(B)(2)(d), (e), and (b).

B. The Court merely seeks clarification of the basis for the POLR charges.

Regarding the POLR charge, the Court noted the following about the Commission's basis for the POLR charge:

> [The Commission] described the charge as cost-based. "[T]he POLR rider will be based on the cost to the Companies to be the POLR and carry the risks associated

> therewith * * *." (Emphasis added.) Likewise, it stated that it was allowing recovery of "estimated POLR costs." (Emphasis added.) Again on rehearing, the commission stated that it had "determined that the Companies should be compensated for the cost of carrying the risk associated with being the POLR provider." (Emphasis added.) This characterization of the POLR charge as cost-based lacks any record support; therefore, we reverse the portion of the order approving the POLR charge.

(Remand Decision at ¶ 24.) Significantly, because the reversal and remand was based solely on the sufficiency of the existing record, the Court emphasized that the remand proceeding need not change the result ordered in the ESP order:

> To be clear, we express no opinion on whether a formula-based POLR charge is per se unreasonable or unlawful, and the commission may consider on remand whether a non-cost-based POLR charge is reasonable and lawful. Alternatively, the commission may consider whether it is appropriate to allow AEP to present evidence of its actual POLR costs. However the commission chooses to proceed, it should explain its rationale, respond to contrary positions, and support its decision with appropriate evidence.

(Remand Decision at ¶ 30.) Thus, any assertion by intervenors that the POLR charge is "unlawful" under the Court's decision squarely conflicts with ¶ 30 of the Remand Decision. Indeed, the Court went out of its way to make it very clear that the reversal and remand to the Commission regarding the POLR charge does not need to result in modifying the POLR charge, nor does the remand suggest that the Commission's use of the option model to project POLR costs is legally objectionable. The Court's decision does not preclude continuing reliance on the option model approach or the related testimony and evidence supporting the existing, previously approved, POLR charges. On remand, the Commission may reinforce its decision to authorize the POLR charge, by clarifying its reasoning, better explaining its basis for the charge, and reviewing the evidentiary record support for that result.

In its ESP Order, the Commission adopted a nonbypassable POLR charge reflecting 90 percent of the *estimated POLR costs* presented by the Companies. The Commission understood that the POLR charge was to compensate the Companies for the estimated POLR costs , but that these expected costs would not necessarily equal the Companies' realized costs during the term of the ESP, as realized costs depend on how the Companies bear the POLR risks. The Commission's Entry on Rehearing in the ESP Cases stated that "the Commission carefully considered all of the arguments, testimony, and evidence in the proceeding and determined that the Companies should be compensated for the cost of carrying the risk associated with being the POLR provider, including the migration risk." (ESP Order, Entry on Rehearing at 26.) On remand, the facts can be clarified and explained regarding the ESP Order's reference to AEP Ohio's costs. While the Court did not understand the reference to cost in the ESP Order, this remand proceeding presents the Commission with a second opportunity to explain its decision and clarify it for the Court.

The ESP Order got it right and never contemplated that AEP Ohio would have to incur actual out-of-pocket costs or reconcile the revenue requirement awarded. Referring to modeled costs as "costs" does not change the nature or appropriateness of the extensive record and analysis supporting the approved POLR charge; nor does it change the Commission's full understanding of what it approved in the ESP Order. In any case, the remand should not be used to strip away charges that were approved by the Commission after fully litigating the case. The POLR charges were clearly a key component to the ESP package deal approved by the Commission, and the Court merely asked the Commission to better document the basis for the charges.

II. REGARDING THE NON-FUEL GENERATION RATE INCREASE REFLECTING CARRYING COSTS ON PRE-ESP ENVIRONMENTAL INVESTMENT, THE NARROW LEGAL QUESTION ON REMAND CAN BE EASILY ADDRESSED BY SUBSTANTIATING THE RATE INCREASE BASED ON ONE OF MULTIPLE PROVISIONS WITHIN THE ESP STATUTE.

A. Background regarding recovery of 2001-2008 environmental carrying costs in AEP Ohio's base generation rate as part of ESP package.

As discussed above, the Commission merely needs to determine on remand the appropriate basis within the ESP statute to support recovery of the current carrying costs for AEP Ohio's 2001-2008 environmental investment. The Companies have made, and continue to make, significant capital investments in environmental facilities. They requested to include, in their ESPs, increases to their base (non-FAC) generation rates specifically for recovery of carrying costs for the incremental amounts of these investments made during the 2001-2008 period that were not currently reflected in their SSO rates. Companies witness Nelson supported the Companies' proposal. (Cos. Remand Ex. 7, pp. 15-20 and Exhibits PJN-8 through PJN-12). The annual capital carrying costs for the incremental 2001-2008 environmental investments not currently reflected in rates amounted to $84 million for OPCo and $26 million for CSP. Exhibit PJN-8 provided the calculation of these amounts.

Mr. Nelson testified that the annual carrying cost on incremental capital investments made through 2008 is based on the 2001-2008 net cumulative environmental capital expenditures for each Company multiplied by its carrying cost rate. (*Id.*, at 16-17). The Staff recommended that the Companies be allowed recovery of these capital carrying costs on 2001-2008 environmental investments that were not presently reflected in their existing rates. (Staff Ex. 6, p. 5). Staff witness Soliman stated that "[t]he companies' compliance with the current and future environmental requirements is in the public interest, and they should continue investing in environmental equipment." (Id.).

The Commission approved the Companies' proposal for recovery of the carrying costs on the incremental capital expenditures in the Opinion and Order and, in its July 23rd Entry on Rehearing, at 12, again confirmed that the carrying costs fall within the ESP period and, therefore, may be included in the ESP. (ESP Order, at 28; Entry on Rehearing, at 12). As such, the Commission approved provisions in AEP Ohio's ESP for recovery of the capital carrying costs of investments in environmental control facilities made during 2001-2008 but not already reflected in their rates through adjustments made during their prior RSP proceedings. Although the incremental capital expenditures involved in that provision of the ESPs were made in 2001-2008, the carrying costs that the provision enables the Companies to recover were, or are being, incurred during 2009-2011. There is no dispute regarding the approved environmental charge that: (1) the investments were required by existing environmental regulations, (2) they were incremental investments not previously reflected in rates, and (3) the investments were prudently-incurred costs that were actually made by AEP Ohio. These facts remain intact on remand from the Court. Nothing in the Court's Decision undermines the legitimacy or record support for these prudent environmental investments, nor does the Decision take issue with the Commission's finding that the investments were not already reflected in rates.

During the remand phase of this proceeding, Companies witness Nelson again testified in support of recovery of environmental carrying costs, appearing at the hearing to answer any additional questions that may have arisen about this matter in light of the Supreme Court's remand decision. (Cos. Remand Ex. 2.)

In short, the factual findings of the original ESP Order remain valid. In its remand order, the Commission need only apply the facts already determined to one of the available enumerated provisions.

B. There are multiple bases in the ESP statute to support continued recovery of 2001-2008 environmental carrying costs.

Regarding the narrow legal issue on remand as to whether an alternative legal basis exists to support the environmental investment carrying cost recovery, there are multiple bases in the ESP statute to support such recovery including:

> R.C. 4928.143 (B)(2)(d) authorizes the Commission to establish "terms, conditions, or charges relating to ... carrying costs ...."
>
> R.C. 4928.143(B)(2)(e) authorizes automatic increases in any component of the standard service price
>
> R.C. 4928.143(B)(2)(b) authorizes recovery of an environmental expenditure for any generating facility of the electric distribution utility.

Each of these three legal bases will be briefly addressed below.

1. Division (B)(2)(d) of the ESP statute.

First, division (B)(2)(d) authorizes the Commission to establish "terms, conditions, or charges relating to ... carrying costs ...." That provision provides the Commission with a statutory basis to support the continued recovery of the 2001-2008 incremental environmental investment carrying costs. There is no more reasonable and appropriate basis for a generation charge than carrying charges on generation-related capital investments. Because division (B)(2)(d) expressly permits recovery of carrying costs, this provision supports continued recovery of environmental carrying costs. And, per the statute, the effect of perpetuating the useful lives of existing generation assets through prudent, economic environmental investments would have the effect of stabilizing rates -- especially when compared to the cost of investing in new generation.

Though the term "carrying charges" has been used in connection with the recovery of presently-incurred costs associated with the 2001-2008 investment, this concept is equivalent to "carrying costs" in this context. Under the ESP decision, the carrying charge associated with environmental investment was reflected in AEP Ohio's base generation rates in order to recover the *costs* associated with the 2001-2008 environmental investment. The Commission's ESP order repeatedly referred to these environmental costs as "carrying costs." See e.g., July 23, 2009 Entry on Rehearing at 12 ("The Commission interprets Section 4928.143(B)(2), Revised Code, like the Companies, to permit AEP Ohio to include as part of its ESP the *carrying costs* on environmental investments that are incurred January 1, 2009, through December 31, 2011, the ESP period. The *carrying costs* on the environmental investments ....") Moreover, division (B)(2)(d) explicitly equates such terminology by permitting the Commission to establish "terms, conditions, or *charges* relating to ... carrying *costs* ..." Thus, there is no distinction between "carrying charges" and "carrying costs" that would infringe on the Commission's ability to establish a charge for recovery of environmental carrying costs under division (B)(2)(d) of the ESP statute.

2. Division (B)(2)(e) of the ESP statute.

A second equally applicable legal basis to support the recovery of environmental carrying costs is found in division (B)(2)(e) of the ESP statute. That provision authorizes automatic increases in any component of the standard service price. Allowing automatic rate increases for environmental investment carrying costs is not a new concept. Under AEP Ohio's prior rate plan (Rate Stabilization Plan), automatic rate increases were permitted based on demonstrating that environmental investments were actually made. AEP Ohio notes in this regard that the Commission found, on page 28 of the ESP Order, that its initial decision regarding the recovery of continuing carrying costs on environmental investments "is consistent with our decision in the 07-63 Case and the RSP 4 Percent Cases." Division (B)(2)(e)'s allowance for automatic rate increases applies here and it would be appropriate to invoke that provision as an additional legal basis for supporting the ESP order's decision to permit a non-fuel generation rate increase to recover carrying costs for environmental investments. Due to the compulsory nature of following environmental regulations when operating a generating station, it is highly appropriate to allow automatic pass-through of such prudently-incurred costs.

3. Division (B)(2)(b) of the ESP statute.

Another legal basis to support the recovery of environmental carrying costs is division (B)(2)(b) of the ESP statute. Division (B)(2)(b), in pertinent part, allows inclusion in an ESP of a provision that provides cost recovery "for an environmental expenditure for an electric generating facility of the [EDU], provided the cost is incurred or the expenditure occurs on or after January 1, 2009". The non-fuel generation rate increase permitted recovery of the carrying costs for the capital environmental expenditures, not the capital expenditures themselves. The current record confirms that while the capital expenditures were made prior to January 1, 2009, "the carrying cost itself is the carrying cost [the Companies are] going to incur in 2009" and thereafter. (Tr. XIV, pp. 93, 114). As the Commission correctly found in its Entry on Rehearing, at 12, "[t]he carrying costs on the environmental investments fall within the ESP period" and properly concluded that the carrying costs should be included in the ESP. Since division (B)(2)(b) allows a reasonable surcharge to recoup an environmental investment, certainly the carrying costs reflected in the ESP Order's non-fuel generation rate increase would qualify. While this provision supports a nonbypassable charge for recovery of environmental investment, there is certainly no reason why it could not also be used to support a bypassable charge where the EDU consents (particularly given that division (B)(2)(d) separately allows the Commission to address bypassability of charges).

In sum, the Court's directive to find a basis in one of the enumerated provisions of the statute to support the environmental investment carrying cost charges can be fulfilled through any of the three provisions identified above. Thus, the Court's remand criterion for supporting the previously approved carrying charges is met, and the Commission's decision on this point may be retained.

III. THE RECORD BEFORE THE COMMISSION FULLY SUPPORTS THE COMPANIES' EXISTING POLR CHARGES AND SQUARELY RESPONDS TO THE COURT'S REQUEST FOR CLARIFICATION OF THE COST BASIS FOR THE POLR CHARGES.

In its Remand Decision, the Court reversed the provisions of the Commission's March 18, 2009 order approving the recovery of POLR charges as part of the Companies' ESP. The Court's reason for doing so was narrow. The Court held only that there was insufficient record support for the Commission's conclusion that the approved POLR charges were cost-based. Significantly, the Court did not hold that the approval of POLR charges – or even the approval of POLR charges at the existing level – would be unlawful. It did not hold that the Companies do not incur risks associated with their unique POLR status for which compensation is necessary and appropriate. It did not hold that using the Black-Scholes model, or a similar model, to quantify the costs associated with the POLR risks is unreasonable or unlawful. Quite to the contrary, it held only that the Commission should "revisit this issue" of the POLR charge and, "should explain its rationale, respond to contrary positions, and support its decision with appropriate evidence." Id. Remand Decision, at ¶ 30.

While the Companies believe the prior record fully supported the POLR charges, it is apparent that the Court concluded it needed a better explanation of how the existing POLR charges are cost-based and why those costs are properly determined through an option valuation methodology. The record now before the Commission addresses the Court's desire for greater clarity and evidentiary support and gives the Commission a more than adequate basis upon which to rest its conclusion to again approve the existing POLR charges.

A. The record provides ample evidentiary support for the conclusion that an option valuation appropriately measures POLR Costs.

It is clear from its opinion that the Court took issue with the Commission's POLR findings only because the Court could not independently glean from the prior record how there could be a relationship between the costs the Companies incur as a result of their POLR obligation and the value customers derive from the shopping optionality. The Court simply did not appreciate that the Black Scholes model, by calculating the value of the shopping-related optionality, could at the same time quantify the cost of the shopping-related risk to the Companies. The Court misunderstood how the model values the optionality. Its misunderstanding, which is clear from the Court's penultimate conclusion – "we fail to see how the amount a customer would be willing to pay for the right to shop necessarily establishes AEP's cost to bear the attendant risks," Remand Decision at ¶ 27, shows that the initial ESP Order did not do an adequate job of explaining that the use of the model the Black Scholes or Black model does not seek to quantify the subjective value of the optionality from the customers' perspective -- what a customer would be willing to pay; rather, it objectively values the option from the market perspective. The value of the option as determined by the model is driven by the differences between the ESP price and the expected market prices during the term of the ESP. This objective, quantifiable difference in price is both the expected cost *a* priori to the Companies and the value to the customer of the option to shop.

1. The record establishes that the Companies do in fact incur substantial costs as a result of the POLR risks they are required to bear.

Companies witnesses Dr. LaCasse, Dr. Makhija and Thomas each explained that there is a definite and significant cost to the Companies associated with providing customers with the optionality to switch away from and also to return to the regulated, essentially fixed, SSO generation rates that the Companies have committed to make available through their ESPs. (LaCasse, Cos. Remand Ex. 3, at 5-7; Makhija, Cos. Remand Ex. 1, at 3-5; and Thomas, Cos. Remand Ex. 4, at 3.) That optionality allows customers to take generation service from the EDU at regulated SSO rates unless and until market prices decline below the SSO rate and it becomes advantageous for customers to switch to a competitive retail electric service (CRES) provider. The optionality also permits the customers who have switched to a CRES provider to return to the EDU's regulated SSO rate in the event market prices subsequently rise above the SSO price or the CRES provider defaults.

Dr. LaCasse described the costly nature of the shopping-related risks that EDUs, such as the Companies bear as a result of their POLR obligations:

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

(Cos. Remand Ex. 3, 7.)

Dr. Makhija further explained that unless the EDU recovers the costs of its POLR obligations, there will be a diminution of its equity value. Dr. Makhija illustrated this effect through the comparative example of Utility A, which has the same POLR obligation as the Companies have under their ESPs and Utility B, which does not have that obligation:

> The earnings of Utility A will have greater variability because its customers are likely to depart when the market price falls below its SSO price, and to return when the market price goes above the SSO price. This makes Utility A riskier and its equity requires a higher required rate of return compared to Utility B. That is, shareholders for Utility A have a higher risk premium (and, hence, a higher cost of equity capital) as a result of the optionality it is required to provide to its customers. Cash flows for Utility A should be discounted at the higher cost of capital, which amounts to a diminution of shareholder equity for Utility A.

(Cos. Remand Ex. 1, at 5.)

Dr. LaCasse also explained that the methods used by bidders in SSO auctions to quantify shopping-related risk would be applicable to EDUs that, like the Companies, use their own generation assets to meet their POLR obligations. Dr. LaCasse observed that the obligations and risks are common to both situations. (Cos. Remand Ex. 3, at 11.) Dr. LaCasse provided examples of analyses of SSO auction results that quantified the risks associated with providing wholesale supplies for customers that take SSO-type service, and these risk factors include shopping-related risk. One such study was prepared by the Northbridge Group (Northbridge) for Philadelphia Electric Company (PECO). The Northridge study identified risk premiums that bidders included in their bids which were in addition to the costs of providing full-requirements service absent risk. The majority of the premiums were between 5% and 8% of the risk-free costs. A significant element of that total risk was shopping-related risk. (Id., at 18-19.) Dr. LaCasse acknowledged that the premiums reported by Northbridge included more than just shopping-related risk (*Id.* at 19), but she also emphasized that shopping risk was the first risk identified, among all risks, by Northridge, which indicates that the shopping risk is one of the important risks included in the calculation (Tr. v. II, p. 170.)

A second study that Dr. LaCasse cited was a report by the Staff of the Illinois Commerce Commission (ICC) that analyzed the results of the 2006 Illinois full-requirement auction. The ICC Staff quantified the premium embedded in the price over and above the visible market price of the components of full requirements service. The ICC Staff quantified premiums of 7% to 12% for Commonwealth Edison Company and 18% to 25% for the Ameren Illinois Utilities. Dr. LaCasse noted, again, that while shopping-related risk was not the only risk quantified by the ICC Staff's analysis, the premiums are informative. (Cos. Remand Ex. 3, at 19.)

The Northbridge and ICC Staff analyses confirm that successful bidders to supply power for SSO-type full requirements service include amounts in their bids to provide compensation for absorbing the costs of shopping-related risks. (Tr. v. II, p. 229.) Dr. LaCasse observed that in her role as an auction manager for auctions to procure supply for SSO, requests for data by bidders are to quantify shopping-related risk. (Tr. v. II, pp. 171-172.) Moreover, those studies support the conclusion that shopping-related risks create real, actual, costs for the entities, like the Companies, that bear those risks.[2]

[2] IEU witness Lesser criticized Dr. LaCasse's reliance upon the Northbridge and ICC Staff analyses on the ground that those studies are not comparable to the Companies' situation, first, because premiums identified by the studies are bypassable and, second, because the premiums encompass more than just shopping-related risk. Dr. Lesser contends that these attributes support a conclusion that the premiums in those studies are not an accurate indicator of what the Companies' POLR costs are and that, "[t]herefore, it is likely that AEP's calculated POLR charge is too high." (IEU Ex.1, at 16-17.)Regardless of the conclusion that Dr. Lesser draws about whether the studies support the level of the Companies' POLR charges, what is most notable about his testimony on this point is that he recognizes that the studies support the conclusion that the Companies do incur POLR costs as a result of shopping-related risks.

2. The Companies have provided ample evidence of their actual costs of providing POLR optionality to customers and that their existing POLR charges are cost-based and reasonable.

As explained above, and as the Commission confirmed at page 40 of the ESP Order, the Companies face significant shopping risks throughout the term of their ESPs as a result of being the POLR and making the commitment to provide SSO generation service to all customers at stable ESP rates. There can be no serious dispute, in light of the record evidence, logic, and, moreover, the Commission's findings (which were not contested, let alone reversed, on appeal) that the POLR risks that the Companies are facing include both migration and return risks. Nor can there be any serious debate that those risks impose costs on the Companies. The only question that remains, in light of the Court's decision, is whether the evidence of the actual costs that the Companies incur as a result of their POLR risks support the POLR charges that the Commission already has established.

The Companies submit that the evidence they have presented on remand, together with the evidence already in the record, supports a finding that their actual modeled costs of providing the POLR optionality confirm the reasonableness of the POLR charges that the Commission already has established. In addition, the evidence demonstrates that the Companies' POLR costs, and thus the charges that recover those costs, are <u>not</u> based on "the amount a customer would be willing to pay for the right to shop . . . ." Remand Decision at ¶ 27.) Instead, the remand record demonstrates that the costs to the Companies of providing the POLR optionality, in the context of the pricing commitments they have made in their ESP, have been determined by forward-looking, market-based, measurements that quantify those costs. The evidence also shows that the value to customers of the optionality that the Companies provide to them may be quantified by reference to the same market-based measurements. In simplistic terms this means that, for every $1 dollar that the Companies incur to provide the POLR optionality to customers, $1 is the measure of both the cost to the Companies and the value to the customer of the optionality It is appropriate, as a result, to charge customers on that basis. Accordingly, the record evidence also adequately explains the relationship between the cost to the Companies of providing the POLR optionality, on the one hand, and the value to customers of that optionality, on the other hand.

The Commission can find as a factual matter that the Companies used models to determine the POLR costs. Companies witness Dr. LaCasse testified, very clearly and directly, that an option model is an appropriate methodology for determining the Companies' cost of providing customers with a POLR option. (Cos. Remand Ex. 3, at 12.) She clarified that "[t]he 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." Her testimony dispels the view that the option model presupposes some subjective value based on what a customer might be willing to pay. She also testified that there is a direct correlation between the value to the customer and the cost to the EDU. She testified that the value of the option, i.e. the "expected value of the difference between the ESP price and the market price at which customers choose to shop," "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." *Id.* Dr. LaCasse also addressed the error in the view that POLR costs should be limited to after-the-fact, out-of-pocket expenses. She explained why from a rate making perspective, the expected *ex ante* cost, and not the actual after-the-fact cost is "the relevant measure" for any POLR charge. *Id.*

Dr. Makhija agreed that the costs to the EDU from serving as the POLR while guaranteeing the essentially regulated and stable ESP rate can be assessed by reference to the value of the options that are given to customers:

> Since the benefits of a POLR obligation to the customers of a utility represent costs that the utility bears, the value of the options given to the customers equals the POLR costs to the utility. In other words, the benefits provided to the customers cannot appear out of thin air. Someone has to provide these benefits, and for that party it constitutes a cost. The cost to the utility that provides the POLR optionality is no more or less that the value of the options received by the customers. Indeed, this is the approach taken by Company witness Thomas, who estimates the value of the optionality given to customers to determine the cost imposed on the Companies from their POLR obligation.

(Cos. Remand Ex. 1, 3-4.)

Companies witness Thomas also supported the option model that the Companies use as their primary means of quantifying their actual costs of providing POLR optionality pursuant to their ESPs. Ms. Thomas' testimony described the option methodology (the "unconstrained option model") that Company Witness Baker originally supported in this proceeding, which the Commission used to establish the Companies' existing POLR charges. Ms. Thomas also explained the refinements and improvements to the original option model that the Companies have made (the "constrained option model"). While Ms. Thomas believes that the original methodology was appropriate to use, she relies upon the improved, constrained option model to confirm the reasonableness of the existing POLR charges. (Cos. Remand Ex. 4, at 12-15.)

Dr. LaCasse also very effectively rebuts IEU witness Dr. Lesser's "thirsty-man" attempt to discredit the direct link between value of the POLR option to the customer and the cost to the Companies. (Cos. Remand Ex. 5, at 4-6.) Dr. Lesser's "thirsty-man-in-the-desert" demonstration assumed that the option model calculates the subjective value from the customer's standard – the higher value the thirsty man would put on the bottle of water. This is similar to the inaccurate assumption the Court made in questioning "how the amount a customer would be willing to pay for the right to shop necessarily establishes AEP's cost to bear the attendant risks." Remand Decision at ¶ 27. Dr. Lesser, like the Court, misunderstood what the option valuation measures. As Dr. LaCasse again explains in her rebuttal testimony, the option to shop provides the customer with the possibility of an "additional benefit" for the electricity the customer purchases, "namely the benefit of purchasing the electricity from a CRES provider at a price below the SSO price." (Cos. Remand Ex. 5, at 5.) The value to the customer is the difference between the SSO price and the lower market price, or the customer's actual saving. The value to the customer of returning to the SSO price, should prices subsequently rise above the SSO price, again would be the difference between the SSO price and the higher market price and would again represent the customer's actual saving. This is an objective, quantifiable value and it corresponds to the EDU's cost because the EDU's best option at the post-shopping point will be to make an alternative sale at the lower market price, which constitutes an actual quantifiable loss.

In her rebuttal testimony, Dr. LaCasse also successfully responded to Dr. Lesser's challenge by showing that using the empirical Monte Carlo model, preferred and advocated by Dr. Lesser, produced results fully supportive of the POLR costs calculated by the constrained model sponsored by the Companies in this proceeding. (Cos. Remand Ex. 5 at 7-10.) Although not needed to address the issues raised by the Ohio Supreme Court, the results of the alternative Monte Carlo model provide additional corroborating evidence of the validity of the Companies' analysis and results.

The remand testimony of the Companies' witnesses, standing alone, is sufficient to cure any shortcomings the Court perceived in the prior record because the testimony explains the rationale for using the Black model to estimate the Companies POLR costs and provides new evidentiary support by way of expert testimony of how the value of the POLR option to the customer relates to the cost to the Companies of providing the optionality.

B. The lawfulness of non-bypassable POLR charges to compensate EDUs for their costs of being the POLR is well established.

The Court's request that the Commission "revisit the [POLR] issue" did not in way call into question the appropriateness of compensating the Companies for discharging their POLR obligation. Any suggestion by Intervenors that this remand proceeding opens that door is inappropriate. The law imposes upon all EDUs a mandatory, continuing obligation to stand as the POLR entity in their respective service territories, and the Ohio Supreme Court has consistently recognized that EDUs are entitled to be compensated for discharging their POLR obligations.

1. The Early Recognition of POLR Charges.

The initial ESP Order in this proceeding was not the origin of the POLR obligation or charge; it existed, albeit at a reduced level, before the ESP Order in this case, and it will continue to exist regardless of the outcome of the remand phase of this proceeding. The legal basis for charging customers for the cost of providing the optionality either to take SSO generation service from the EDU at a regulated price for the term of the rate plan, to switch (migrate) to a competitive retail electric service (CRES) provider if that becomes economically advantageous, or to subsequently switch back (return to the EDU's regulated SSO generation price) is well-established. The Commission first established POLR charges to compensate EDUs for providing that optionality in the Rate Stabilization Plans (RSPs) that the Commission approved to take effect after the electric transition plan market development periods. The Court itself confirmed the Commission's finding that it is appropriate to provide recovery for the costs that the EDU (in that case Dayton Power & Light (DPL)) incurs as the POLR, which would not otherwise be recovered; and that such POLR charges may be applied to all customers, i.e. may be non-bypassable. *Constellation New Energy, Inc. v. Pub. Util. Comm.*, (2004) 104 OhioSt3d 530, at §§ 36-40.

Similarly the Court confirmed in *Consumers Counsel v. Pub. Util. Comm.*, (2006) 109 Ohio St.3d 328, in connection with an appeal of the First Energy EDUs' RSP, that a rate-stabilization charge appropriately compensated those EDUs for the cost of their commitment to supply SSO generation service at a regulated price for the three-year term of their RSP. The Commission also established non-bypassable POLR charges for CSP and OPCo in their RSP proceeding, Case No. 04-169-EL-UNC, Opinion and Order, at 27 and 29 (January 26, 2005), and Entry on Rehearing, at 7-9 (March 23, 2005), vacated and remanded on other grounds, (2006) 109 OhioSt.3d 511, Entry (August 9, 2006) finding that the Companies' RSP, including non-bypassable POLR charges, would remain in effect. The POLR charges are not a unique creation by the Commission in the Companies' ESP proceeding. The POLR charge is an accepted and established type of charge.

2. S.B. 221 expressly confirms the lawfulness of POLR Charges.

Subsequent to the Commission's orders authorizing and the Court's decision confirming the lawfulness of POLR charges in the context of rate stabilization plans approved pursuant to the provisions of S.B. 3, in particular §4928.14, Ohio Rev. Code, the Legislature enacted S.B. 221, which provided additional authority and support for the establishment of POLR charges as part of an ESP. For example, §4928.143(B)(2)(d), Ohio Rev. Code, specifically authorizes an ESP to include "terms, conditions, or charges relating to... bypassability, stand by service... default service . . . as would have the effect of stabilizing or providing certainty regarding retail electric services." As another example, §4928.20(J), Ohio Rev. Code, provides that, in the case of customers which are part of a governmental aggregation under §4928.20, "the legislative authority that formed or is forming that governmental aggregation may elect not to receive standby service within the meaning of division (B)(2)(e) [sic] of Section 4928.143 of the Revised Code from an [EDU] in whose certified territory the governmental aggregation is located and that operates under an approved electric security plan under that section." These provisions explicitly recognize the lawfulness of the POLR charges in the case of an ESP.

3. Ohio Rev. Code§ 4928.143 broadly defines "costs" to include "lost revenue."

Ohio Rev. Code §4928.143(B)(2)(h) also has relevance to the present inquiry. While this subsection of the statute does not speak to the POLR obligation or the terms, conditions or charges for default or standby service, it does directly confirm that, for purposes of designing the components of an ESP, "costs" are not limited to actual out-of-pocket expenses but may include as well "lost revenue." Subsection (B)(2)(h) provides that an ESP may include distribution infrastructure and modernization incentives, which in turn may provide plans "for the recovery of costs, including lost revenues. . . . " Because the General Assembly contemplates that recoverable costs may include "lost revenues" is subsection (B)(2)(h), it is proper for lost revenues to be considered a recoverable cost for purposes of subsection (B)(2)(d) as well. The two subsections are in the same statute and both provide for components that may be included in an ESP.

The POLR obligation clearly puts the Companies at risk of losing revenue when customers exercise their statutory right to switch to a CRES provider when market prices fall below the SSO or exercise their right to return to the SSO price when market prices rise above it. As Companies witness LaCasse testified:

> The EDU must honor the SSO price regardless of the market price fluctuations during the term of the rate plan. The customer's 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 the 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 market prices leading to a loss in revenue.

(Cos. Remand Ex. 3 at 5.) As Companies witness Thomas explained: "The cost to the company could be looked at in terms of [the cost of lost revenue], but it needs to be done on a going-forward basis in terms of looking at what is the cost that is incurred at the outset when the commitments are made to the pricing, and the model utilizes both an ESP price and a market price to determine what that cost is." (Tr. v. II, p. 241.) This risk of lost revenue is properly viewed as a cost-based risk under the ESP statute.

4. Ohio Rev. Code §4928.143 allows for non-cost-based POLR charges.

R.C. 4928.143(B)(2)(d) is significant in that it provides that a standby or default service charge, which is what the POLR charge is, need not be cost-based. Unlike R.C. 4928.143(B)(2)(h), which requires that any distribution service improvement or modernization rider included in an ESP to be based on costs, R. C. 4928.143(B)(2)(d) expressly allows standby or default service riders to be included in an ESP to the extent that the Commission finds such rider "would have the effect of stabilizing or providing certainty regarding retail electric services." The provision supports the Court's conclusion that "the commission may consider on remand whether a non-cost-based POLR charge is reasonable and lawful." Remand Decision at ¶ 30. While the Companies believe that the record before the Commission now amply establishes that the existing POLR charge is justified as a cost-based charge, the existing POLR charge is alternatively justified because it has the effect of providing stability and certainty regarding the price customers will pay for retail electric service.

As Companies witness Thomas testified: "[T]he POLR charge reflects the cost of providing a customer with switching options, not the cost of capacity or energy to serve the customer." (Cos. Remand Ex. 4, at 9.) The POLR optionality gives all customers the choice in the future to switch to a CRES provider if it is to their benefit and to return to the SSO price when that choice provides the greater benefit. In effect, the POLR optionality provides the "safety net" that permits customers to effectively exercise their right of choice without fearing the volatility of the marketplace. As Ms. Thomas explained: "Payment of the POLR charge provides the customer a benefit by having a stable price option for generation default service instead of market based pricing for default generation service." (Cos. Remand Ex. 4 at 9- 10.) The POLR charge allows customers to have a safety net while protecting the Companies from a "heads I lose, tails I lose" scenario that would leave them in the unfair position of being forced to sell excess power below the SSO rate when market prices fall but sell to all customers on demand at the below market SSO when market prices rise. Thus, even if the POLR charge could not justified on a cost basis, although the record establishes that it is cost-based, the charge is nevertheless justified under R.C. 4928.143(B)(2)(d).

5. The Commission has recognized the need to provide for the recovery of POLR costs incurred by other Ohio EDUs.

As Dr. LaCasse explains in her testimony all EDUs are exposed to shopping-related risks and costs resulting from their statutory POLR obligation and must have a way to manage these risks regardless of whether the EDU continues to own its generation assets or not. (Cos. Remand Ex. 3, at 5-11.) The Commission also has recognized this fact and has in fact approved the recovery of POLR charges for all of the other Ohio EDUs. While the specifics of the other EDUs' POLR charges differ in scope and degree, they all have POLR charges that are at least compensatory at some level.

Each of the Ohio electric utilities that own generation currently have POLR charges that were established under their respective ESPs. For Duke Energy Ohio and The Dayton Power and Light Company, the Commission has approved non-bypassable charges for providing stable pricing during the ESP period and for providing POLR service. The actual charges vary by company. Moreover, the Companies' current POLR charges are comparable to, if not less than, the charges approved for these other EDUs. For a typical residential customer using 1,000 kWh or less, the table below summarizes the POLR charges for each Ohio utility that owns generation. As shown in the table, the POLR charges for OPCo and CSP, approved by the Commission in this case, are comparable to, if not less than, the charges approved for Duke and DP&L.

Typical Residential (1,000 kWh) Monthly POLR Charge

Company	Block	Rate	Monthly POLR
DP&L	0-750 kWH	$0.0063400	
	750-1000 kWh	$0.0051700	$6.05
Duke	All kWh	$0.0026740	$2.67
CSP	All kWh	$0.0056955	$5.70
OPCo	All kWh	$0.0023366	$2.34

The First Energy EDUs' POLR charges are embedded in the SSO generation rates which are the result of the competitive bidding process described by Companies witness Dr. LaCasse. (Cos. Remand Ex. 3, at 8-9.) Through the competitive bidding process for full-requirements SSO contracts, FE in effect transfers the POLR risks to the winning bidders and the price paid by FE's SSO customers includes the bidders' costs for bearing the POLR risks associated with supplying these customers. Id.

Thus, the lawfulness of non-bypassable POLR charges to compensate EDUs for their costs of being the POLR cannot be disputed. Because the POLR costs incurred to provide stable SSO pricing to the customers of all EDUs in Ohio are being recovered through POLR charges, either explicitly by EDUs or implicitly through the competitive bid prices of SSO suppliers, it would be unfair and unlawful to deny the Companies that same right. The question for the Commission is not whether the Companies are entitled to recover their costs of providing POLR optionality, the only question before the Commission is what is the level of costs to be recovered in the POLR charge and how can the Commission best explain its rationale for determining those costs.

C. The Companies' POLR obligation under the ESP results in significant risk due to the shopping optionality, including a risk due to migration.

A corollary to the customers' rights to shop under S.B. 3 and S.B. 221 is the EDU's obligation to be the POLR, a requirement imposed on EDUs by multiple statutory provisions. R.C. 4928.141(A) imposes on an EDU the requirement to provide consumers within its certified service territory "a standard service offer of all competitive retail electric services necessary to maintain essential electric service to consumers, including a firm supply of electric generation service." Ohio Rev. Code, §4928.141(A) When coupled with the right to choose a retail generation supplier, availability of SSO rates to any customer means that a customer can freely leave the EDU when market price is lower than the stabilized SSO rate and can just as easily return when the market price rises above the SSO rates. Given the volatile nature of market prices for electricity, there exists a potential for "churn" or migration of customers on and off SSO service. Another POLR obligation is based on R.C. 4928.14, which provides that customers of a defaulting competitive provider return to the EDU's SSO until the customers choose an alternative supplier. Ohio Rev. Code Ann. 4828.14 (2010). EDUs must stand ready to serve in these situations and fulfill their statutory POLR obligation.

Companies witness Thomas described the practical significance of these statutory obligation for the Companies.

> The Companies incur a POLR obligation because all customers are free to switch to generation service from a CRES (Competitive Retail Electric Service) provider, either on an individual basis or as part of government aggregation. In addition, customers are free to return to receiving SSO generation service from the Companies when they so choose. The Companies must then serve such customers whether it is the choice of the customer to return or if the CRES provider or supplier to the governmental aggregation group were to default in its service obligation. Consequently the Companies' generation obligation is subject to significant volatility.
>
> The flexibility or options provided to the customers are obligations of the Companies which are put in the position of losing customers when the competitive market price is low, but are required to stand ready to serve that load again when market prices increase and customers return.

(Cos. Remand Ex. 4, at 3.) Ms. Thomas also explained that the POLR obligation and thus the POLR risk is unique to the Ohio EDUs and is not shared by the CRES providers. Unlike the EDUs, "CRES providers do not have such obligations and are free to choose the customers they serve, the length of time they provide service, and the pricing and terms and conditions for such service." Id., p. 4.

The Companies filed their proposed ESP in this proceeding on the same date that SB 221 became effective, July 31, 2008. As part of their ESP application, the Companies proposed a non-bypassable POLR rider to collect an annual revenue requirement reflecting the costs of fulfilling their POLR obligation. (ESP Order at 38 (internal cites omitted).) In considering the proposal, the Commission recognized that AEP Ohio's proposed POLR charge would cover two distinct risks: "the cost of allowing a customer to remain with the Companies, or to switch to a [competitive] provider and then return to the Companies' SSO after shopping" and noted that AEP Ohio "utilized the Black-Scholes Model to calculate their cost of fulfilling the POLR obligation, comparing customers' rights to 'a series of options on power.'" (ESP Order at 38-39 (internal citations omitted).) The Commission also recognized its Staff's position that there are "two risks involved: one risk is the risk of customers returning to the SSO and the other risk is that the customers leave and take service from a [competitive] provider (migration risk). Staff witness Cahaan testified that the risk associated with customers returning to the SSO could be avoided by requiring the customer to return at a market price...." (ESP Order at 39 (internal citations omitted).) As between the two risks, the Commission noted that AEP Ohio's testimony indicated "the migration risk equals approximately 90 percent of the Companies' POLR costs pursuant to the Black-Scholes model." (Id.)

The Commission decided to grant and modify AEP Ohio's proposed POLR charge as part of its decision in the ESP Cases:

> Therefore, based on the record before us, we conclude that the Companies' proposed ESP should be modified such that the POLR rider will be based on the cost to the Companies to be the POLR and carry the risks associated therewith, including the migration risk. The Commission accepts the Companies' witness' quantification of that risk to equal 90 percent of the estimated POLR costs, and thus, finds that the POLR rider shall be established to collect a POLR revenue requirement of $97.4 million for CSP and $54.8 million for OP.

(ESP Order at 40 (internal citations omitted).) Thus, regarding the migration risk (that customers could migrate, i.e., leave, when market prices drop below the SSO rate during the period of the ESP), the Commission agreed that 90% of the requested POLR revenue requirement should be allowed to compensate AEP Ohio for that risk. Regarding the second risk (a customer shopping and then returning to the SSO rate when the market price goes back up), the Commission permitted shopping customers to bypass the POLR charge if they agree to pay a market price if they end up returning to SSO service later; otherwise, those shopping customers would continue to pay the POLR charge during the time they received generation service from a competitive service provider. (ESP Order at 40.)

During rehearing, neither OCC nor IEU raised a claim that the POLR obligation did not include the risk of a customer leaving the SSO; they argued only that the model projected unduly high shopping and associated POLR costs. Thus the key finding made by the Commission was not at issue on appeal and was not addressed by the Court. As such, that issue is not properly raised in this remand proceeding. The issue on remand is the appropriate level for the POLR charge –not whether there should be a POLR charge or whether the charge should compensate for the risks associated with customer migration. These latter issues have been conclusively determined in this proceeding and are not now open to debate.

The Intervenor witnesses in this remand proceeding nevertheless argue that the Commission should reverse itself at this late date and now exclude the Companies' migration risk from any POLR rider. They argue that the Companies' migration risk is merely a competitive risk no different than the risk experienced by competitive CRES providers – the mere ebb and flow due to customer mobility. Companies witnesses Thomas and Dr. LaCasse, however, testified to the very real risks of migration to the EDUs burdened with the POLR obligation, and how that risk of losing customers when the competitive market price is low is unique to the EDUs. (Cos. Remand Ex. 3, at 5; Tr. v. II, pp. 141-43, 148-49; Cos. Remand Ex. 4, at 3.) Staff Witness Cahaan also has recognized this migration risk as a component of the shopping risk distinct from the risk of customer return. (Staff Ex. 10, Prefiled Testimony of Richard Cahaan (11/07/08) at 5.)

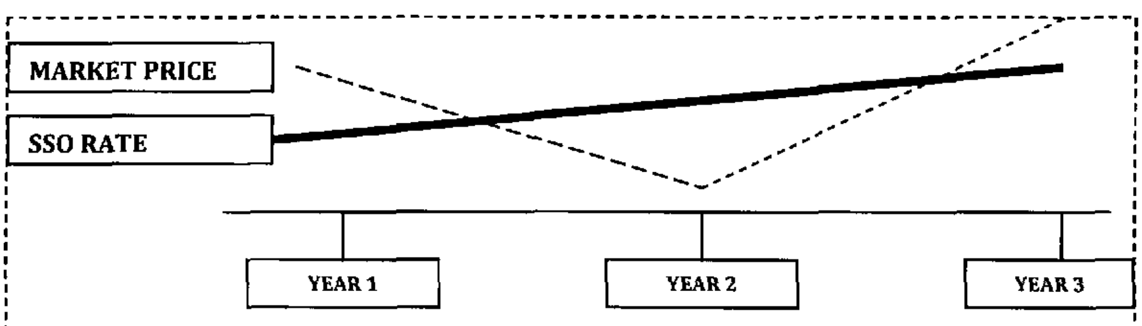
While the Intervenor witnesses attempt to redefine the migration risk as nothing more than the competitive risk all providers share due to the ebb and flow of customers, in fact, no party to this remand proceeding could deny, and indeed all parties acknowledged, that the Companies as the sole POLR in their respective service territories are unique in that they alone have committed to provide generation service to all customers on demand at pre-determined, below-market SSO rates, regardless of whether the market rate for such service falls below or rises above the ESP rate. See e.g. Tr. v. III, pp. 337-341 (IEU Witness Lesser); Tr. v. IV, pp. 469-476 (OCC Witness Thompson); Tr. v. IV, pp. 557-562 (IEU Witness Murray). Because the Companies shoulder this unique statutorily- imposed obligation, they likewise bear a unique risk of migration – the risk that customers will switch to a competitive provider when the market price falls below the SSO rate, such that the Companies must sell electricity they were required to have available to satisfy their SSO obligation at the reduced market price rather than the SSO rate, assuming they can sell it at all. Constellation witness Fein testified directly as to the risk of migration as a distinct risk recognized through an incremental premium in a competitive bidding process for SSO load conducted for an EDU without its own generation assets. (Tr. v. III, p.420-23, 435.) IEU witness Murray conceded this point as well. (Tr. v. IV, p. 584.)

This migration risk is very real and very different than the traditional risk of customer mobility shared by all providers because no other provider is statutorily obligated to provide a standard service offer, including a firm supply of electric generation service, for all customers and to do so at essentially fixed rates. The Commission should reaffirm its prior opinion that the POLR risk, includes a significant and distinct risk of migration as well as a risk of return, not just because it is precedent but because it is the only result that comports with the statutorily-mandate scope of the POLR obligation.

D. The business and financial aspects of POLR risk faced by the Companies were real at the time of the ESP Order and have been confirmed since that time through actual shopping.

The Companies' approved POLR charges are based on the interrelationship between the cost to the Companies of providing POLR service and the value to the customers of having the "optionality" provided by SB 221. Economically rational customers will exercise their rights to change providers when the economic benefits are apparent. On the other side of the transaction, however, the Companies bear the difference between market and ESP prices as a loss and collecting the approved POLR charge enables it to stand ready to discharge its POLR obligations. The value of the customers' right to switch under S.B. 221 comes from the option customers are given to switch suppliers, while still having the safety net of the ESP rate to come back to, if electricity prices move in a way that makes switching back to the Companies an economically attractive choice or if their supplier defaults.

The cost of that option exists at the beginning of the ESP term, independent of the actual outcomes that materialize in the future. The Companies committed at the outset of the term of their ESP, based on current circumstances and uncertainties, to provide an SSO price for the full three-year term and undertake the attendant POLR risk. The diagram below illustrates this relationship through a hypothetical example:



Under this hypothetical, customers are likely to stay on (or return to) the SSO rate in years 1 and 3, while they would likely shop in the market during year 2. At the outset of the three-year ESP, nobody (including the Companies) could predict with certainty where the market price (dotted line) would go during the subsequent three years. There are a myriad of factors that affect the market price of electricity, causing it to be volatile over any given period of time. Yet, the Companies' obligation to support the SSO price during the entire ESP term was firmly established on the first day of the ESP. The migration risk, for which the Commission authorized the POLR charge, is illustrated in year 2 when customers could leave the SSO to pursue more favorable market prices. The amount collected through the POLR charge allowed the Companies to ride out those fluctuations in market price.

The POLR risk exists because of the very real fact that customers can switch; it is not based on whether they exercise their right to switch. An option gives one a right (but not the obligation) to do something, and one pays for that right and another is appropriately compensated for ensuring that right. The value and legitimacy of the option is not dependent upon whether it is exercised. Co. Remand Ex. 4, p. 8. As Companies witness LaCasse explained the POLR charge can be likened to an insurance premium.

> The SSO provides customers with an insurance policy against rising market prices while providing them with the opportunity to take advantage of declining market prices by shopping. This insurance policy provides customers the security of a price for their electric service that need not exceed the SSO price approved by the Commission. Like any insurance policy, it is valuable to the customer to be insured whether or not prices in fact rise during the SSO term. Like an insurance policy, there is a cost to the insurer of providing the protection. The premium reflects the costs of bearing POLR risks recognizing that there are a variety of ways to manage such risks.

(Cos. Remand Ex. 3, p. 10.)

Even though the up front POLR risk is not tied to the actual level of shopping (because all customers have the option to shop during the entire ESP term and market prices during the ESP term will change), shopping levels have increased substantially for the Companies during the term of the ESP. For example, as shown in an exhibit to Ms. Thomas' testimony, switching levels have increase each month for Columbus Southern Power, particularly in the last year. (Cos. Remand Ex. 4, p. 8, Exs. LJT-2.) Ms. Thomas also notes that the aggregation of customers in various municipalities is increasing. (Id., p. 8.) She notes "[t]his is significant because customers (and their loads) may switch suppliers in large numbers when aggregation opportunities are offered. Considering these recent trends leads to the conclusion that customer switching will continue to increase for both CSP and OPCo." Id., pp. 8-9.

Thus, there is no feasible argument that the Companies do not face and experience substantial POLR risk that results from being required to offer all customers at all times its SSO price while those same customers have the right to accept or reject that price at any time. Nor can there be any doubt that carrying that risk creates a significant liability and, thus, costs for the Companies. Moreover, the evidence shows that customers recognize the value received in exchange for the current POLR charge. "To date, of the customers that have selected service from a CRES provider and received distribution service from the Companies, approximately 98% have elected to continue to pay the POLR charge rather than face the prospect of returning to the Companies at market rates." (Cos. Remand Ex. 4, at 7.) This further proves that the POLR optionality has real value for the customers, which not surprisingly comes at a cost the Company must be allowed to recover.

E. Option valuation as a methodology for measuring the cost associated with shopping-related risk is valid.

The Companies in their original filing in this ESP proceeding in 2008 quantified the cost of their shopping-related risks by calculating the value of an option using the Black-Scholes model. As inputs they used their proposed first-year ESP price as the strike price, the then-current Competitive Benchmark price as the current market price, the three-year ESP term as the term of the option, the LIBOR interest rate as the risk-free interest rate, and a measure of annual average volatility, based on historical data, as the volatility. ESP Order at 38-39. The original model did not incorporate constraints on customer switching and, consequently, is referred to as "the unconstrained model." (See Thomas, Cos. Remand Ex. 4, at 12-14.)

Since 2008, the Companies have further refined and improved their option model. One improvement was to incorporate the switching constraints or shopping rules from their tariffs to more accurately reflect the actual options that customers have for leaving and returning to the ESP's SSO generation service. As a result, the current formulation of the option model is referred to as "the constrained option model." (Id., at 14.) In addition to incorporating switching rules, the constrained option model has the ability to utilize ESP prices that change over the term, and it also reflects that customers actually receive, in effect, a series of options to buy SSO generation service at the ESP price during the term of the ESP. (LaCasse, Cos. Remand Ex. 3, at 17.)

1. The Option Model Method for Determining the Costs of Providing POLR Optionality at an ESP Price

Companies witness Thomas used the improved "constrained option model" to estimate the Companies' POLR costs under the current ESP. Using the constrained option model, with updated inputs for the final 2009-2011 SSO generation rates approved by the Commission and to reflect the decreased market prices (as identified in the testimony of Staff witness Johnson)[3] used by the Commission, Ms Thomas calculated average POLR charges of 0.410¢/kWh and 0.215¢/kWh for CSP and OPCo, respectively. The inputs and results of this analysis are provided in Ms. Thomas' testimony, (Cos. Remand Ex. 4, at 15-16 & Ex. LJT-4.) Comparing these results to the unconstrained model resulting in the Commission approved POLR charges shows that the Companies' conservative approach under the unconstrained option model produced comparable results to those that would have been produced if compliance POLR

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[3] Based on the existing record, this reduction reflects the approximate drop in market prices which occurred between the time of the Company's filing and resolution of the case with the Commission's order. (Id.)

charges had been calculated at the time of the Commission's order in 2009 using the improved constrained option model available today. (Id.)

Dr. LaCasse reviewed the Companies' implementation of both the original unconstrained option model and the improved constrained model and made an assessment of the results produced by each. With regard to the original unconstrained model, she testified that it included both factors that would tend to overstate <u>and</u> factors that would tend to understate the option valuation and the POLR charges. (*See* LaCasse, Cos. Remand Ex. 3, at 14.) As noted above, she observed that the unconstrained model did not account for a number of factors related to switching, which would tend to overstate the POLR charge. First, she noted that switching restrictions that would limit the number of times a customer can switch to and from the SSO would reduce the cost of providing the POLR option but were not accounted for in the unconstrained model. (Id.)

The unconstrained model also did not take into account the fact that not all customers exercise the option to switch to a CRES provider as soon as it may be advantageous to do so. (*Id.*) Dr. LaCasse explained that such transaction costs limit the degree to which customers take full advantage of the POLR option and, therefore, limit the cost of providing the option. (Id.) Finally, she noted that the unconstrained model valued the POLR option as an option to switch at the end of the ESP term, rather than a series of options that can be exercised each month of the ESP term. She explained that the latter valuation, which is more akin to a customer's option to switch to a CRES provider, would tend to decrease the cost of providing the option. (Id. at 14-15.)

Dr. LaCasse also explained that, on the other hand, a number of factors and assumptions in the unconstrained model would tend to understate the POLR charge. The use of a single, annual volatility factor tends to understate the cost of providing the POLR option because customers have the ability to switch monthly. (Id. at 15.) Dr. LaCasse explained that because monthly volatilities are greater than annual volatilities, the cost of the monthly option is not fully captured in the unconstrained model. (Id.)

The unconstrained model also does not consider the full dynamics of market prices; rather, it only considers whether prices either rise or fall. As Dr. LaCasse explained, the unconstrained model does not consider more complex scenarios where, for example, market prices may first fall but then rise again afterwards. (Id.) Such scenarios tend to increase the cost of providing the option. As she noted, if prices decline, it is economically rational for customers to choose service from a CRES provider, but the possibility that prices may subsequently reverse and rise sufficiently that customers would want to switch back to the SSO would nonetheless exist. (Id.) In such a situation, were an EDU to leave its supply unhedged in order to retain the capacity to serve returning customers, the EDU would be exposed to the possibility of further declines in prices and a greater revenue shortfall compared to expectations. (Id.) Alternatively, she explained that were the EDU to hedge and enter into a new sale for the remaining term of the ESP at the lower, then-market price, the EDU would be exposed to the possibility of prices rising and customers returning to the SSO, requiring the EDU to divert a portion of the output of its own generation assets or to purchase from the market to meet its SSO obligation at a higher than expected cost. (Id. at 15-16.)

Dr. LaCasse identified other respects in which the unconstrained model leads to a further understatement of POLR costs. First, the unconstrained model's assumption that the option premium is paid on the date at which the option is valued understates POLR costs. This is because the POLR charge is not paid on the valuation date but over the course of the ESP, on average about two years after the valuation date. (Id. at 16.) Assuming a 3.5% discount rate, Dr. LaCasse explained that this leads to at least a 7% understatement of the POLR charge, particularly because the POLR charge was set at only 90% of the calculated cost of the option. (Id.) The second respect in which the unconstrained model further understates POLR costs is not related to the methodology, but to the data. As Dr. LaCasse explained, the Companies used as the strike price in the unconstrained model the ESP price that was projected for the first year of the ESP term. (Id.) That price, however, was expected to rise over the term of the ESP. (Id.) Because a higher ESP price produces a higher option value, the use of the first year ESP price as the strike price led to a lower option value and lower POLR charges. (Id.)

Dr. LaCasse next evaluated the extent to which the constrained option model corrected for the tendencies of the original, unconstrained model to over- or understate the Companies' POLR costs and charges. She explained that two of the three source of overstatement are fully corrected and quantified in the new, constrained option model. (Id.) The constrained model is more complex than the unconstrained model; it calculates the cost of the option in a manner that reflects that the option is actually a series of options and also incorporates the switching rules. (Id.) Dr. LaCasse noted that the third source of overstatement, the possibility that not all customers may avail themselves of the option immediately upon becoming economically advantageous to do so, while difficult to quantify, is likely not significant because of a relatively unique feature of Ohio regulation. (Id.) Specifically, she explained that this is because a significant portion of customer switching in Ohio appears to be the result of "opt out" aggregation, where large groups of customers leave the SSO all at once. *(Id.)*

With respect to the original unconstrained model's tendencies to understate POLR costs and charges, Dr. LaCasse stated that the constrained model corrected for the expected increases in the ESP price over the term of the ESP. Otherwise, she testified, the updated results do not correct for other factors that she identified as tending to understate the POLR charge. (Id. at 17.) In her view, the most significant of these is the fact that the constrained model's results do not take the full dynamics of prices into account. (Id.) She noted that, while the constrained model accounts for switching restrictions, it does not measure the expected cost to the Companies of customers potentially leaving and then returning during the term of the ESP. (Id.) The Companies must stand ready to serve 100% of the SSO load. If a significant portion of SSO customers leave, she explained, the Companies would be holding an unhedged generation portfolio and would be exposed to the financial risk and uncertainties of the spot market, not knowing whether customers would return. (Id. at 17-18.)

Dr. LaCasse concluded, after reviewing both the original unconstrained option model and the updated and improved constrained model that the option valuation as a methodology for determining the cost associated with shopping-related risk is conceptually valid. (Id. at 18.) She reiterated that the original unconstrained model included a number of factors that would tend to either understate or to overstate the POLR charge. (Id.) She emphasized that the updated results of the constrained model corrected the major factors that would tend to overstate the POLR charge but do not, by and large, correct for factors that would tend to understate the POLR charge. (Id.) She concluded that the updated results of the constrained model appear to be conservative estimates of the Companies' POLR costs and, thus, provide a conservative basis for the charges that they support. (Id.)

2. A "Monte Carlo" Method of Estimating the Companies' POLR Costs Confirms the Reasonableness of the Results Obtained Using the Black, (Constrained) Option Valuation Method

IEU witness Lesser contends that the Black (or Black-Scholes) option models "cannot" be used to determine the Companies' POLR costs and that use of a "Monte Carlo" model would be necessary to avoid the pitfalls that he believes affect the use of the option models. (IEU Ex. 1, at 22.) Although Dr. LaCasse disagreed with Dr. Lesser's view that use of an option model is inappropriate, she did conduct an empirical Monte Carlo analysis in order to compare its results to the results that the Companies obtained using the option valuation models. She concluded that application of the Monte Carlo method "only serves to support the reasonableness of the results obtained from AEP Ohio's option valuation methodology." (Cos. Remand Ex. 5, at 7-8.)

She used a Monte Carlo model that quantifies the cost associated with shopping-related risks by stochastically modeling costs under different and changing market conditions. She noted that the Monte Carlo model incorporates an analysis of the cost to hedge risk associated with AEP Ohio's POLR obligation and, consequently, addressed Dr. Lesser's criticism (IEU Ex. 1, at 34) that AEP Ohio had not provided any analysis of the costs of hedging such risks. (LaCasse, Cos. Remand Ex. 5, at 8.)

Dr. LaCasse used the same basic inputs in her Monte Carlo analysis that the Companies used in the constrained option model. In particular, she used the same class loads, ESP prices, competitive market rates, and volatility. She also included the restrictions to shopping incorporated in the constrained model. (Id.)

Dr. LaCasse described in detail how the Monte Carlo model works. She explained that the Monte Carlo model involved multiple simulations of the impact of changing market prices. Each iteration of the model simulates the retail market prices. Every month during the ESP period, the model predicts a forward curve for the remaining term of the ESP period assuming that market prices follow a random walk. Customers leave SSO when the prevailing retail price falls below the ESP price. The model assumes that AEP Ohio sells power forward at prices below the ESP price when the model predicts migration in future months. The model calculates the cost to AEP Ohio as the difference between the ESP price and the prevailing retail price (when that price is lower).

If prices rise above the ESP price and customers return to the SSO, the model assumes that AEP Ohio would purchase from the market at those higher market prices to serve SSO customers. The model also assumes that AEP Ohio will purchase power forward if the model predicts AEP Ohio would need to do so to serve SSO customers in future months. The model calculates the cost to AEP Ohio as the difference between the now higher retail price and the ESP price. Exhibit CL-2 to Dr. LaCasse's Rebuttal Testimony on Remand, Cos. Remand Ex. 5, illustrates the cost from shopping-related risk in a given month.

In each iteration of the model, the cost related to shopping-related risk is calculated on a per MWh basis. The model is run 20,000 times to allow for several different market price scenarios and the cost over all runs is averaged (Id. at 9.)

Dr. LaCasse testified that the results of the Monte Carlo modeling that she performed support the reasonableness of the shopping-related costs calculated by the constrained model. She presented the results of the Monte Carlo analysis in Exhibit CL-3 to her rebuttal testimony, Co. Remand Ex. 5. Contrary to IEU witness Lesser's contention, at 32 of IEU Ex. 1, that the value of an option does not approximate the expected cost to the Companies of providing the POLR optionality, Dr. LaCasse testified that the results from the Monte Carlo model support the magnitude of the cost associated with shopping-related risk calculated by the Companies using the constrained model. (Cos. Remand Ex. 5, at 9-10.)

Although the Monte Carlo modeling produced values of approximately 80% of the amounts produced by the constrained option model, Dr. LaCasse readily identified a significant difference in the Monte Carlo method, compared to the constrained option modes, that accounts for the difference. She explained that the Monte Carlo model assumes that customer makes decisions of whether or not to shop and take service from a CRES provider in a more myopic fashion that the customer in the constrained model. Under the constrained model, the customer decides whether or not to take service from a CRES provider by considering the entire path of future prices, the switching restrictions that apply, *and* by considering the possible future movements that may occur. (Id., at 10.) As a result, the customer's decision-making process that the Monte Carlo model assumes will tend to understate the POLR cost compared to the calculation of those costs using the Companies' constrained model. (Id., at 11.) In sum, the Monte Carlo method of calculating the Companies' actual POLR costs confirms the reasonableness of the POLR costs quantified by the Companies' constrained option model. As a consequence, since the constrained model's results support the reasonableness of the existing POLR charges, the Monte Carlo method also confirms the reasonableness of the existing charges.

F. Intervenor criticisms of the Companies' use of the constrained Black model are not persuasive.

The Intervenors offered a number of criticisms concerning the particulars of the option model. AEP Ohio provided the appropriate context for each of the Intervenors' criticisms and on rebuttal provided an updated model that was referred to by IEU witness Lesser. At the end of the day, the constrained Black model used by the Companies on remand verified the reasonableness of the Commission's initial decision. The use of the Commission's initial decision on the level of cost to attribute to the POLR obligation is clearly supported by the remand record and should be applied for the remainder of 2011.

OCC and IEU raise criticisms that the model does not take into account non-price factors that could impact a customer's decision not to switch suppliers (OCC Remand Ex. 1, Mack Thompson Direct at 19-21; IEU Remand Ex. 2, Murray Direct at 13-14) and that it assumes that customers will act rationally in a perfect market (IEU Remand Ex. 1, Lesser Direct at 19-20). Specifically, OCC seeks to establish that the model inputs ignore factors including customer loyalty, brand awareness, the lack of CRES marketing to a customer class or area, and customer awareness. OCC takes issue with the model's reliance on price as the only factor driving decisions and states that the fact that not all customers in a class have switched shows that the model cannot assume behavior based on price alone. IEU witness Lesser asserts that it is not reasonable to assume perfectly rational consumers and that customers are not option traders. (Id. at 19).

The arguments on the non-price factors and IEU argument on a lack of rational behavior suffer from a number of defects. First, Intervenors make the mistake of trying to model an emotional behavior in a model focused on rational action by the customer. It would not be appropriate to model such non-quantifiable elements in an economic model. On cross examination IEU witness Lesser even agreed that it is appropriate to assume a "perfectly rational consumer" when considering traditional economics. (Tr. Vol. III at 352-353; Cross-Examination of Dr. Lesser). Next, the Intervenors fail to account for the offsetting customer specific non-price factors that could equally sway a customer to make a non-economic decision the other way. Company witness Thomas discussed the logic in assuming customers would be price responsive and that non-price factors, which work both ways are not known and therefore are not properly modeled. (Cos. R. Ex. 8, Thomas Rebuttal at 6).

OCC also assumes that the level of switching after the SSO price is in effect (a retroactive view) can be used to define the proper costs to apply to the rate. As discussed above, the obligation is borne by the utility at the outset of the ESP period, therefore the risk should be measured and defined at that point as well. Modeling is a reasonable economic tool for the Commission to use as a basis for finding the appropriate level to determine those costs. Modeling at the appropriate time (i.e. when the decision is being made so that further actions can rely upon that timely determination) is critical for the determination of the POLR charge.

Another of OCC's positions criticizing the model involves a critical issue for the Commission's overall review – the definition of the POLR risk. OCC asserts that the model is flawed because it models a situation associated with the risk that customer will leave the SSO in the first instance, not just that the customer could return to the SSO after leaving for another supplier. Yet at its core the POLR risk involves both the risk of departure and return because the obligation to maintain a SSO requires actions to provide service to all customers and actions related to all the customer decisions, not just a decision to return.

Intervenors also raise accusations that the models run in this proceeding (both constrained and unconstrained) contain errors that make the outcome flawed. Specifically, OCC and IEU assert that the volatility assumptions made for the model are in error. The Intervenor concerns on the volatility assumptions used in the model (found in OCC Remand Ex. 1, Thompson testimony at 28-30; IEU Remand Ex. 1, Lesser's testimony at 20-21; and Staff Remand Ex. 1,Benedicts testimony at 3) are without merit. OCC asserts that the models only determine the volatility of a single component and applies that level to all remaining components. (IEU

Remand Ex. 1, Lesser Direct at 29). IEU witness Lesser asserts that the model would require a determination of the appropriate volatility by looking at the future volatility of the asset. (Id. at 21). Staff witness Benedict argues that the volatility assumption made by AEP Ohio is applied too broad and that Companies should reduce their assumption by 20 percent. (Staff Remand Ex. 1 at 3.)

The volatility assumptions considered for the updated constrained model and the Commission approved model are justified in using a historical view of volatility. IEU witness Lesser himself admits that historic volatility is a predictor of future volatility. (Id. at 21). Companies witness LaCasse testified that in thin option markets a historical assessment may be a more accurate predictor of the level of volatility. (Id. at 22). The market was thin at the start of 2009 and as Dr. LaCasse testified, AEP Ohio did not even have access to 2008 market data that would provide a basis for calculating implied volatilities using trades or quotes from a liquid market. (LaCasse Rebuttal at 4.)

As described by Company witness Thomas, the Companies' approach for the volatility input was to use "...an annual average amount as opposed to deconstructing it and looking a varying volatilities for the components." (Tr. v. II at 249-250.) Rather than review the appropriate volatility for each component of the market price, Intervenors and Staff seek an inappropriate reduction in volatility by retaining the use of the conservative annual average volatility, on the one hand, but applying it to only the energy components of the market price. Energy components make up 80% of the competitive benchmark or market price (Staff Remand Ex. 1, at 3.) They then assume that the remaining components, which comprise 20% of the competitive price, have zero volatility, even though they acknowledge that some, if not all, of those components do exhibit some volatility. (Tr. v. III, p. 449, OCC Remand Ex. 1 at 29.) The reasonable approach, which Ms. Thomas adopted, is to apply the conservative annual volatility measure to all components of the benchmark price.

OCC also incorrectly claims that certain date assumptions used to run the model were incorrect and correction of these errors would reduce the POLR estimate significantly. OCC witness Thompson admits that these date errors are less of a concern in the constrained model offered by Companies witness Thomas' testimony. (OCC Remand Ex. 1, Thompson Direct at 35.) Mr. Thompson testified that he was unsure of the application of the constrained model to verify that this was not a concern at all. His reservation remained tied to the length of time the model computes the values of a series of European options and his characterization that customers would move for just a penny savings.

The simple response to OCC's concern over the computation of a series of options and his characterization of customer movement is that OCC is not properly applying either model. As explained by Company witness Thomas, the unconstrained model produces a cost based on a single option. (Cos. Remand Exhibit 8, Thomas Rebuttal at 12; Tr. Vol. II at 243). In addition, as pointed out by Ms. Thomas, the constrained model figures the most economical single option for a kWh based on a myriad of price paths applicable to a customer class, while taking into account the switching constraints. Ms. Thomas detailed the application of the constrained model in her rebuttal testimony. (Cos. Remand Ex. 8, Thomas Rebuttal at 7-12). She clarified the basic steps of the model to illustrate how the price paths and nodes over the term of the ESP are used to determine the least cost option.

IEU witness Lesser raises some other general criticisms of the model based on his description of the assumptions of the model. These criticisms include the use of a European model as opposed to an American model, and the lack of a constant strike price. The general criticisms point out preferences of what the witnesses would do with the model as opposed to invalidating the model. For instance, the use of a European option instead of an American option is a red herring. The testimony of OCC witness Thompson showed that there is a simple application that can compare a European and American option in this context. (Tr. Vol. IV at 499-500; Cross-Examination of Mack Thompson). In fact, Mr. Thompson ran the comparison and the American option even had a slight premium added over the European option. (Id. at 500-501). The criticism of the strike price was also shown not to be a concern by applying IEU's recommendation to run a Monte Carlo model.

IV. IEU AND OCC'S ARGUMENTS SEEKING TO FLOW THROUGH ANY ADJUSTMENT TO DEFERRALS OF EXPENSES INCURRED PRIOR TO JUNE 2011 IS OUTSIDE OF THE SCOPE OF THE REMAND AND IS BARRED AS RETROACTIVE RATEMAKING.

IEU's and OCC's attempt to expand the scope of the remand proceeding beyond the Court's limited scope is improper and is barred by the Court's reaffirmation of the prohibition against retroactive ratemaking. As discussed above, the scope of the remand is very narrow:

> (1) Either consider whether "a non-cost-based POLR charge is reasonable and lawful" or "allow AEP to present evidence of its actual POLR costs," and
>
> (2) "[D]etermine whether any of the listed categories of [R.C. 4928.143] (B)(2) authorize recovery" of such charges.

Remand Decision at ¶¶ 30, 35

IEU in particular has repeatedly insisted, however, that the Commission should enlarge the scope of the Court's remand well beyond the explicit text and remand directives of the Court's opinion. According to IEU, "the Commission must complete a thorough examination and reconciliation" (Motion Requesting Commission Orders at p. 7 (May 10, 2011)) of the purported "flow-through effects on consumers' electric bills," which IEU has said include:

> the deferred revenue collection opportunity enabled by the bill increase limitations in the current ESP; delta revenue resulting from reasonable arrangements and, in effect, Universal Service Fund . . . collection; the calculation of base revenues in the current ESP application (recognizing the current ESP may remain in effect beyond December 31, 2011 in the event a new rate plan is not lawfully authorized to be effective on January 1, 2012); and, reviews of OP and CSP earnings required under Section 4928.143(F), Revised Code.

(Application for Rehearing of Industrial Energy Users-Ohio at pp. 1, 5 (May 17. 2011).) After IEU referred to the Companies' "unjust enrichment" under the 2008 ESP and defiantly argued that the Court's remand proceeding should apply beyond the eight months remaining in the initial ESP term (Motion Requesting Commission Orders at p. 4 (May 10, 2011)), AEP Ohio pointed out that the Supreme Court directly held that a ratepayer may not obtain "[r]estitution based *on the ground of unjust enrichment*... to recover [an] increase in rates charged by a public utility under an order of the Public Utilities Commission, where such order is subsequently reversed by the Supreme Court on the ground that it is unreasonable and unlawful." (AEP Ohio's Memo. Opp. IEU's Motion Requesting Commission Orders at p. 6 (May 25, 2011), quoting Keco Industries, Inc. v. Cincinnati & Suburban Bell Tel. Co. (1957), 166 Ohio St. 254, 255-56, 141 N.E.2d 465 (emphasis added)).

IEU changed its characterization of this same effort at hearing describing its theory of relief with a new moniker of "flow-through" effects. IEU sponsored the testimony of witness Joseph G. Bowser that delves into these purported flow-through effects. The OCC, too, filed the testimony of witnesses Daniel J. Duann and Mack A. Thompson that address these flow-through effects. This "flow-through" testimony, along with other testimony submitted by Mr. Bowser described below, is outside the scope of the Supreme Court's remand and contrary to the Court's holding on retroactive rulemaking, and for those reasons should be denied by the Commission.

A. **Testimony on the purported "Flow-Through Effects" of the Companies' POLR charges and of the increases to the Companies' base generation rates to recover carrying costs on 2001-2008 environmental investments is prohibited because it is outside the scope of the Ohio Supreme Court's remand.**

The scope of the hearing on remand in this proceeding is governed by the Supreme Court of Ohio's remand instructions. The Commission has acknowledged this, holding that IEU is not "preclude[d] . . . from asserting, during [these] remand proceedings . . ., that the Commission should consider any flow-through effects on customers' bills, **as may be necessary to comply with the Court's remand**." Entry on Rehearing at ¶ 9 (June 22, 2011) (emphasis added). A consideration of the purported "flow-through effects" of the POLR charges and 2001-2008 EICC rate increases, however, is not "necessary to comply with the Court's remand." The "flow-through effects" of the POLR charges and 2001-2008 EICC rate increases are beyond the scope of the remand. And, this Commission has no authority to go beyond the scope of the Ohio Supreme Court's remand. Cf. Nolan v. Nolan, 11 Ohio St.3d 1, 4, 462 N.E.2d 410 (1984) (holding that a "trial court is without authority to extend or vary the mandate given" by the appellate court).

The Commission has already once rejected IEU's effort to expand the scope of this proceeding to address a topic not remanded by the Ohio Supreme Court. IEU filed two applications for rehearing faulting the Commission for failing to suspend the Companies' post-2008 Environmental Investment Carrying Cost Rider ("post-2008 EICCR"), the mechanism through which the Companies recover their carrying costs on incremental environmental investments undertaken in 2009, 2010, and 2011. The Commission denied these applications, noting that the Companies' recovery of carrying costs for incremental environmental investments made during 2009-2011 "is not subject to attack at this point in the proceedings" because the portion of the Commission's decision allowing that cost recovery had not been appealed to the Supreme Court of Ohio. (Entry on Rehearing at 6 (June 22, 2011).)

This has not prevented IEU from submitting testimony on the Companies' recovery under its post-2008 EICCR for carrying costs on incremental environmental investments undertaken after 2008. (*See* Bowser Testimony at p. 6, lines 5-12; p. 11, lines 5-23; and p. 12, lines 1-5.) Mr. Bowser's testimony on the Companies' charges that recover carrying costs on post-2008 environmental investments through the post-2008 EICCR is irrelevant and contrary to the Commission's Entry on Rehearing filed June 22, 2011. IEU's and OCC's testimony on the purported "flow-through" effects of the Companies' POLR charges and 2001-2008 EICC rate increases is also outside the scope of the Court's remand and also should be denied.

B. Testimony on the purported "Flow-Through Effects" of the Companies' POLR charges, 2001-2008 EICC rate increases, and charges collected through the Post-2008 EICCR is prohibited because it is offered in support of a refund request that is contrary to the Ohio Supreme Court's decision.

IEU's and OCC's filed testimony on the purported "flow-through" effects of the Companies' POLR charges and charges collected through the post-2008 EICCR also must be stricken because it conflicts with the Supreme Court's position on retroactive ratemaking. As the Court held when remanding this matter to the Commission, the prohibition against retroactive ratemaking under Ohio law "also prohibits refunds." Remand Decision at ¶ 15. If a party believes that a public utility is seeking to collect an unlawful rate, it cannot wait until the rate has been collected and then sue for a refund. Instead, that party must seek a stay of the collection of the rate and "[post] a bond sufficient to protect the utility against damage." Id. at ¶¶ 17, 20 (citing Ohio Rev. Code § 4903.16). Neither OCC nor IEU took advantage of this option. A look at the arguments offered by IEU and OCC throughout this remand proceeding should be taken into consideration to highlight the ultimate goal of those parties -- to retroactively adjust previously approved rates.

IEU filed a Motion Requesting Commission Orders and two applications for rehearing, asking the Court to reduce the Companies' future cost recovery to offset its past recovery of POLR charges and 2001-2008 EICC rate increases under its current ESP. (*See* Reply of IEU to AEP Ohio's Memorandum in Opposition to IEU's Motion Requesting Commission Orders at pp. 6-7 (June 1, 2011).) Through these filings, IEU sought to obtain indirectly what it cannot obtain directly: a refund for the Companies' customers.

IEU conceded that the goal of its requested review of "flow through effects" is to refund money to the Companies' customers, asserting: "For over two years, CSP and OP have been able to demand and collect from consumers more compensation than that which could be allowed in accordance with Ohio law. This unjust enrichment must be corrected to the maximum extent permitted by law." (Motion Requesting Commission Orders at p. 4 (May 10, 2011).) OCC witness Daniel J. Duann, makes this even clearer, testifying:

> I . . . recommend that the POLR charges collected from customers from April 2009 until May 2011 be returned to customers by reducing the phase-in FAC deferral balance that is to be collected from customers starting in 2012. . . . I also recommend that the environmental carrying charges collected from customers from April 2009 up until May 2011 be returned to customers by adjusting the FAC phase-in deferral balance that is to be collected from customers starting in 2012.

(Duann Testimony at p. 4, line 22, to p. 5, line 11.) OCC witness Mack A. Thompson endorses these recommendations. (*See* Thompson Testimony at 6, lines 15-16 and n.7, and p. 38, lines 10-11, n. 51.) IEU witness Joseph G. Bowser makes the same recommendation. (*See* Bowser Testimony at p. 9, line 1, to p. 11, line 3.) Mr. Bowser similarly suggests that the regulatory assets of the Companies "that are eligible for future recovery" be adjusted downward to make up for the "unlawful" POLR charges and 2001-2008 EICC rate increases that they paid under the Companies' 2008 ESP. (Id. at p. 14, line 22, to p. 15, line 9.)

If not a refund, per se, IEU and OCC are asking that the Companies' customers receive a future credit equal to their past POLR charge and 2001-2008 EICC rate increase payments. Yet the Commission "is not statutorily authorized to order a . . . credit for[ ] charges previously collected . . . in accordance with" a rate that was approved and has since expired. Id. at 349. Whether IEU and OCC call their requested relief a refund or a credit, it is prohibited under Ohio law.

IEU witness Bowser's prefiled testimony attempts to shift the focus of IEU's efforts to secure a retroactive rate adjustment by repackaging the argument as impacting or adjusting deferred "revenues" and not "expenses." (Bowser Direct at 10.) Specifically, IEU witness Bowser states, "[t]he balance of the total authorized revenue that would have been collected during the ESP period but for the Commission's bill increase limitations was deferred for future collection." (Id.) The misinterpretation is focused on the characterization of the deferred amounts as "revenues" when in fact it was "expenses" deferred by the Commission. It appears the latest version of IEU's argument seeks to paint the deferral as a revenue because then it can argue that the amount could be repackaged as a prospective revenue change as opposed to the disallowance of incurred expenses. That argument is without merit. The Commission should see through this attempt at repackaging the same retroactive ratemaking argument, looking instead to its original decision imposing the phase-in of the rates and the establishment of accounting authority to defer the associated costs.

The Commission exercised its authority under R.C. 4928.144 to phase-in the approved rates but made clear that it was deferring expenses not revenues. (ESP Order at 21-24). The

Commission showed that this involves expenses and not revenues when justifying the carrying charge associated with the ordered phase-in that was justified "...for purposes of a phase-in approach in which **the Companies are expected to carry the fuel expenses incurred for electric service already provided to the customers**...." Emphasis added. (ESP Order at 23). The Commission was clear to state that its phase-in outcome would be consistent with the directive of Ohio Rev. Code § 4928.144 that any phase-in "shall provide for the creation of regulatory assets pursuant to generally accepted accounting principles, by authorizing the **deferral of incurred costs** equal to the amount not collected, plus carrying charges on that amount." Emphasis added. (ESP Order at 23-24).

In rebuttal testimony, AEP Ohio witness Thomas Mitchell clarified that the amounts deferred pursuant to the FAC were deferred costs and not deferred revenues. (AEP Ohio witness Mitchell Rebuttal at 3-4.) AEP Ohio witness Mitchell explains how IEU witness Bowser confuses the GAAP terminology and shows how application of the appropriate accounting standards and the Commission's decision to set up the deferral accounting authority dictate that the deferral relates to expenses and not revenues. (Id. at 4-9).

Both OCC's attempt to adjust the deferral of costs already incurred and IEU's attempt to relabel those costs as prospective revenues are invalid, and the Commission is left being asked by both Intervenors to improperly "flow through" (i.e. retroactively impose) adjustments to Commission approved rates. "[U]tility ratemaking by the Public Utilities Commission is prospective only." Lucas Cty. Commrs. v. Pub. Util. Comm 80 Ohio St.3d 344, 348, 686 N.E.2d 501 (1997). "[T]he law does not allow refunds in appeals from commission orders." Remand Decision at ¶ 16; see also., Lucas Cty. Comm'rs. 80 Ohio St.3d at 348 (holding, "[t]he General

Assembly . . . prohibit[s] customers from obtaining refunds of excessive rates that may be reversed on appeal.").

Altering the calculation of incurred and deferred FAC costs during the ESP after-the-fact so as to deny recovery of revenue that the Commission previously authorized to be collected during the period 2012 through 2018 is the epitome of retroactive ratemaking and would violate Ohio Rev. Code § 4928.144. The fact that the remedy advocated by IEU and OCC is to prospectively adjust deferred costs that have not yet been charged to the customers does not alter the unlawful nature of the suggested remedy in any way.

The focus of the retroactive ratemaking prohibition is an attempt to cure the effects of rates that have already been charged to customers. Throughout the remand process, IEU and OCC have been very clear about the basis or premise of their "unjust enrichment" theory – it is the historical POLR and environmental carrying charges rendered by AEP Ohio from 2009 through mid-2011. Prospectively curing for past rates collected and subsequently determined to be unlawful is precisely the nature of unlawful retroactive ratemaking which was reviled with force in the Supreme Court's remand decision. The Commission does not have the authority to reduce AEP Ohio's already-deferred FAC costs retroactively, and any argument that the Commission act at this point is beyond the scope of this proceeding and not authorized by law.

CONCLUSION

The Commission should re-affirm the POLR charges previously approved in this case because the record on remand together with the prior record more than adequately demonstrates that the charges are reasonable and necessary in light of the evidence presented. The Commission should re-affirm the capital carrying costs for the 2001 through 2008 incremental environmental investment approved in the case based on the authority to include such costs in an ESP under Ohio Rev. Code § 4928.143(B)(2)(b)(d) & (e).

Respectfully Submitted,

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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 Initial Merit Brief has been served upon the below-named counsel and Attorney Examiners via electronic mail this 5th day of August, 2011.

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