BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Commission Review of the Capacity Charges of Ohio Power Company and Columbus Southern Power Company	))))	Case No. 10-2929-EL-UNC

APPLICATION FOR REHEARING OF OHIO POWER COMPANY

Pursuant to Section 4903.10, Ohio Revised Code ("R.C."), and Rule 4901-1-35, Ohio Administrative Code ("O.A.C."), Ohio Power Company ("AEP Ohio" or the "Company") respectfully files this Application for Rehearing of the Commission's July 2, 2012 Opinion and Order. The Commission's July 2, 2012 Opinion and Order is unreasonable and unlawful in the following respects:

I. The Energy Credit That The Commission Adopted In The July 2 Opinion and Order Is Unreasonable And Unlawful.

A. The Commission's adoption of a $147.41/MW-day energy credit based upon Staff's static assumption of 26.1% shopping throughout the 2012-2015 period is flawed. According to Staff's own witness, the energy credit should be lower based upon the established shopping level of 30% as of April 30, 2012. And the energy credit should be even substantially lower based upon the increased levels of shopping that will occur with RPM pricing.

B. There are a host of fundamental errors in EVA's energy credit that the Commission adopted in the July 2 Opinion and Order, causing the resultant energy credit to be patently unreasonable and against the manifest weight of the evidence.

1. EVA's methodology does not withstand basic scrutiny and is largely a "black box."

2. EVA failed to calibrate the model or otherwise account for the impact of zonal rather than nodal prices.

3. EVA erred in forecasting LMP prices instead of using available forward energy prices, especially given Staff's position in the Modified ESP proceeding that lower forward energy prices should be used for the MRO test.

4. The record shows that EVA used inaccurate and understated fuel costs.

5. EVA failed to use correct heat rates to capture minimum and start time operating constraints and associated cost impacts.

6. EVA's energy credit wrongly incorporates traditional OSS margins and otherwise fails to properly reflect the impact of the Pool.

   a. The adopted energy credit erroneously reflects more than OSS margins created by "freed up" energy associated with the capacity being paid for by CRES providers.

   b. The adopted energy credit imputed a fictional market-based margin attributable to 100% of the non-shopping load and incorporated that into the energy credit to offset the charge for shopping load, which not only creates an unreasonable and unlawful subsidy, but also confiscates margin that AEP Ohio is authorized to retain through its SSO rates.

   c. The adopted energy credit unlawfully fails to reflect operation of the FERC-approved Pool in its inflated energy credit.

7. EVA's estimate of gross margins that AEP Ohio will earn in the June 2012 through May 2015 period are overstated by nearly 200%, as shown by AEP witness Meehan's alternative calculation of forecast gross margins.

8. At a minimum, the Commission should conduct an evidentiary hearing on rehearing to evaluate the accuracy of EVA's energy credit compared to actual results.

C. The Commission's adoption of an energy credit that incorporates actual costs from the 2010 test period and then imputes revenues that have no basis in actual costs creates a state compensation mechanism that is unconstitutionally confiscatory and that results in an unconstitutional taking of property without just compensation.

   1. The Commission's Order is confiscatory, unjust, and unreasonable under the "end result" standard of *Hope Natural Gas*.

2. The Commission's Order results in an unconstitutional partial taking of AEP Ohio's property without just compensation under the *Penn Central* standard.

II. It Was Unreasonable And Unlawful For The Commission To Adopt A Cost-Based State Compensation Mechanism And Then Order AEP Ohio To Only Charge CRES Providers RPM Pricing Far Below The Cost-Based $188.88/MW-Day Rate That The Commission Determined Was Just And Reasonable.

A. If the state compensation mechanism is cost-based and the Commission found AEP Ohio's cost of providing capacity to be $188.88/MW-day, then it is unreasonable and unlawful for the Commission to require AEP Ohio to charge anything other than $188.88/MW-day.

B. It was unreasonable and unlawful for the Commission to authorize AEP Ohio to collect only RPM pricing and require deferral of expenses up to $188.88/MW-day without simultaneously providing for recovery of the shortfall.

C. It is unreasonable and unlawful for the Commission to require AEP Ohio to supply capacity to CRES providers at a below-cost rate to promote artificial, uneconomic, and subsidized competition.

D. It was unreasonable and unlawful, as well as unnecessary, for the Commission to extend RPM pricing to customers that switched at a capacity price of $255/MW-day.

E. It was unreasonable and unlawful for the Commission to rely critically on the policies set forth in R.C. 4928.02 and 4928.06(A) to justify reducing CRES providers' price of capacity after the Commission found that R.C. Chapter 4928 does not apply to AEP Ohio's capacity charges to CRES providers.

III. It Was Unreasonable And Unlawful For The Commission To Fail To Address The Merits Of AEP Ohio's January 7, 2011 Application For Rehearing, Which The Commission Granted On February 2, 2011 For The Purpose Of Further Considering It, In The July 2 Opinion and Order.

A memorandum in support of this Application for Rehearing is attached.

Respectfully submitted,

//s/ Steven T. Nourse

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On behalf of Ohio Power Company

MEMORANDUM IN SUPPORT

INTRODUCTION

The Commission's July 2, 2012 Opinion and Order ("July 2 Opinion and Order") was unreasonable and unlawful in numerous respects and should be reversed and modified on rehearing. Although the Commission correctly determined that AEP Ohio is entitled to receive cost-based, not RPM-based, compensation for the capacity that it is required to supply to competitive retail electric service ("CRES") providers, the cost-based capacity charge that the Commission arrived at in its July 2 Opinion and Order is seriously and unreasonably understated. That is because the Commission adopted an unreasonable and unlawful energy credit, sponsored by Staff, that reduces the capacity charge by an unreasonable amount that cannot be supported.

As an initial matter, the Commission utterly failed, with respect to the energy credit, to meaningfully set forth <u>any</u> reasons or facts upon which its adoption of the energy credit is based, in derogation of its responsibilities under R.C. 4903.09. Instead, the Commission merely characterized the myriad flaws in the energy credit, and AEP Ohio's extensive cross examination, testimony, and evidence correcting those flaws, as merely amounting to "a fundamental difference in methodology" and went on to find that Staff's approach was "proper" and "produces an energy credit that will ensure that AEP-Ohio does not over recover its capacity costs." July 2 Opinion and Order at 36.

This treatment of the numerous flaws and issues present in the Staff's energy credit was insufficient as a matter of law and did not address any of the following significant problems with the Staff's approach: (1) The adopted energy credit is inappropriately and unreasonably based upon a static shopping assumption of 26.1% shopping throughout the 2012-2015 period, despite the fact that shopping presently exceeds, and will continue to increasingly exceed, that percentage in the future. (2) The adopted energy credit is patently unreasonable because it is a "black box" incapable of meaningful evaluation, the model used to calculate it was uncalibrated and failed to account for the impact of zonal prices, it unreasonably uses overstated forecasted LMP prices instead of available forward energy prices, it incorporates inaccurate and understated fuel costs, it uses incorrect heat rates, and it wrongly incorporates traditional OSS margins and fails to properly reflect the impact of the AEP System Interconnection Agreement ("Pool"). (3) The adopted energy credit creates a state compensation mechanism that is unconstitutionally confiscatory and that results in an unconstitutional taking of property without just compensation.

Moreover, the Commission's decision to adopt a cost-based state mechanism and then nonetheless order the Company to charge CRES providers RPM pricing was unreasonable and unlawful. First, if the state compensation mechanism is to be cost-based, as the Commission determined, then the Commission lacks authority to order the Company to charge a non-cost-based rate. Second, the Commission's decision is unreasonable and unlawful for ordering the Company to defer the difference between the $188.88/MW-day cost-based rate and the RPM without simultaneously providing a mechanism for the Company to recover that shortfall. Although this case and Case No. 11-346-EL-SSO address interrelated issues, the Commission may not assign an issue that must be decided in this proceeding to another proceeding with an independent case schedule and rehearing and appeal processes. Moreover, the Commission's decision unreasonably and unlawfully enables and promotes artificial, uneconomic, and subsidized competition at the Company's expense. The decision also unreasonably and unnecessarily extends RPM pricing to customers who shopped based on capacity priced at $255/MW-day, depriving the Company of its contract-based expectations. And the

Commission's justification for its decision to order the Company to recover only RPM pricing – state policies set forth in R.C. 4928.02 and 4928.06(A) – was unreasonable and unlawful as well, because the Commission expressly determined in its July 2 Opinion and Order that R.C. 4928 is *inapplicable* to AEP Ohio's capacity service.

Finally, the Commission's July 2 Opinion and Order unreasonably and unlawfully failed to address the merits of the Company's January 7, 2011 application for rehearing, which the Commission granted in February 2011 for further consideration but never addressed on its merits. These significant errors, individually and in the aggregate, compel the Commission to grant rehearing and correction.

BACKGROUND

The factual and procedural history of this proceeding is lengthy and need not be repeated in its entirety here, however, the following background is pertinent to the issues raised in the Company's application for rehearing. Under the Fixed Resource Requirement ("FRR") provisions in the PJM Interconnection, L.L.C. (PJM) Reliability Assurance Agreement (RAA), AEP Ohio is obligated to provide capacity resources sufficient to support all shopping load in its service territory through May 31, 2015. The initial default charge that AEP Ohio collected for providing this essential service was based on PJM's RPM capacity auction prices. AEP Ohio realized in 2010 that RPM pricing established for the 2012-2015 period would not permit the Company to recover anything close to the full amount of its costs of providing capacity to support shopping.

Accordingly, in November 2010, consistent with the provisions in the RAA and its rights established by the Federal Power Act (FPA), AEP Ohio proposed to implement an existing clause within the RAA to change the basis of compensation for use of its capacity by CRES providers to an AEP Ohio cost-based method.[1] This application was intended to remedy the situation where CRES providers were receiving a subsidy from AEP Ohio for their use of the Company's capacity due to the use of RPM auction prices.

In response to AEP Ohio's November 2010 application to the FERC, the Commission represented to FERC that as of December 8, 2010, it was "adopt[ing] as the state compensation mechanism for the Companies the current capacity charges established by the three-year capacity auction conducted by PJM," which is the PJM RPM auction price.[2] *See* Case No. 10-2929-EL-UNC, Entry at 2 (Dec. 8, 2010). AEP Ohio applied for rehearing of the Commission's December 8, 2010 Entry on January 7, 2011. In its application for rehearing, AEP Ohio argued, *inter alia*, that:

- The Commission's Entry establishing an interim wholesale capacity rate was unreasonable and unlawful because the Commission is a creature of statute and lacks jurisdiction under both Federal and Ohio law to issue an order affecting wholesale rates regulated by the Federal Energy Regulatory Commission.

- The Entry was issued in a manner that denied AEP Ohio due process and violated statutes within Title 49 of the Revised Code, including Sections 4903.09, 4905.26, and 4909.16, Revised Code.

- The Entry directly conflicts with, and is preempted by, federal law and therefore should be reversed and modified.

(*See* Jan. 7, 2011 App. for Rehearing.) On February 2, 2011, the Commission granted AEP Ohio's application for rehearing of the December 8, 2010 Entry, finding that "sufficient reason has been set forth by AEP Ohio to warrant further consideration of the matters specified in the

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[1] On November 2, 2010, AEP Ohio filed an application with the FERC in FERC Docket No. ER11-1995-000. On November 24, 2010, at the direction of FERC, AEP Ohio refiled its application in FERC Docket No. ER11-2183-000.

[2] At the time of the Commission's December 8, 2010 Entry, CRES providers were paying AEP Ohio $220/MW-day as the then-current RPM price.

application for rehearing." Case No. 10-2929-EL-UNC, Entry on Rehearing at 2 (Feb. 2, 2011). That rehearing request remains pending.

In an August 11, 2011 Entry, the Commission established an initial procedural schedule for the hearing necessary to establish an evidentiary record on a state compensation mechanism. A number of parties intervened in this proceeding, and many have taken the position that the Commission should require AEP Ohio to charge only the uncompensatory RPM-based price to CRES providers for the capacity it supplies them. The evidentiary hearing commenced on April 17, 2012, and concluded on May 15, 2012. The parties filed initial post-hearing briefs on May 23, 2012, and reply briefs on May 30, 2012. The Commission issued its Opinion and Order deciding the merits of the case on July 2, 2012.

ARGUMENT

I. The Energy Credit That The Commission Adopted In The July 2 Opinion and Order Is Unreasonable And Unlawful.

The Commission's adoption of Staff's proposed energy credit without meaningful explanation or analysis violates R.C. 4903.09. Moreover, the adopted energy credit is seriously flawed in several respects: It is inappropriately and unreasonably based upon a static shopping assumption of 26.1% shopping throughout the 2012-2015 period, despite the fact that shopping presently exceeds, and will continue to increasingly exceed, that percentage in the future; it is a "black box" incapable of meaningful evaluation, the model used to calculate it was uncalibrated and failed to account for the impact of zonal prices, it unreasonably uses overstated forecasted LMP prices instead of available forward energy prices, it incorporates inaccurate and understated fuel costs, it uses incorrect heat rates, and it wrongly incorporates traditional OSS margins and fails to properly reflect the impact of the Pool; and it creates a state compensation mechanism that is unconstitutionally confiscatory and that results in an unconstitutional taking of property without just compensation. For all of these reasons, the energy credit that the Commission adopted in the July 2, 2012 Opinion and Order is unreasonable and unlawful and should be corrected on rehearing.

A. The Commission's adoption of a $147.41/MW-day energy credit based upon Staff's static assumption of 26.1% shopping throughout the 2012-2015 period is flawed. According to Staff's own witness, the energy credit should be lower based upon the established shopping level of 30% as of April 30, 2012. And the energy credit should be even substantially lower based upon the increased levels of shopping that will occur with RPM pricing.

EVA's method for calculating the energy credit offset to embedded costs relies upon, as a principal factor, the level of shopping that exists during the period that the energy credit is being applied. In this case, that period is the term of the proposed ESP. EVA assumed a shopping level of 26.1%, which was the level of shopping as of March 31, 2012, to establish its energy credit offset. (Staff Ex. 105 at 19; AEP Ohio Ex. 142 at 21.) Since then, the level of shopping has increased substantially. Company witness Allen testified on rebuttal that, as of April 30, 2012, the level of shopped load had increased to 30.19%. (AEP Ohio Ex. 142 at 21.) Moreover, the record and the Commission's findings show that the level of shopping will increase significantly based on RPM pricing. Thus, the energy credit needs to be reduced accordingly if EVA's energy credit methodology is to be retained on rehearing.

There is no question that under EVA's energy credit, if shopping goes up above 26%, CRES providers would pay a higher net capacity charge. (Tr. X at 2190-91.) Ms. Medine's direct testimony was very explicit about this relationship under EVA's energy credit model:

> An increase in the switching assumption will tend to decrease the energy credit while a decrease in the switching assumption will tend to increase the energy credit.

(Staff Ex. 105 at 19.) Ms. Medine testified that EVA assumed 26% shopping throughout the 2012-2015 period, for purposes of calculating the energy credit. (Tr. X at 2189.) She confirmed that the 26% static shopping assumption was "the most conservative approach" that could be used and Ms. Medine has no knowledge or expertise about projected shopping levels. (*Id.* at 2194.) Use of a 26% shopping assumption going forward in the context of RPM pricing is absurd and has no basis in the record.

Indeed, the Commission itself explicitly recognizes and manifestly intends that the adopted RPM pricing "will stimulate true competition among suppliers in AEP Ohio's service territory." July 2 Opinion and Order at 23. The Commission also made a specific finding that RPM pricing would yield "an unusually low return on equity of 7.6 percent in 2012 and 2.4 percent in 2013, with a loss of $240 million between 2012 and 2013." *Id.*) And AEP Ohio witness Allen projected financial harm based on shopping level assumptions of 65% for residential, 80% for commercial and 90% for industrial customers (excluding a single large customer) by the end of 2012. (AEP Ohio Ex. 104 at 4-5.) Mr. Allen's workpapers, admitted into the record as evidence, also support the projected shopping level under RPM pricing of 71.3%. (*See also* RESA Ex. 102 at 3 ((16,942 GWh + 17,490 Gwh)/(48,261 GWh)=71.3%).)

Thus, the Commission's observations about the anticipated financial harm of RPM pricing is supported by testimony of record that incorporates elevated shopping levels based on RPM pricing. That is the same record evidence that supports the Commission's ultimate finding that adopting RPM pricing "will stimulate true competition among suppliers in AEP Ohio's service territory." July 2 Opinion and Order at 23. As it stands now, there is an inconsistency between the Commission's recognition that RPM pricing will cause shopping to increase (indeed that was the premise for adopting RPM pricing) and the Commission's adoption of EVA's energy credit methodology without an adjustment for higher shopping levels, which adjustment EVA itself testified would need to be done.

As the testimony of AEP Ohio witness Nelson demonstrated, the impact of increased levels of shopping (above the assumed 26.1% level) on the EVA-proposed energy credit and, thus, on the net embedded cost capacity price is substantial. With an increase in the shopping level from 26% to 50%, the Staff's energy credit declines by $27/MW-day (from $152 to $125/MW-day); with an increase to a 75% shopping level, the energy credit declines by $56/MW-day (from $152 to $96/MW-day); and with an increase to a 100% shopping level, the energy credit is reduced by $85/MW-day (from $152 to $67/MW-day). (AEP Ohio Ex. 143 at 7.) Even at the 30.19% level that had already been achieved by April 30 – well before the impact of the Commission's July 2, 2012 decision to reduce capacity pricing to prevailing RPM prices – the erroneous impact on the Staff's energy credit of that level of increased shopping, from 26.1%, is significant.

Specifically, there is a direct impact on the net capacity price of an increased shopping level under EVA's approach (*i.e.*, a decreased energy credit used to offset the demand charge is an increase in the net capacity cost). Accordingly, at the 50% shopping level the net capacity cost increases from $188.88/MW-day to $215.88/MW-day; at a 75% shopping level, the net capacity cost increases to $245.13/MW-day; and at 100% shopping, the net capacity cost, under the Staff's methodology, increases to $274. (AEP Ohio Ex. 143 at 7.) Even the approximately 4% increase in shopping that occurred from March 31 (26.1%) to April 30 (30.19%), would correspond to a decreased energy credit, under the Staff's methodology, of approximately $4.50, and an increase in the net capacity cost of the same amount (resulting in a net capacity cost of $193.30), which is still a significant increase from the $188.88 figure that is based on clearly erroneous assumption of 26.1% shopping. Indeed, using the data included in AEP Ohio witness

Nelson's table on page 7 of AEP Ohio Ex. 143, for every 1% increase in shopping, Staff's energy credit decreases by $1.15/MW-day (($67/MW-day - $152/MW-day) / (100%-26%)).

The impact of the level of shopping on the energy credit the Commission has adopted in its July 2 Opinion and Order thus is a significant variable that should, at a minimum, account for actual shopping levels as of date of the Commission's decision. Moreover, the evidence of record and the Commission's own findings indicate that shopping levels will substantially increase under the RPM pricing regime. The Commission's energy credit, however, fails to reflect these changes in shopping. This failure unreasonably decreases the amount of capacity revenue that the Company will receive. On rehearing, the energy credit based on EVA's methodology should be decreased substantially in order to correctly reflect realistic shopping levels during the term of the ESP.

B. There are a host of fundamental errors in EVA's energy credit that the Commission adopted in the July 2 Opinion and Order, causing the resultant energy credit to be patently unreasonable and against the manifest weight of the evidence.

In its Opinion and Order, the Commission dismisses AEP Ohio's legitimate objections to the energy credit calculated by Staff as merely a disagreement over two competing methodologies or approaches, saying:

> Upon review of all of the testimony, the Commission finds that it is clear that the dispute between AEP-Ohio and Staff *amounts to a fundamental difference in methodology* in everything from the calculation of gross energy margins to accounting for operation of the pool agreement. AEP-Ohio claims that Staff's inputs to the AURORAxmp model result in an overstated energy credit, while Staff argues that the Company's energy credit is far too low. *Essentially, AEP-Ohio and Staff have simply offered two quite different approaches in their attempt to forecast market prices for energy*.

July 2 Opinion and Order at 36 (emphasis added).

If Staff's methodology for calculating the energy credit was, in fact, a defensible approach using defensible inputs, which just happened to result in a different numerical outcome than the Company's equally defensible approach, then the Commission could properly select either approach to determine an appropriate energy credit, much like courts must sometimes choose between alternative and equally legitimate formulas to calculating prevailing parties' damages or attorneys' fees. Indeed, the Ohio Supreme Court has previously deferred to the Commission's selection of one among multiple *defensible* methodologies or formulas. In *Ohio Edison Co. v. Pub. Util. Comm.*, 173 Ohio St. 478, 184 N.E.2d 70 (1962), for example, at issue was the proper formula to use for the allocation of property and expenses, and the Supreme Court stated:

> This question as to the proper method of allocation is a controversial problem. *** No one formula is proper for all cases. ***
> The statutes nowhere specify a formula for allocation. *Hence, as long as the method chosen by the commission is not unreasonable, this court should not disturb it. Thus, the question is not whether the method proposed by Ohio Edison is the best method but whether the method of allocation used in this case by the commission is reasonable.*

Id. at 483-84 (emphasis added).

There may in fact be more than one way to calculate an energy credit, if the Commission insists on applying an energy credit here to reduce the Company's cost of capacity.[3] There may even be more than one *reasonable* approach to calculating an energy credit. But the problem here is that the Commission did not simply make a permissible choice among reasonable

[3] Although the Company did not recommend, in the first instance, that there be an energy credit offset to the cost-based capacity price, Company witness Pearce made a recommendation for how such an energy credit could be devised, and the methodology for calculating the energy credit engendered perhaps the most debate at the hearing. (AEP Ohio Ex. 102 at 13-20. *See generally* Tr. II at 253-534 (Company witness Pearce); Tr. IX at 1813-2102 (Staff witnesses Harter and Smith); Tr. X at 2123-2252 (Staff witness Medine); Tr. XI at 2329-2539 (Company witness Allen); Tr. XII at 2612-2278 (Company witnesses Nelson and Meehan).)

approaches, as it did in the *Ohio Edison* case quoted above. Instead, it unreasonably chose to adopt Staff's invalid approach, which resulted in a grossly overstated energy credit (and, in turn, a grossly understated capacity cost). As we all know from very recent history, the Ohio Supreme Court will not hesitate to reverse the Commission's orders in circumstances where the Court doubts the reliability or reasonableness of a methodology or model that is applied to derive a given result. *See In re Application of Columbus Southern Power Co.*, 128 Ohio St.3d 512, 2011-Ohio-1788, 947 N.E.2d 655, ¶ 25-26 (rejecting the Black-Scholes model as a formula supporting AEP's POLR charge).

The Commission should grant the Company's application for rehearing to address the fundamental deficiencies in Staff's approach to deriving its energy credit in order to avoid facing another reversal and remand from the Supreme Court, because these deficiencies are simply too pervasive and troubling for a reviewing court to ignore. *See, e.g., Tongren v. Pub. Util. Comm.*, 85 Ohio St.3d 87, 89, 1999-Ohio-206 ("'The General Assembly never intended this court to perform the same functions and duties as the Public Utilities Commission but it did intend that this court should determine whether the facts found by the commission lawfully and reasonably justified the conclusions reached by the commission *** and whether the evidence presented to the commission as found in the record supported the essential findings of fact so made by the commission.'"), *quoting Commercial Motor Freight, Inc. v. Pub. Util. Comm.*, 156 Ohio St. 360, 363-64, 102 N.E.2d 842 (1951). For the reasons that follow, Staff's methodology for calculating its energy credit was fundamentally flawed in multiple respects beyond the inaccurate shopping assumption already described above. For the following additional reasons, in adopting Staff's flawed approach, the Commission abdicated its statutory duty to make reasonable findings and conclusions concerning the energy credit that are supported by the weight of the evidence. R.C. 4903.09.

1. EVA's methodology does not withstand basic scrutiny and is largely a "black box."

In its initial post-hearing brief (at 43), AEP Ohio explained the straightforward template for an energy credit that Dr. Pearce presented in Exhibits KDP-1 through KDP-4 of his Direct Testimony. (AEP Ohio Ex. 102.) Dr. Pearce's calculation of the energy credit relies upon a fair and reasonable proxy for the energy revenue that CSP and OPCo (and, thus, the merged entity) could have obtained by selling equivalent generation into the market. (*Id.* at 15.) The cost basis for the energy under Dr. Pearce's approach is computed using the same formula rates described for the capacity rate calculation that he sponsored, providing for a consistent and straightforward solution to deriving an energy credit. (*Id.* at 16.) As AEP Ohio explained in its initial post-hearing brief:

> One of the principal benefits of the energy credit approach that Dr. Pearce recommends, if one is to be used, is that *it relies upon the same cost data that underlies the capacity cost rate*. In addition, because it is updated annually to reflect the most current FERC Form 1 data, the cost data will be very closely aligned with the period during which the capacity rate and energy credit are applied to establish the applicable price for capacity.

(AEP Ohio Initial Br. at 45 (emphasis added).) Given that the Commission expressly found that Dr. Pearce's formula rate template is an "appropriate starting point for determination of its capacity costs," July 2 Opinion and Order at 33, the Commission's decision to then part ways from Dr. Pearce's template-based approach to calculating the energy credit becomes all the more puzzling.

Relying on the testimony and exhibits presented at the hearing, AEP Ohio went on in its post-hearing brief to contrast Dr. Pearce's straightforward approach with the flawed approach utilized by Staff. First, as the Company noted in its post-hearing brief (at 45), the cross-examination of the Staff/EVA witness (Harter) who sponsored Staff's energy credit revealed a number of errors in the implementation of, and the results produced by, Staff's energy credit methodology. These *acknowledged* errors required Staff to quickly request permission from the Commission to present supplemental testimony from a brand-new Staff/EVA witness (Medine) to try to correct those errors and bolster the methodology and energy credit that Mr. Harter had developed. Staff resorted to filing an expedited motion for additional time in the procedural schedule of the hearing to try to correct what Staff itself described as "*significant, inadvertent errors in estimating the energy credits* presented in Staff's testimony submitted by Ryan T. Harter." (Staff's May 1, 2012 Expedited Motion at 2) (emphasis added.) The schedule that the Commission entered in granting Staff's expedited request left the Company just three business days between the supplemental "clean up" testimony of Staff witness Medine and the due date for the Company's rebuttal testimony. (May 3, 2012 Entry at 3.) In the Company's rebuttal testimony, Mr. Allen described how the errors by Staff's energy credit witnesses resulted in multiple proposed energy credit figures being proposed at various times over the course of these proceedings:

> During the course of the hearing Staff witnesses presented three different versions of their calculation of an energy credit to apply in determining an appropriate capacity charge rate as well as three different sets of work papers. The initial calculation was revised twice to address errors that were identified prior to and during the hearing.

(AEP Ohio Ex. 142 at 3-4.)

Notably, in its July 2 Opinion and Order adopting Staff's energy credit, the Commission fails to mention the troubling procedural issues occasioned by the "significant, inadvertent errors" committed by the witness who originally sponsored Staff's energy credit. These errors and the rushed "correction" that followed certainly called into question the reliability of the methodology that the Commission ultimately adopted. But even putting aside the procedural irregularities associated with Staff's original and supplemental energy credit witnesses, AEP Ohio demonstrated that Ms. Medine only partially, and superficially, corrected the errors in the calculations that Mr. Harter initially sponsored.

As a threshold matter, the Commission should grant rehearing on the energy credit issue because EVA's modeling approach cannot be meaningfully evaluated or tested by others, due to the "black box" nature of EVA's methodology. For example, while both Staff witnesses testified that modeling is only as good as the inputs, and that bad data inputted into the model results in inaccurate results coming out of the model (Tr. IX at 1851; Tr. X at 2244), Mr. Harter testified that all of the data used in the model was either off-the-shelf from the software developer's default database or developed by others at EVA besides Mr. Harter, so that he could not answer questions about it. (Tr. IX at 1865.) He was therefore unable to testify about the vintage of the data used in the model (*id.* at 1873-74); the coal forecast data (which was handled by a different team at EVA) (*id.* at 1844); or the reserve margin that was used in the model. (*Id.* at 1872.) Harter and Medine could not even agree on whether heat rate inputs were or were not customized as part of the Aurora modeling. (Tr. X at 2151, 2158-59.)

AEP Ohio witness Meehan, a Senior Vice President at NERA with more than thirty years of experience in the field, reviewed Harter and Medine's testimony and modeling results and concluded that "[t]he approach used by EVA is impossible to verify as it is produced by a 'black box approach' that cannot be examined for errors." (AEP Ohio Ex. 144 at 6.) Mr. Meehan provided compelling testimony in support of this conclusion, none of which is addressed by the Commission in its July 2 Opinion and Order. Specifically, Mr. Meehan described some of the missing information that made it impossible to assess the critical inputs into the Aurora model utilized by Staff to calculate the energy credit, saying:

> First, *no data has been provided on the Aurora model inputs*. What units are in and are out, what zones are they in, what is the load by zone, what is the load shape by zone, what units are must run, how is unit commitment done in each zone, what transmission links are modeled, what are the heat rates for all modeled units, what are the fuel costs, what are the emission characteristics and many more data items are critical inputs and choices. *These are all necessary inputs that EVA would have had to review and decide on and no information is provided in the EVA work papers regarding them*. Second, the way in which Aurora takes market price data and AEP unit data is neither described nor shown. Complete data would be appropriate, but not even an example for an hour or month is provided. Third, a limited set of data is provided for AEP Ohio units. But it is missing important detail. Monthly gross revenues and cost are not provided and variable O&M assumptions are not provided. *The work papers are completely unsuitable to assess the analysis and only useful in that even this limited set shows errors that demonstrate that EVA has grossly overstated gross margins for AEP Ohio units*.

(*Id.* at 13-14) (emphasis added.) Next, Mr. Meehan went on to testify why these missing pieces resulted in an unverifiable "black box":

> **Q. CAN THE MODEL AND DATA USED BY EVA BE REASONABLY VERIFIED?**
>
> A. No, *the model and data are essentially a black box approach. EVA has not supplied a complete set of model inputs or a description of its workings and there is no testimony offered as to the logical structure of the model.* Models like Aurora are general and provide the user with many modeling options. My experience and expectation as a witness who on numerous occasions has testified to production cost model applications has been that I would describe and be available for cross examination on how the model worked and what options I had selected, would provide a complete data set and be available for cross examination on the data, provide a User's Manual, and describe and be available for cross examination on calibration efforts. *While certain information may require a confidentiality agreement, it would be made available so that the model and data were not a black box.* EVA has only provided some of the data it has used for AEP Ohio

> units. It has described but not provided the data from the firm's FUELCAST data set or any detail regarding the Aurora data customized by EVA. There is simply no way to examine the reasonableness of the analysis or assumptions used to develop the market prices other than to conduct a parallel analysis. *There may well be numerous errors or inappropriate uses of the model, but that cannot be seen or tested with the information provided*.

(*Id.* at 15-16) (emphasis added.)

Mr. Meehan also testified that Staff witness Medine's supplemental "clarifications" to Mr. Harter's earlier, admittedly erroneous testimony provided precious little in the way of new information, which did nothing to open and unpack Staff's model from its inscrutable black box:

> Ms. Medine notes several things. First, she states that EVA has been fine tuning the model for 6 months. Second she states that EVA has populated the model with every U.S. electric power generating unit. Third she states that EVA incorporated its view of plant additions and retirements. Fourth she states that EVA applied proper load characteristics for each energy market. Fifth she states that EVA incorporated its own delivered fuel price forecast by plant and its own emission allowance forecasts. *Virtually no detail is supplied as to any of these items*. *** No data for any non-AEP Ohio plant is provided, no description of how the various sources are combined is included, and no description of any quality control procedures is given. *Despite this attempt to add clarity, no useful information to review or judge what EVA's individual view of coal price forecasts is available. It is still a black box*. She concludes that, "Many of the individual pieces of information are used for model input validation and/or aggregated to levels that are congruent with the modeling structure." Yet she provides not a single example of validating one piece of fuel cost data for any non-AEP Ohio unit nor any description of the "modeling structure." She then testifies that she uses "EVA's quarterly natural gas price forecast derived from analyzing gas well production data for each U.S. natural gas play in combination with EVA's assessment of future natural gas demand." *But no data are provided. All we have is a single proprietary natural gas forecast that can't be examined or tested. Despite her alleged clarifications the inputs remain a black box.*

(*Id.* at 20-21 (emphasis added).)

Given these strongly-worded critiques of Staff's "black box" approach, one would expect that Staff would have cross-examined Mr. Meehan on these issues at the hearing, in an attempt to rehabilitate EVA's approach and demonstrate that its modeling of an energy credit was indeed supported by reliable and verifiable inputs. But when Staff cross-examined Mr. Meehan, it largely avoided the topic. Staff asked about the circumstances of Meehan's engagement, and about AEP's relationship with Meehan's employer, NERA. (Tr. XII at 2754-56.) Staff asked if Mr. Meehan could explain the difference between forward price curves and forecasts, and Mr. Meehan reiterated that forward-market prices are the best forecasts of future market prices (another flaw in Staff's approach discussed separately, *infra*). (*Id.* at 2756-58.) When asked by Staff whether the proprietary nature of certain model inputs makes it "difficult to fully examine and validate that information," Mr. Meehan *disagreed*, testifying that the proprietary nature of certain model inputs (which are provided in workpapers) should not result in an unverifiable process like the one undertaken by EVA. (*Id.* at 2760.) Staff cross-examined Mr. Meehan about some other issues, including emission allowances, heat rate curves, operating costs, and coal prices, but Staff never directly challenged Mr. Meehan on the fundamental criticisms that he lodged against Staff's unverifiable, "black box" approach. (*Id.* at 2761-76.)

In its post-hearing reply brief, Staff attempted to do so (at 17), asserting that "EVA's methodology is not a black box model," but Staff justified this conclusory assertion with irrelevant points that do not address Mr. Meehan's fundamental criticisms. For example, in support of its conclusion that EVA's methodology was not a "black box," Staff asserted in its reply brief (at 17) that "Mr. Harter and Ms. Medine worked together as a team in gathering the input data" – an assertion that does nothing to rebut Mr. Meehan's critique that key inputs were not shared with AEP Ohio or otherwise verifiable. In the same paragraph, Staff asserted that Ms.

Medine "is an expert fuel analyst" and that "EVA properly calibrated the model." Again, however, these assertions do not address Mr. Meehan's point that critical inputs were not shared and remain unverifiable.

The legitimate criticisms that AEP Ohio witness Meehan lodged against Staff's "black box" approach to calculating an energy credit were thus essentially unrebutted by Staff at hearing and on brief; nor were these criticisms addressed by the Commission in its July 2 Opinion and Order. The Commission should grant the Company's Application for Rehearing to address the fundamental concerns that Mr. Meehan raised in his testimony regarding Staff's "black box" approach to calculating a grossly overstated energy credit. Because the Commission agreed that the Company's formula rate template was "an appropriate starting point for determination of its capacity costs," July 2 Opinion and Order at 33, but then applied Staff's grossly overstated energy credit (instead of the energy credit as calculated by Dr. Pearce) to reduce the capacity charge by such a significant amount, these fundamental criticisms of EVA's approach should not have been swept under the rug, as they have been to date. EVA's unverifiable modeling approach will not survive the scrutiny of a reviewing court, particularly given the Ohio Supreme Court's recent decision in *Columbus Southern Power*, where the Court sent a clear message that models or formulas proposed by parties to Commission proceedings, if adopted by the Commission, must accurately and verifiably provide adequate record support for the Commission's conclusions. 2011-Ohio-1788 at ¶ 25-26.

2. EVA failed to calibrate the model or otherwise account for the impact of zonal rather than nodal prices.

Another critical failing related to the Staff/EVA Aurora model used to support the energy credit relates to calibration. As Mr. Meehan explained in his testimony, calibration of any forecasting model is essential to ensure accuracy – it is the "most basic step" in any modeling analysis, and one that Staff's witnesses admittedly failed to perform here:

> *The most basic step in any large scale production cost model analysis is to calibrate the results of the model that will be used to a known measure. That does not appear to have been done by EVA.* For example, one would compare the forecast of market prices that the model and data set are producing on and off peak to available forward market data at the AEP/Dayton hub *** [.] If one could determine that the model and data were consistently overstating prices by say 5%, the model results could be reduced by that amount. *** Alternatively, one could do a backcast with the model and see how well the model reproduces prices at the AEP generation hub. This is called a benchmark and is extremely time consuming. Mr. Harter has not discussed these and to my understanding has testified that he has only made two runs of the model for this case, which tends to confirm that he did not develop a calibration or benchmark in the context of the analysis being performed in this case. Ms. Medine also does not mention the results of any such effort in her written testimony. *** Without calibrating the results and knowing whether they accurately reflect reality, it is inappropriate to use model results. *The failure to perform and describe the results of any type of calibration exercise reinforces the unsuitability of the methodology used by EVA.*

(AEP Ohio Ex. 144 at 10-11) (emphasis added; internal citations to the record omitted.) As Mr. Meehan went on to explain, this failure to undertake a meaningful calibration exercise was more than just a "process" mistake. He testified that, had an appropriate calibration exercise been performed, he is confident that it would have revealed significant impacts on the gross margin calculated in EVA's final run, to which Ms. Medine testified – impacts on the order of "well over 20%." (AEP Ohio Ex. 144 at 12.)

> This means that even if EVA were to have all AEP Ohio unit operating costs correct, it would be overstating margins by at least 20%. As I will discuss below EVA does not have all such costs correct, which leads to an even greater overstatement of energy margins. *The overriding point with respect to methodology is that a calibration effort, if properly done and extended to consider zonal and nodal price differences, could have possibly substituted in part for the inability to validate all input assumptions.*

> *However, no such evidence of any such effort has been provided and no calibration factor has been used.*

(*Id.* at 12-13) (emphasis added.)

Mr. Meehan confirmed multiple times during cross-examination that the failure to calibrate the model outputs against actual market results was one of his most significant criticisms of the Staff/EVA approach to calculate an energy credit. (Tr. XII at 2706, 2716.) He also confirmed on re-direct that if the administratively determined energy credit was based on a formula approach such as the one Dr. Pearce conducted on behalf of the company, based on actual embedded costs, the results "should already be calibrated." (*Id.* at 2777-78.) In other words, as he testified, calibration is "inherent" in the use of either forward prices or actual embedded costs. (*Id.* at 2718.) Yet again, Staff avoided the topic of calibration in its cross-examination of Mr. Meehan, did not redirect Ms. Medine on the topic, and the Commission likewise avoided the topic in its July 2 Opinion and Order.

In its post-hearing reply brief, Staff asserted that "EVA properly calibrated the model through running the model 'hot' using updated forecasts and pricing information, and a sensitivity test." (Staff Br. at 17, *citing* Tr. X at 2209-2211.) But this citation by Staff was misleading, because in the very same pages of the transcript cited by Staff in its post-hearing reply brief, Ms. Medine confirmed that the model "*was not recalibrated*." (Tr. X at 2210-2211 (emphasis added).) Moreover, in the same section of the transcript cited by Staff, Ms. Medine tried to rely on another engagement for the government (which she testified she was "not allowed" to discuss) as the source of other model runs that were used to "make some changes." (*Id.* at 2209-2210.) When asked later if "there were any results of the first run model that was presented to the Commission *** that caused you to want to go back and calibrate or tweak any of the data or run it again," Ms. Medine answered simply "no." (*Id.* at 2163.) She deferred to

Mr. Harter as the "best person to ask about that." (*Id.* at 2164.) The claim that EVA properly calibrated the model is simply not credible and distorts the record established in this proceeding. EVA did not present a single shred of evidence to show that the model had been calibrated at all for the projection of LMPs in this case, let alone that the calibration was proper or sufficient. The reality is that EVA's one full-time modeler (Mr. Harter) simply did not have the time to properly calibrate the model (due to EVA's late engagement by Staff for this case) and thus took unacceptable short-cuts. In sum, as the Company set forth in its post-hearing reply brief, the claim that EVA sufficiently calibrated the model that was used to calculate Staff's energy credit must be rejected for the following reasons:

- Staff did not present any quantitative evidence comparing EVA's model results to either historical LMPs or forward prices.

- In attempting to present EVA's calibration efforts in the best possible light, Staff, as described above, resorted to mischaracterizing Ms. Medine's testimony regarding whether (or not) any true calibration took place.

- The LMP's produced by EVA's AURORAxmp model are 8% above current forward prices at the AEP Dayton hub.

- An 8% overstatement in market prices will overstate gross margins by well over 20%, all else equal, thus reflecting an inadequate calibration.

- Adequate calibration is impossible, as EVA only produced zonal prices. Ms. Medine testified that this was fine as there was no intra zonal congestion, but Mr. Meehan provided data showing that, in fact, there was significant intra zonal congestion and that the use of zonal prices is evidence of inadequate calibration.

(AEP Ohio Ex. 144 at 24-26.)

Courts have long recognized the critical necessity of properly calibrating any model that is used to support an adjudicative determination. Only last year, for example, the United States District Court for the Eastern District of California, in a case regarding alleged exposure to contaminants migrating from a manufacturing site, noted that "it is undisputable that calibration is a 'critical' and 'valuable' step that ensures that model simulation matches the field observation to a reasonable degree." *Abarca v. Franklin County Water Dist.*, 761 F.Supp.2d 1007, 1060 (E.D. Cal. 2011). The *Abarca* court further noted that the importance of calibrating model results to actual data "is not limited to the field of groundwater modeling" and that appellate courts "*throughout the United States have emphasized calibrating/harmonizing model predictions with actual data to ensure reliability*." *Id.* at n. 55 (emphasis added), *citing Eleven Line, Inc. v. North Texas State Soccer Assn., Inc.*, 213 F.3d 198, 206-8 (5th Cir. 2000) (antitrust context); *Inland Empire Public Lands Council v. Schultz*, 992 F.2d 977, 982 (9th Cir. 1993) (noting that agency conducted "extensive field investigations to calibrate and verify its models."); *Sterling v. Velsicol Chem. Corp.*, 855 F.2d 1188, 1199 (6th Cir. 1988) ("The plaintiffs carefully devised, calibrated, and tested their model, based upon physical data generated by Velsicol's own consultants, to determine the physical and chemical characteristics beneath the landfill."); *Ohio v. United States Environmental Protection Agency*, 784 F.2d 224, 226 (6th Cir. 1986), reaff'd, 798 F.2d 880, 881 (6th Cir. 1986) (holding that the EPA acted arbitrarily in using a model to set emission limits 'without adequately validating, monitoring, or testing its reliability or its trustworthiness in forecasting pollution […]"); *Boucher v. U.S. Suzuki Motor Corp.*, 73 F.3d 18 (2nd Cir. 1996) (excluding expert testimony under Rule 702). As the *Abarca* court explained, "[i]n each of these cases, the Court has recognized the impact of calibration on the model integrity." *Abarca*, 761 F.Supp.2d at 1060, n. 55.

For these reasons and those already presented to the Commission in the Company's post-hearing briefing (left unaddressed in the July 2 Opinion and Order), it is evident that EVA failed to properly calibrate the model that it used to calculate Staff's proffered energy credit. The Commission's approval of an energy credit that resulted from this uncalibrated model was unreasonable. Such an approach is unlikely to survive scrutiny from a reviewing court, especially because the disputed energy credit dwarfs the actual historical revenue data presented in the record. Rehearing, therefore, should be granted, and the Staff's erroneously calibrated model should be disregarded.

3. EVA erred in forecasting LMP prices instead of using available forward energy prices, especially given Staff's position in the Modified ESP proceeding that lower forward energy prices should be used for the MRO test.

The use of overstated market prices in the Staff/EVA approach to calculating an energy credit is yet another fundamental flaw that Mr. Meehan and Mr. Allen addressed in their testimony. This flaw is yet another topic that the Commission failed to address in its Opinion and Order (other than briefly reciting the Company's position on the matter, at p. 28), and it had a significant and material effect on the energy credit proffered by Staff and adopted by the Commission.

As Mr. Meehan testified, forward energy prices are the market's collective view of the most likely price outcome—they represent real money committed to *actual* market transactions by *actual* buyers and sellers. (AEP Ohio Ex. 144 at 14.) The forward energy price "reflects the consensus that the market has reached." (*Id.*) "The only view that represents a price that is current and can be transacted is at the market view or forward price." (*Id.*) Another key advantage of using forward prices is that they are "not subject to the whim of potential errors or inconsistencies in thousands of input data items or limitations in model capabilities." (*Id.*)

> The forward price can be observed and represents the consensus view of many market participants. Using a forward price eliminates the need to construct a forecast from thousands of unverifiable inputs and to calibrate for things which a model cannot measure. These items are all embedded in the forward market price.

(*Id*. at 14-15.) Despite these inherent advantages embodied in forward prices, Staff/EVA declined to use them to calculate the energy credit. Instead, Staff/EVA applied overstated forecasted market prices. Mr. Allen explained the staggering consequences of using overstated forecasted market prices instead of forward market prices:

> A comparison of the market prices used in Staff witnesses Harter and Medine's analysis to publically available forward prices for the AEP Zone shows that *their market prices are overstated by over $4/MWh over the three-year forecast period*. Overstated market prices will have the impact of overstating the margins produced by the generating resources of AEP Ohio and, as a result, will overstate the energy credit calculated by Staff.
> ***
> *I have estimated that the use of current forward market prices for the AEP zone would have reduced Staff witness Harter's energy credit by $50.42/MW-day*.

(AEP Ohio Ex. 142 at 8-9 (emphasis added).) Mr. Allen included this analysis in Exhibit WAA-R4. (*Id.*)

As the Company explained in post-hearing briefing, there are glaring inconsistencies between the method used by Staff witness Smith in developing the demand charge, versus the work done by witnesses Medine and Harter in developing the energy credit. (AEP Ohio Initial Br. at 54-57; AEP Ohio Reply Br. at 19-20.) Whereas Staff's demand charge was developed using 2010 *actual* cost data, Staff's energy credit was based on *projected* energy margins calculated with overstated market price forecasts. (AEP Ohio Initial Br. at 54-55.) Ms. Medine readily conceded this difference in the following exchange:

> Q. Mr. Smith used actual data when he developed the demand charge, did he not?
>
> A. Right, and we were doing – he is doing his cost based, and we are trying to come up with an energy credit so they are different analyses.
>
> Q. They don't use the same method even though you are netting them against each other, correct?

A. Correct.

(Tr. X at 2171.)

There are also glaring inconsistencies between the approach of Staff here in the capacity case, versus its insistence on using forward market prices in the Modified ESP case for the MRO test. In the Modified ESP case involving the same 2012-2015 time period that Staff used to project an energy credit, Staff witness Johnson's testimony uses the PJM forward market to establish a lower energy price and a more restrictive MRO test. *See* Case No. 11-346-EL-SSO, *et al.*, Prefiled Testimony of Daniel R. Johnson (filed May 9, 2012.) Put another way, in early May of this year, Staff gladly used forward market prices to make it more difficult for the Company to pass the ESP/MRO test. Only *days* before, in contrast, Staff's witness Medine submitted her testimony in this case, declining to use forward market prices in the energy credit calculation that she and witness Harter sponsored for Staff. Staff simply cannot have it both ways, and its rejection of forward market prices here can only be seen as a result-oriented selection of whatever methodology would reduce the capacity charge by the greatest possible extent. *Accord*, *State v. Pub. Util. Comm.*, 344 S.W.3d 349, 361 (Tex.2011) (Supreme Court of Texas ordering Public Utility Commission on remand in true-up proceedings to apply "actual sale" method to determine market value, rather than other methods that could be used to determine market value "indirectly;" noting that actual sale in a "bona fide third-party transaction on the open market" provides the "best measure" of market value.)

AEP Ohio witness Meehan provided the following apt summary of why his market-data based approach is superior to the approach that EVA utilized here with its overstated market price forecasts:

> To claim otherwise is the height of arrogance. If EVA had forecasting skills that were reliably superior to the market, it would

> be irrational for the firm to provide client services as they do. The rational thing to do would be to take proprietary market positions and trade using their superior insight.

(AEP Ohio Ex. 144 at 26-27.)

When counsel for Staff attempted to cross-examine Mr. Meehan on his understandable preference for the use of forward prices, Mr. Meehan confirmed the obvious superiority in his approach, as reflected in the following exchange at hearing:

> Q. Okay. Mr. Meehan, can you explain the difference between a forward-price curve and a forecast?
>
> A. Yes.
>
> Q. What is the difference?
>
> A. *A forward price is something that's observed in the market, it's a buyer and a seller. It's quoted. It's traded, business transacts at it.* A forecast is sort of a person's view of what the – of what market will be in the future. Usually based on some type of modeling exercise.
>
> Q. So you would agree then that a forward-price curve reflects on what parties may be willing to transact today for a date and a time in the future but may not necessarily reflect that – that market price in the future?
>
> A. I think both – I mean, neither a forward price nor a forecast is going to reflect the price in the future. The price in the future is going to change from what you would forecast or project with a *** forward-market price at this time. *I think a forward-market price is the best forecast of the market price in the future.*
>
> Q. *So is it your testimony that the only reliable number to use in the analysis of the energy credit in this case is the forward-price curve power?*
>
> *A. More or less, yes. I mean, I think if a forward price exists for a product or commodity, as I say in my testimony, I think it's sort of arrogant to say you have a forecast that's better than that. If you do, you probably should be out trading, not – not testifying.*
>
> Now there is a lot of reasons for a model – model provides more information if you're looking at fuel consumption, fuel usage, or comparing alternatives. But when a forward price is available, I think it is generally superior to a view of the market developed from a forecast.

(Tr. XII at 2756-57 (emphasis added).) In spite of the clear advantages to utilizing forward prices, Staff witness Medine steadfastly maintained her view that it is better in this case to rely on her subjective judgment than to rely on actual forward contract data reflecting negotiated market prices. (Tr. X at 2168.) The Commission should examine this portion of Ms. Medine's cross-examination closely. Her responses to questions about why forward prices were *not* applied are hardly convincing. They betray an inexplicable preference for *forecasting* a key component of the energy credit calculation that would be more accurately reflected by *actual forward prices*:

> Q. Why not use actual forward prices that are out there for this kind of a short term?
> A. *Because forward prices, you know, are forward prices. They're not forecasts* and so there is a relationship between a forecast and a forward price but a forward price is simply what you or I would agree to do today to buy power or coal or whatever two years from now.
> *And we believe it's more accurate to use a fundamental forecast rather than a forward price curve of any kind* – anything but sort of the prompt period and if you do the analysis of the forward price curves, you know that forward price curves *** move on a dime. If the forward price today is $50, you know, prompt year plus one will be 52, 54, and a month from now it will go to 60, 62, 64. They go up and down with the wind, with the weather, with everything. *So we just don't believe that the *** forward price curve is the way to go*.

(*Id.* at 2166 (emphasis added).) If the Commission buys into this kind of unconvincing (at times, bordering on nonsensical) justification for relying on a price *forecast* instead of known forward prices, then it is abdicating its duty to ensure that Staff's proffered energy credit – which the Commission adopted in its Opinion and Order – is reasonably supported by reliable evidence in the record. Further, if the Commission applied the same logic in administering the MRO test under R.C. 4928.143(C), it would use higher prices based on such projections – which it has not done. In sum, because there is no apparent, reasonable explanation for maintaining the absurd position that *predicted* (and overstated) market prices are superior than *actual forward prices* when it comes to calculating the energy credit (other than to support overstated energy margins that would, in turn, result in lowering the capacity charge), the Commission should grant rehearing and adjust Staff's energy credit accordingly, based on the application of reliable forward prices.

4. The record shows that EVA used inaccurate and understated fuel costs.

As the Commission noted in its July 2 Opinion and Order (at 28), the Company also objected to Staff's energy-credit calculation on the basis that it understates fuel costs for coal units. The Company detailed this objection at pages 57-60 of its initial post-hearing brief, replete with citations to the record, and again in its reply brief (at pages 29-30.) The Commission, however, failed to specifically address this objection before concluding (at 34) that Staff's recommended energy credit is "reasonable." For the reasons that follow, the Commission should grant rehearing to address the understated fuel costs (costs that Staff witness Medine herself conceded on cross-examination were "certainly aggressive" (Tr. X at 2288-89)) that Staff/EVA incorporated into the energy credit calculation.

AEP Ohio witness Allen noted several troubling understatements of fuel costs during his review of Harter and Medine's energy-credit calculations. For example, Mr. Allen reviewed EVA's fuel cost data for Gavin Units 1 & 2 (AEP Ohio's largest generation resources) and noted that the fuel cost data for these units understated actual 2011 fuel costs by over $5/MWh ($390 million, based upon the Staff witnesses' projected generation for these units). (AEP Ohio Ex. 142 at 5.) Although Ms. Medine testified on cross-examination that "anomalous events" at the Gavin plant contributed to this discrepancy, Mr. Allen disagreed, noting that the one-time payment Ms. Medine referred to was booked to fuel expense in 2008 and had no bearing on the

2011 actual fuel costs that he reviewed for comparison purposes. (*Id.*) **Mr. Allen conservatively[4] estimated that the use of more reasonable fuel costs would have significantly reduced Staff's energy credit by $70/MW-day**. (*Id.* at WAA-R1.) Mr. Meehan discovered the same fundamental fuel cost error in his review of EVA's analysis, saying:

> EVA has understated operating costs for many AEP Ohio generating units. One obvious example if the Gavin plant where EVA uses approximately $14/MWH for fuel costs while the actual fuel cost calculated by data supplied by AEP for the June 2012 to May 2015 period is expected to be approximately $24/MWH. As EVA projects Gavin to generate over 60 TWH (terawatt-hours), the impact on margin of this single fuel costs error, all else equal, is an overstatement of margins by at least $600 million. This is just from the fuel cost error for one plant.

(AEP Ohio Ex. 144 at 16.) Mr. Meehan also took issue with Staff/EVA's attempts to defend, instead of correct, this very substantial fuel cost error. He explained:

> There may well be many other errors in the EVA Aurora database – but there is no reason to believe that these other errors offset the impact of the error in Gavin fuel cost. EVA, by defending and not correcting the very substantial Gavin fuel cost error, is asking us to believe that its gross margins are correct because if it corrected all errors in the model, the market price would change by the exact same amount that it has understated Gavin fuel costs. This is preposterous. *** Hence, it is implausible, illogical and unreasonable to believe that energy margin results are made more accurate by ignoring the error in the assumptions regarding the cost of AEP Ohio units, in particular Gavin's fuel costs, than by fixing it. The correct thing to do is to fix known errors not ignore them. *** Also note that the Gavin error is not the only fuel costs error. It is just the fuel cost error with the most impact.

(*Id.* at 19-20.)

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[4] Mr. Allen's approach, using 2011 actual fuel costs as the point of reference for evaluating the amount by which EVA's fuel cost assumptions are understated for the ESP period, is very conservative because, in fact, the fuel costs for coal units is escalating during the time period in accordance with the terms of the coal contracts that will provide most of the fuel for the plants. (Tr. XI at 2460-2461.)

Again, in spite of these strong criticisms regarding the very significant fuel cost errors underlying its energy credit calculation, Staff devoted precious little briefing and argument to the issue in its post-hearing briefs. In its initial brief, for example, on the subject of fuel cost inputs to the model, Staff asserted only that:

> Mr. Allen also acknowledged from Staff Exhibit 108 (EIA Short-Term Energy Outlook Released May 8, 2012) that EIA forecasts the average delivered coal price in 2012 will be 2.8% lower than the 2011 average price and the average delivered coal price in 2013 will be 3.8% lower than 2012. This outlook supports Staff witness Medine's modeled forecast and analysis with respect to coal prices.

(Staff Initial Br. at 63.) But this assertion by Staff, and its reliance on Staff Exhibit 108, is simply wrong. As AEP Ohio explained succinctly in its post-hearing reply brief:

> Staff also argues (at 63) that Mr. Allen acknowledged from Staff Exhibit 108 *** that EIA forecasts the average delivered coal price in 2012 will be 2.8% lower than the 2011 average price, and the average delivered coal price in 2013 will be 3.8% lower than 2012. Staff suggests that this outlook supports Ms. Medine's modeled forecast and analysis with respect to coal prices. On the contrary, the forecasted drop in coal prices are for *spot purchases*, and AEP already has contracts in place for most of its coal needs. (Tr. XI at 2430-2431.) Staff Exhibit 108 does not in any way lend credibility to EVA's grossly understated fuel costs.

(AEP Ohio Reply Br. at 29 (emphasis in original).)

Tellingly, Staff did not rely on its Exhibit 108 again in its reply brief. Instead, Staff defended the understated fuel cost inputs by asserting that:

> EVA did not change or manipulate any fuel cost data, which was customized and reflected EVA's latest input assumptions, when operating and running its Aurora model for this engagement and analysis. Therefore, EVA committed no bias with its model results. *** Mr. Meehan further testified that he did not review any coal contracts for Gavin because he relied on AEP Ohio for cost data. AEP Ohio witness Allen acknowledged that the short term energy outlook published recently by the U.S. Department of Energy states that the average delivered coal price is declining

> from 2011 to 2012, and again in 2013. Mr. Meehan agreed under cross examination that fuel costs are very important to the analysis of gross margins. He also agreed that if AEP Ohio is overstating fuel costs then his or AEP Ohio's gross margins would be understated.

(Staff Reply Br. at 18-19.) But these assertions by Staff in reply do not solve the significant problems that AEP Ohio identified with respect to the fuel cost inputs to the Staff/EVA model. The fact that EVA did not "manipulate" fuel cost data does not solve EVA's failure to use the correct data inputs in the first place, such as the correct inputs for the Gavin plant. The fact that Mr. Meehan did not review any coal contracts for Gavin is also immaterial – the Commission may review them itself on rehearing if it has any reason to doubt what those contracts say. And the fact that DOE's outlook for average coal price is declining is immaterial when it is uncontroverted that AEP Ohio already has coal contracts in place for most of its coal needs. (Tr. XI at 2430-31.) EVA's cost assumptions bear no rational relationship to actual historical costs and the Commission failed to meaningfully address these flaws in its July 2 Opinion and Order. For all of the foregoing reasons, and for the reasons previously set forth in AEP Ohio's post-hearing briefs, the Commission should grant rehearing to adjust Staff's energy credit based on EVA's inaccurate and understated fuel costs.

5. EVA failed to use correct heat rates to capture minimum and start time operating constraints and associated cost impacts.

Still another significant flaw in Staff's energy credit that merits rehearing relates to EVA's failure to apply correct heat rate data. AEP Ohio discussed this flaw in detail at pages 60-64 of its initial post-hearing brief, including multiple citations to the record. Again, while acknowledging this objection by the Company (at page 28 of its July 2 Opinion and Order), the Commission made no specific findings or conclusions related to it. The Commission apparently dismissed this concern as part and parcel of its unsupported determination that Staff's recommended energy credit is "reasonable." July 2 Opinion and Order at 34, 36.

The crux of the heat-rate problem meriting rehearing is that EVA assumed that each of the Company's generating units either operates at its full-load heat rate or is offline. (Staff Ex. 105 at 10-11.) Staff itself confirmed this fact in its initial post-hearing brief, saying "EVA chose to use the EPIS default heat rate at which each generation unit could operate (also known as full output heat rate)." (Staff Initial Br. at 50.) *Thus, there is no dispute in the record about the heat rate data that Staff's consultants utilized in their energy credit model*.

EVA chose this expedient route after an internal debate about whether to customize heat rate data. (Tr. X at 2151.) As Company witness Allen explained, even though actual heat rate data for AEP's units is "publicly and readily available" on pages 402 and 403 of the Company's FERC Form 1s, EVA chose the wrong approach after this internal debate and "significantly understated the heat rates of the plants/units." (AEP Ohio Ex. 142 at 7.) As he testified:

> I have estimated that the use of correct actual heat rates for the gas fired generation resources would have reduced Staff's energy credit by $1.87/MW-day. This analysis is included in Exhibit WAA-R3. The impact of these heat rate errors on the coal units is included in the fuel cost analysis I previously discussed so I have not separately calculated the impact here. The understated heat rates that Staff witnesses Harter and Medine used for the gas fired generation resources of AEP Ohio results in overstated margins.

(AEP Ohio Ex. 142 at 8.) Company witness Meehan agreed with Mr. Allen that EVA modeled the energy credit using flawed heat rates, explaining:

> The point is that *the model developer's claim that it is appropriate to use full load heat rates and have units be at full capacity or off is wrong and has been offered without any context supporting the specific application of the model*. Large steam units simply cannot run that way. Many of AEP's large steam units are supercritical units *** that have minimum up and down times of 72 hours. If the unit is economic over this cycle it will run and it will be

> profitable during the day, but to achieve these profits it will have to run at minimum load over the night period and sustain losses that will offset its daytime profits. *The failure to model with correct minimum up and down times, to model a heat rate at minimum load, and to only reflect the full load heat rate and turn AEP's coal units on and off with no regard for minimum up and down times, is a fatal flaw in modeling unit profits*.

(AEP Ohio Ex. 144 at 22-23 (emphasis added).) Mr. Meehan went on to explain that while it may have been "simpler" for EVA to model this way, it is "inadequate" and unrealistic for EVA to assume that "the units can be turned off and on at the flip of a switch." (*Id.* at 23.) Mr. Meehan estimated that EVA's failure to properly model operational constraints for the coal-fired generating units resulted in an overstatement of gross margins by $256 million, all else equal. (*Id.* at 30.)

Staff witness Medine ultimately acknowledged that using optimal heat rates does not capture the minimum run operation or start times, and she also admitted that EVA had not done the modeling for AEP Ohio using anything approaching an average heat rate. (Tr. X at 2246.) She further acknowledged that the table on page 12 of her testimony shows that even the largest plant, Gavin station, does not run 20% of the time and, therefore, it cannot experience the optimal heat rate. Similarly, the Cardinal plant does not run about 20% of the time and the heat rate she used for Cardinal was 5% less than the average heat rate recently experienced at the plant. (*Id.* at 2243-2246, 2250.) Ultimately, she agreed that in EVA's analysis, the costs are understated and the projected margins are overstated through the use of optimal heat rates, because start costs and minimum run costs are not reflected. (*Id.* at 2255-2256.)

Given these undisputed facts in the record relating to EVA's use of flawed heat rate data in the Aurora model, it is not surprising that Staff, in its post-hearing reply brief, glosses over the issue, without any citations to the record whatsoever, saying, "EVA's efficient heat rate application was correctly used and applied for this analysis. Simply because AEP Ohio finds the results disadvantageous does not make EVA's method, analysis, and results wrong." (Staff Reply Br. at 19-20.) Respectfully, if the Commission is going to choose Staff's energy credit methodology instead of the Company's, then it must demand from Staff a far more meaningful and robust response than this one to legitimate criticisms that the Company has developed on the record through the supplemental testimony of multiple witnesses.[5] EVA's "method, analysis, and results" *are indeed wrong* for their failure to correctly model known and undisputed operational constraints, which resulted in an overstatement of gross margins by $256 million, all else equal. (AEP Ohio Ex. 144 at 30.)

6. EVA's energy credit wrongly incorporates traditional OSS margins and otherwise fails to properly reflect the impact of the Pool.

As described above, the Commission's July 2 Opinion and Order, at 29, characterizes Staff's/EVA's energy credit's incorporation of OSS margins not associated with shopping, imputation of a market-based margin for non-shopping customers, and failure to properly reflect the operation of the FERC-approved Pool of which AEP Ohio is a member, as well as AEP Ohio's reasoned refutation of those fundamental errors during cross-examination, in rebuttal testimony, and in post-hearing briefs, as "differences in methodology." Like the other errors discussed above, however, EVA's errors with respect to OSS margins and the Pool in calculating the energy credit, and the Commission's unreasonable adoption of EVA's flawed methodology with regard to those issues, do not amount to "differences in methodology." They represent clear errors in the Staff's methodology and they warrant correction on rehearing.

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[5] *Compare, United States v. Ohio Edison Co.*, 276 F.Supp.2d 829, 879 (S.D. Ohio 2003) (in rejecting the defendants' contention that a government expert had ignored projected and actual heat rate improvements in his emissions calculations, the district court noted that "Dr. Rosen examined monthly heat rate and utilization factors for each of the Sammis units" before rendering his conclusions).

a. The adopted energy credit erroneously reflects more than OSS margins created by "freed up" energy associated with the capacity being paid for by CRES providers.

Under the approach that the Commission adopted in setting the energy credit established in its July 2 Opinion and Order, it is assumed that AEP Ohio's Member Load Ratio ("MLR") share (currently 40%) of <u>all</u> OSS margins are retained and available to offset costs of capacity furnished to CRES providers. The approach does not offset those capacity costs with only AEP Ohio's retained energy margins from "freed up" OSS sales; rather, in addition to those margins, it also commandeers retained margins from unrelated OSS sales (*i.e.*, traditional OSS margins).

As the Company explained in its post-hearing briefs, an energy credit operating to reduce the price of capacity that is supplied to CRES providers should not include an offset for OSS margins not associated with the capacity being paid for to support shopping load. (AEP Ohio Initial Br. at 69-76; AEP Ohio Reply Br. at 31-34.) Indeed, such an offset is unreasonable because non-shopping retail customers do not receive such an offset. Moreover, the Commission determined that a cost-based mechanism should be adopted; therefore, imputing a hyper-inflated margin conflicts with the Commission's stated intention.

If the Commission does find it necessary to offset the energy credit based on OSS margins, it should certainly not appropriate the margins retained by AEP Ohio that are independent of the capacity supplied to CRES providers. CRES providers and their customers should not have an OSS margin credit when retail customers do not. Thus, if the energy credit must account for OSS margins, only those attributable to "freed up" energy associated with the capacity being sold to a CRES provider should be included. The energy credit should not also confiscate AEP Ohio's traditional OSS margins, which exist independent of any sale of capacity to CRES providers. The Commission's July 2 Opinion and Order, however, disregarded AEP

Ohio's arguments on this point and unreasonably adopted an energy credit which strips from the Company its traditional OSS revenues without meaningfully addressing these objections. This error should be corrected on rehearing and, to the extent any OSS margins are included as an offset in determining the energy credit, only those margins actually attributable to "freed up" energy should be used.

b. The adopted energy credit imputed a fictional market-based margin attributable to 100% of the non-shopping load and incorporated that into the energy credit to offset the charge for shopping load, which not only creates an unreasonable and unlawful subsidy, but also confiscates margin that AEP Ohio is authorized to retain through its SSO rates.

The Commission's adoption of Staff/EVA's erroneous energy credit methodology also inappropriately attributes fictional market-based margin to 100% of nonshopping load and incorporates that attribution into the energy credit to offset the capacity charge for CRES providers. Specifically, Staff assumed that <u>100%</u> of the retail energy margins that it imputed are available, and Staff used them to offset the cost of capacity furnished to CRES providers. As the Company explained in post-hearing briefing, this was patently unreasonable, and the Commission's July 2 Opinion and Order, which adopts this methodology, is likewise unreasonable.

As an initial matter, Staff did not explain why <u>any</u>, let alone why all of its imputed retail SSO margins should be co-opted for the benefit of CRES providers. The improper imputation of 100% non-shopping margins also mathematically dilutes the impact of the Pool, based on an arbitrary and capricious inclusion of *non-shopping margin* in the energy credit calculation relating to the price of capacity *for shopping load*. AEP Ohio's SSO pricing has been, and is being, established through separate proceedings involving the distinct ESP regulatory regime; SSO pricing and SSO margins therefore have no place in the energy credit calculations related to shopping load. (*Id.* at 74.) Thus, the Commission's decision adopting Staff's improper methodology unlawfully confiscated non-shopping SSO revenues by commingling them with OSS margins used to develop the wholesale capacity charge for CRES providers. In addition to violating the FERC-approved Pool Agreement and the Federal Power Act, the Commission's adoption of a methodology that funds a capacity charge discount through the use of SSO revenues also amounts to a subsidy of a competitive service and, therefore, conflicts with Ohio's energy policy and basic economic principles.

c. The adopted energy credit unlawfully fails to reflect operation of the FERC-approved Pool in its inflated energy credit.

In addition to the perverse impact that the Commission-adopted methodology of imputing 100% of non-shopping SSO margins as an offset to CRES providers' capacity costs has in improperly inflating the energy credit, the methodology also unlawfully disregards the correct operation of the FERC-approved Pool. Company witness Nelson explained that imputing non-shopping SSO energy margins as "Retail Margins" and then providing 100% of that margin to CRES providers effectively increases the MLR from an actual 40% (the level that AEP Ohio is required to retain under the Pool) to about 92% (a level not permitted by the Pool). (AEP Ohio Ex. 143 at 10.) This approach greatly overstates the amount of margin that AEP Ohio can retain under the FERC-approved AEP Pool Agreement and provides a windfall to CRES providers, particularly at the low level of shopping that Staff has assumed. (*Id.* at 10-11; AEP Ohio Initial Br. at 73.) The Pool is under the FERC's jurisdiction and infringement upon its operation is preempted by federal law. (*See* AEP Ohio Ex. 143 at 2); *Mississippi Power & Light,* 487 U.S. 354, 357, 108 S.Ct. 2428 (1988); *American Electric Power Service Corp.,* 32 FERC ¶ 61,363 (1985). In substance, this flawed method confiscates revenues from AEP Ohio's retail SSO sales and uses them to subsidize CRES providers through a lower wholesale rate that they pay to AEP

Ohio for capacity. (AEP Ohio Ex. 143 at 6,11.) This fictional imputation and retention of energy margins further, and substantially, inflates AEP Ohio's retained energy margins and, ultimately, EVA's proposed energy credit. For this reason too, Staff's flawed energy credit methodology should be rejected on rehearing.

7. EVA's estimate of gross margins that AEP Ohio will earn in the June 2012 through May 2015 period are overstated by nearly 200%, as shown by AEP witness Meehan's alternative calculation of forecast gross margins.

For the foregoing reasons, EVA's flawed inputs and approach resulted in a grossly overstated energy credit. Should the Commission agree to rehear this case, and should it continue to adhere to the view that an energy credit offset is appropriate, then the Company submits that AEP Ohio witness Meehan's supplemental testimony provides a defensible and accurate alternative calculation of gross margins. (AEP Ohio Ex. 144 at 23, *et seq.*) Pages 66-68 of AEP Ohio's initial post-hearing brief summarize the documented, transparent, and verifiable approach that Mr. Meehan took to assess the gross margins that AEP Ohio will earn from June 2012 through May 2015. The transparency of Mr. Meehan's approach was confirmed under cross examination, when counsel for IEU asked Mr. Meehan to explain each column of the hourly calculations performed for each generating unit. (Tr. XI at 2725-31.) If the Commission compares Mr. Meehan's exhibit ETM-R2 against EVA's estimate of gross margins (ESM-1), the Commission will see that EVA's estimate is nearly 200% higher than Mr. Meehan's more objective and accurate estimate of realizable margins.

8. At a minimum, the Commission should conduct an evidentiary hearing on rehearing to evaluate the accuracy of EVA's energy credit compared to actual results.

In light of the foregoing fundamental errors in Staff's energy credit, the Commission should grant rehearing and hold an evidentiary hearing for the purpose of testing the validity of

EVA's energy credit methodology against actual data. R.C. 4903.10 empowers the Commission on rehearing to hold an evidentiary hearing and accept additional evidence into the record. A hearing should be conducted in order for the Commission to evaluate the extent to which EVA's methodology grossly overstates the Company's energy margin. Newly available information confirms the inaccuracy of EVA's forecasted energy credit compared to actual results, and the Company should be granted the opportunity to present that evidence at a hearing for the Commission's consideration on rehearing. In support of this request, the Company makes the following proffer: AEP Ohio's actual energy margins for the month of June 2012 were $11,249,211. EVA's forecasted energy margins for the same month were $36,128,311 – more than <u>three times</u> higher than the Company's actual margins. For the month of June 2012 alone, EVA's methodology results in an energy credit that is overstated by $91.52/MW-day. Provisional data for July confirms a similar degree of error in EVA's projections. The Commission should grant rehearing and hold an evidentiary hearing to accept additional factual data to date regarding, and to address, this gross overstatement and inaccuracy.

C. The Commission's adoption of an energy credit that incorporates actual costs from the 2010 test period and then imputes revenues that have no basis in actual costs creates a state compensation mechanism that is unconstitutionally confiscatory and that results in an unconstitutional taking of property without just compensation.

The Commission has acknowledged that "traditional constitutional law questions are beyond [its] authority to determine." *In the Matter of the Application of Columbia Gas of Ohio, Inc., for Approval of Tariffs to Recover, Through an Automatic Adjustment Clause, Costs Associated with the Establishment of an Infrastructure Replacement Program and for Approval of Certain Accounting Treatment*, Case No. 07-478-GA-UNC, Opinion and Order at 14 (April 9, 2008). Even so, out of an abundance of caution, the Company is further including in its

Application for Rehearing such arguments as might be made to a reviewing court, in the event that the Commission denies the Company's Application for Rehearing. R.C. 4903.10 ("No party shall in any court urge or rely on any ground for reversal, vacation, or modification not so set forth in the application."). Notably, the Commission has considered the merits of constitutional claims on rehearing before, as it did in the *Columbia Gas* matter cited above (rejecting an intervenor's impairment-of-contracts claim). Of course, the Commission should adjudicate cases in such a way as to avoid constitutional infirmities. In any case, because AEP Ohio may need to seek judicial review of the Commission's July 2 Opinion and Order for constitutional defects, in the event that inadequate relief is obtained from the Commission on rehearing, the Company is ensuring that it preserves here its claims that the Commission's Opinion and Order violates the Company's constitutional rights in distinct respects.

First, the Opinion and Order violates the Company's rights under the Due Process Clause of the United States Constitution because it is confiscatory, unjust, and unreasonable under the "end result" standard articulated by the United States Supreme Court in *Fed. Power Comm. v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) and its progeny. Second, the Opinion and Order results in an unconstitutional regulatory taking of the Company's property without just compensation, under the "partial taking" standard set forth in *Penn Central Transp. Co. v. New York City*, 438 U.S. 104 (1978) and its progeny. These constitutional theories supporting modification of the Commission's Order are set forth separately in greater detail below. If the Commission agrees to rehear this case and modify its Order as the Company requests herein, then these pressing constitutional issues may be avoided.

1. The Commission's Order is confiscatory, unjust, and unreasonable under the "end result" standard of *Hope Natural Gas*.

The Due Process Clause of the United States Constitution prevents states from making or enforcing any law which would deprive a person of property without due process of the law. According to the United States Supreme Court, when regulatory price controls prevent a utility from realizing a reasonable rate of return, those price controls are confiscatory and, therefore, violate the Due Process Clause. *Fed. Power Comm. v. Natural Gas Pipeline Co.* 315 U.S. 575, 585 (1942) ("by long-standing usage in the field of rate regulation, the 'lowest reasonable rate' is one which is not confiscatory in the constitutional sense."); *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm. of West Virginia*, 262 U.S. 679 (1923) (reversing an administrative order prescribing utility rates because the rate calculation undervalued the plaintiff utility's capital investments); *Covington & Lexington Turnpike R.R. Co. v. Sandford*, 164 U.S. 578, 597 (1896) (holding that a prescribed rate is confiscatory if it "practically deprives the owner of property without due process of law."). *See also Fed. Power Comm. v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) (establishing an "end-result" standard for reviewing the constitutionality of regulated utility rates). Further, as discussed separately below, the July 2 Opinion and Order results in an unconstitutional partial taking due to the financial impact on AEP Ohio's generation function (later to become the AEP Genco) that is providing the capacity to support retail shopping.

In *Hope Natural Gas*, the U.S. Supreme Court held that a prescribed utility rate is too low, and thus violates due process, unless the "end result" of the rate on a utility is "just and reasonable." 320 U.S. at 603. The Court provided further guidance on this point:

> From the investor or company point of view it is important there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and

> dividends on the stock. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

Id. *See also Bluefield Water Works*, 262 U.S. at 692-93 ("a public utility is entitled to such rates and will permit it to earn a return . . . equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties."). Courts have confirmed that the *Hope Natural Gas* standard means more than merely preventing a utility from going bankrupt. "*Hope Natural Gas* talks not of an interest in avoiding bankruptcy, but an interest in maintaining access to capital markets, the ability to pay dividends, and general financial integrity. While companies about to go bankrupt would certainly see such interests threatened, companies less imminently imperiled will sometimes be able to make that claim as well." *Jersey Cent. Power & Light Co. v. Federal Energy Regulatory Comm.*, 810 F.2d 1168, 1180 (D.C. Cir. 1987) (noting that "where, as here, the Commission has reached its determination by flatly refusing to consider a factor to which it is undeniably required to give some weight, its decision cannot stand.")

The Ohio Supreme Court is familiar with the *Hope Natural Gas* standard, having applied the test in multiple appeals from Commission orders. In *Dayton Power & Light Co. v. Pub. Util. Comm.*, 4 Ohio St.3d 91, 447 N.E.2d 733 (1983), the utility filed an application for a rate increase. The Commission denied the utility's requests to amortize its investment in a cancelled power plant. In its appeal to the Ohio Supreme Court, the utility contended that the exclusion of expenditures associated with the cancellation of the Killen Generation Station amounted to the confiscation of property under the Fifth and Fourteenth amendments. The Supreme Court noted that the confiscation clause of the Fifth Amendment applies to the states through the Due Process

Clause of the Fourteenth Amendment. *Dayton Power & Light*, 4 Ohio St.3d at 100, n.9. The Court ultimately concluded that there was "little evidentiary support" for DP&L's contention that exclusion of the costs associated with the cancellation of Killen Unit 1 guaranteed that DP&L would be unable to earn a "fair and reasonable rate of return," rejecting the utility's invocation of the confiscation clause. *Id.* at 104-05. The Supreme Court concluded that "the constitutional cases make it clear that a successful challenge must demonstrate that the rate order when reviewed in its entirety falls outside the 'broad zone of reasonableness,' and the 'heavy burden' of establishing unreasonableness must be borne by the challenger. *Id.* at 105 (internal citations omitted.) Notably, in support of its conclusion, the Supreme Court examined the record and found that the utility "*presented no witnesses relative to the subject and did not address the matter on brief*." *Id.* at 104-05 (emphasis added.) Thus, in the *DP&L* case, the utility attempted to prevail on the constitutional claim without any evidentiary support in the record.

A decade later, in an appeal by the Ohio Edison Company, the Ohio Supreme Court again concluded that the Commission's order did not result in confiscation of the utility's property in violation of the Fifth and Fourteenth Amendments. *Ohio Edison Co. v. Pub. Util. Comm.*, 63 Ohio St.3d 555, 589 N.E.2d 1292 (1992). Ohio Edison claimed that the "end result" of the Commission's order was to set rates so low as to prevent the company from maintaining its financial integrity, based upon its witness's testimony that the rate relief requested in the company's application ($216 million) was necessary to maintain its debt rating and dividend level. Applying the *Hope Natural Gas* line of precedent, the Supreme Court noted that "a balancing of investor and consumer interests" is required to avoid confiscation. With respect to that balance, the Court noted that:

> The Commission cannot confine its inquiries either to the computation of costs of service or to conjectures about the

> prospective responses of the capital market; it is instead obliged at each step of the regulatory process to assess the requirements of the broad public interests entrusted to its protection *** [.] Accordingly, the 'end result' of the Commission's orders must be measured as much by the success with which they protect those interests as by the effectiveness with which they "maintain *** credit and *** attract capital."

Id. at 563, *quoting Permian Basin Area Rate Cases*, 390 U.S. 747, 791, 88 S.Ct. 1344, 20 L.Ed.2d 312 (1968). Ohio Edison premised its claim of confiscation upon four allegedly erroneous determinations by the Commission: (1) the allocation of deferred costs; (2) the exclusion of certain plant that was classified as CWIP when the company filed its application, but was later transferred to plant in service; (3) the taking of judicial notice of the posthearing price at which the company's stock was trading; and (4) revisions to its traditional discounted cash flow model. *Id.* at 564. The Supreme Court concluded that, because it upheld the Commission's actions with respect to each of these individual determinations, the utility failed the first prong of the *DP&L/ Hope Natural Gas* standard and thus could not prevail in its constitutional claims. *Id.* The Supreme Court decided that "the record shows that the commission appropriately followed the legislatively mandated ratemaking formula, through which it balanced investor and consumer interests, and thereby set just and reasonable rates." *Id.* at 565.

The case at bar is easily distinguishable from the *DP&L* and *Ohio Edison* cases, where the Supreme Court rejected the utilities' confiscation claims. Although the utility in the *DP&L* case "presented no witnesses" relative to the confiscation issue, the record here is replete with testimony outlining the unreasonable and confiscatory results of the Commission's decision to adopt an energy credit that will assuredly result in a failure to compensate the Company for the embedded costs of capacity.[6] And although the utility in the *DP&L* case "did not address the matter on brief," the Company here addressed the confiscatory nature of the Commission's energy credit and the potential capacity cost outcomes at length on brief.[7] And although the utility in the *Ohio Edison* case failed to prove the unreasonableness of the Commission's determinations, the Company here is asserting (and will prove) fundamental errors far different than those at issue in that case. As the arguments above related to the Commission's energy credit demonstrate, the Company has surely met its burden to prove the unreasonableness of the Commission's determination to adopt Staff's flawed energy credit, and the confiscatory effect

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[6] AEP Ohio witness Allen, for example, demonstrated that a decision which forced the Company to provide RPM-priced capacity to CRES providers would cause AEP Ohio to suffer significant financial harm. (Tr. III at 677; AEP Ohio Ex. 104 at 3-5, Ex. WAA-1; AEP Ohio Ex. 142 at 21-22, Ex. WAA-R8.) Indeed, Mr. Allen testified that financial harm to the Company is implicit in any requirement that it provide the use of its assets at a rate below its costs. (Tr. III at 697-98.) Even some intervenor witnesses testified that rates should not be confiscatory, such as RESA witness Ringenbach, who agreed that confiscation would occur if AEP Ohio incurred costs that are not being reimbursed. (Tr. IV at 802. *See also* Tr. VI at 1271-72 (witness Kollen conceding that a 7% ROE is either confiscatory or bordering on confiscatory).) The Commission itself, in its July 2 Opinion Order, agreed that "it is necessary and appropriate to establish a cost-based state compensation mechanism for AEP Ohio. *** The Commission's obligation under traditional rate regulation is to ensure that the jurisdictional utilities receive reasonable compensation for the services that they render. We conclude that the state compensation mechanism should be based on the Company's costs." July 2 Opinion and Order at 22. The Commission further agreed that "RPM-based capacity pricing would be insufficient to yield reasonable compensation for AEP-Ohio's provision of capacity to CRES providers in fulfillment of its FRR capacity obligations." (*Id.* at 23.)

[7] (*See, e.g.,* AEP Ohio Initial Br. at 4 ("At a minimum, if the energy credit is to capture the OSS margins attributed to 'freed up' energy associated with the capacity being used by a CRES provider, it should not also confiscate AEP Ohio's pre-existing traditional OSS margins that are unaffected by the sale of capacity to CRES providers."); *id.* at 5 ("One particularly egregious error was that EVA imputed a fictional market-based margin attributable to 100% of the non-shopping load and incorporated that into the energy credit to offset the charge for shopping load, which not only creates an unreasonable and unlawful subsidy but also confiscates margin that is authorized for AEP to retain under SSO rates."); *id.* at 21 (discussing the confiscatory result of ordering AEP Ohio to charge CRES providers on the RPM-based price for capacity.); *id.* at 27-28 (discussing the financial harm that would result if RPM pricing is retained in full or in part.). *See also* AEP Ohio Reply Br. at 8 (noting that RPM-based rates would undermine AEP Ohio's ability to attract capital and ensure the availability to customers of adequate, reliable, safe, efficient, nondiscriminatory, and reasonably priced retail electric service).)

that those determinations had on the non-compensatory capacity charge established in the Order. *Accord, KN Energy, Inc. v. City of Broken Bow et al.*, 244 Neb. 113, 505 N.W.2d 102 (1993) (Nebraska Supreme Court holding that rates set by municipalities were confiscatory and deprived supplier of property without due process of law when municipalities adopted rates based on erroneous assumptions of product revenue and transportation revenue, and the combined effect of the erroneous assumptions was to "decrease the return on KN's equity to a level below that which investors could earn from investments in other similar businesses"); *Potomac Elec. Power Co. v. Pub. Serv. Comm.*, 380 A.2d 126 (D.C. Cir. 1977) (holding that rate order was unjust and unreasonable since it deprived utility of opportunity to earn a fair rate of return, based on improper disregard by Commission of relevant data and other methodological errors.) In *Potomac Electric*, the D.C. Circuit concluded that "by arbitrarily disregarding actual, historical, and uncontroverted data submitted as evidence by Pepco during the extended course of the hearing, the Commission all but guaranteed that the company would not be able to approach earning the rate of return it authorized." *Id.* at 133. The *Potomac Electric* court ordered the Commission, on remand, to calculate modified rates based on updated data. *Id.* at 147-148. The Company is confident that, unless rehearing is granted and the Commission addresses the serious flaws in Staff's energy credit, the Supreme Court (or another forum with appropriate jurisdiction over the Company's constitutional claims) will agree that the Commission has unlawfully confiscated AEP Ohio's property in violation of the Fifth and Fourteenth Amendments.

2. The Commission's Order results in an unconstitutional partial taking of AEP Ohio's property without just compensation under the *Penn Central* standard.

The Fifth Amendment to the U.S. Constitution provides, in part, "nor shall private property be taken for public use, without just compensation." The U.S. Supreme Court has held that the Fifth Amendment's takings prohibition also applies to state governments through the Fourteenth Amendment. *Chicago B. & Q. R. v. Chicago*, 166 U.S. 226 (1897). Although the Takings Clause is traditionally implicated in cases involving the actual appropriation of physical property, the U.S. Supreme Court has recognized that government *regulation* is also a taking when the regulation "goes too far." *See Pennsylvania Coal v. Mahon*, 260 U.S. 393, 415 (1922) (holding that a statute restricting the exercise of coal mining rights was a taking because it had "nearly the same effect for constitutional purposes as appropriating or destroying" the property right at issue).

In order to succeed on a claim under the Takings Clause, a party must establish first that it possesses a constitutionally protected property interest. *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1000-01 (1984). This is easily done here, because the United States Supreme Court has previously concluded that a utility provider's revenue constitutes a protected property interest. *See Duquesne Light Co. v. Barasch*, 488 U.S. 299, 308 (1989) (holding that if utility rates do not "afford sufficient compensation, then state has taken the use of utility property without paying just compensation" in violation of the Takings Clause). Where a regulation deprives property of less than 100 percent of its economically viable use, a court must consider: (1) the economic impact of the regulation on the claimant, (2) the extent to which the regulation has interfered with distinct investment-backed expectations, and (3) the character of the governmental action. *Penn Central Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978).

The Ohio Supreme Court has discussed the *Penn Central* test as it relates to claims of partial regulatory takings. *E.g., Karches v. City of Cincinnati*, 38 Ohio St.3d 12, 526 N.E.2d 1350 (1988) (citing *Penn Central* in opinion holding that municipal zoning ordinance changing zoning classification from industrial to riverfront constituted impermissible taking, as applied.)

In *State ex rel. R.T.G., Inc. v. State*, 98 Ohio St.3d 1, 2002-Ohio-6716, for example, a mining company (RTG) challenged the State of Ohio's designation of 833 acres of property in which RTG owned various interests as unsuitable for mining ("USM"). The Supreme Court noted that the *Penn Central* standard applies when regulation deprives a property owner of less than 100 percent of the property's economically beneficial use. *Id.* at ¶ 35. The Court concluded that, because mineral rights are recognized under Ohio law as separate and distinct property rights, and because the state's "unsuitable for mining" designation prevented RTG from mining 1.3 million tons of coal (and rendered mining outside of the USM-designated area economically impracticable), the designation resulted in a categorical taking, even beyond the partial taking type of claim recognized in *Penn Central*. *Id.* at ¶ 57. Other courts have agreed that orders of state public utility commissions affecting utilities can amount to impermissible partial takings under the *Penn Central* test. *E.g., Pub. Serv. Co. of New Hampshire v. New Hampshire Pub. Util. Comm.*, 122 N.H. 1062, 1071-73, 454 A.2d 435 (1982) (New Hampshire Supreme Court citing *Penn Central* in support of its holding that PUC order placing conditions upon the utility's future issuance of securities resulted in an unconstitutional taking without just compensation.)

The record here is replete with evidence sufficient to satisfy *Penn Central*'s three-factor test. Multiple witnesses have testified in this proceeding to the severe economic effect that a non-compensatory capacity price will have upon the Company.[8] The Commission itself found in

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[8] (*See, e.g.,* AEP Ohio Ex. 101 at 8 (Mr. Munczinski testifying that "[t]he impact on AEP Ohio's ability to be compensated for its costs has become significant due to the trend in RPM auction prices, as well as the growth in shopping by AEP Ohio customers whose CRES providers take advantage of the capacity supplied by AEP Ohio as opposed to supplying their own capacity."); *id.* at 9 (noting that aligning a state compensation mechanism with the PJM RPM price would undermine the Company's ability to provide customers with reliable and adequate service.); *id.* at 16 (noting that AEP Ohio "is not receiving adequate compensation for performing its FRR capacity obligations, and the gap between its costs and the compensation for those costs is increasing at an alarming rate. The failure to recover just and adequate compensation is threatening AEP Ohio's financial stability … [.]") *See also* AEP Ohio Ex. 104 at 3 &

its Opinion and Order that RPM rates were "substantially below all estimates provided by the parties regarding AEP Ohio's cost of capacity," and went on to find that under RPM pricing AEP Ohio "may earn an unusually low return on equity … with a loss of $240 million between 2012 and 2013." July 2 Opinion and Order at 23. And in the related *ESP* proceeding, the Company demonstrated in the record and in its post-hearing briefs the very troubling consequences of the Commission's July 2 Opinion and Order, saying:

> At this point, given that AEP Ohio would only be permitted to charge RPM pricing to CRES providers under the 10-2929 decision, the impact (excluding consideration of the additional accounting deferral that may end up providing net cost recovery of up to $188/MW-day) of RPM pricing without the RSR yields **a projected 1.1% ROE total company in 2013, with a loss to the generation function**. (AEP Ohio Ex. 151 at 11.) **Further, the comparable projected ROE associated with the $188/MW-day rate adopted in the 10-2929 decision (absent an RSR) would be only 5.9% for 2013**. AEP Ohio has already addressed additional financial harm scenarios in its initial brief (at pages 43-46.) Even more disturbing, as discussed in its initial brief, is that **these projections involved negative or barely positive returns on a generation function basis**. (AEP Ohio Ex. 151 at 11-13; Tr. XVII at 4879.)

(AEP Ohio July 9, 2012 Reply Brief in Case No. 11-346-EL-SSO at 29) (emphasis added; internal footnotes omitted.) Although some intervenors took issue with these predictions of financial harm in the *ESP* case (with FES, for example, contending that AEP Ohio uses financial harm as "code for receiving less revenue than AEP Ohio would like to receive"), AEP Ohio

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Ex. WAA-1 (Mr. Allen prepared an estimate of AEP Ohio's earnings for 2012 and 2013 under the scenario that AEP Ohio was only able to charge a rate for its capacity that was equal to the RPM price, concluding that earnings would be $344M in 2012 with a ROE of 7.6% and $109M in 2013 with a ROE of 2.4%.) *See also* Tr. IV at 802 (RESA witness Ringenbach conceding that rates would be confiscatory if AEP Ohio incurred costs that were not being reimbursed). *See also* Tr. III at 677, 697 (Mr. Allen testifying at hearing that a decision which forced the Company to provide RPM-priced capacity to CRES providers would cause AEP Ohio to suffer significant financial harm, and that financial harm to the Company is implicit in any requirement that it provide the use of its assets at a rate below its costs.) *See also id.* at 701 (Mr. Allen testifying that if the Company is required to provide CRES providers with capacity at RPM, the Company's earnings would suffer a $240M decrease between 2012 and 2013).)

noted that the only evidence FES offered in support of its claim was that the Company earned reasonable returns when charging RPM prices *in the past,* when energy prices were high, RPM capacity prices were many multiples higher, and shopping levels were low. (*Id.* at 30, citing FES Initial Br. at 113-116.)

There is also compelling evidence that the Commission's failure to institute a state compensation mechanism that will compensate the Company for the true embedded costs of capacity will interfere with AEP Ohio's distinct investment-backed expectations.[9] Indeed, the Commission can take notice of the fact that, in an immediate response to its Opinion and Order, Standard & Poor's Ratings Service issued the following statement the next day, on July 3, 2012 regarding the impact on AEP Ohio's credit metrics:

> [I]n the longer term we believe this change will likely erode credit quality. We would consider deferrals of changes in capacity prices to be unsupportive of credit quality because cash flow would decline, and could result in financial measures inconsistent with the current rating. In addition, the business risk profile of the company is pressured as it transitions to an unregulated model for generation in Ohio.

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[9] *See, e.g.,* AEP Ohio Ex. 101 at 14 (Mr. Munczinski testifying that cost-based compensation for capacity would "provide the investment community with more certainty, eliminate some regulatory risk, and ensure sustained investment within the state of Ohio. Without the Commission's support of an appropriate and reasonable cost compensation mechanism, it would be imprudent and irresponsible for AEP Ohio to invest long-term capital in an unclear, unstable cost recovery environment.") *See also id.* at 13 (Mr. Munczinski *quoting the Commission* for the proposition that "PJM's rules do not recognize the need to recover reasonable investment costs nor the timely repayment of debt – bedrock principles required for financing an industry as capital intensive as the electricity industry."); *id.* (Mr. Munczinski again quoting the Commission for the proposition that "Generator owners cannot long survive on recovery of the short run marginal cost of energy alone, but must consistently recover some of their long run marginal costs as well.") *See also* AEP Ohio Ex. 142 at 21-22 (Mr. Allen noting that the Company's ROE would be a reasonable 12.2% in 2013 if the Commission allowed the Company to recover $355.72/MW-day in capacity charges to CRES providers.)

(Standard & Poor's Research, July 3, 2012, *available at*: www.standardandpoors.com.)[10] In the ESP proceeding, AEP Ohio witness Dr. Avera predicted precisely this kind of negative reaction from the financial community, saying:

> So I think the Commission should properly be on notice that the investment community is concerned, and that means that to put money in this company investors need higher compensation. And if their concerns become more pronounced, it could, in the extreme, lead to an inability to raise funds to make the capital investment that customers need in order to keep the lights on.

(*ESP* Tr. XVII at 4725.) Another *ESP* witness for the Company, Renee Hawkins, testified in detail about three major rating agencies' reactions to the Commission's decision to revoke the Stipulation that had previously resolved the capacity charge issue, including Standard & Poor's February 27, 2012 Bulletin cautioning that "credit quality could erode for some utilities if any transition decisions *** *disallow recovery of prudently incurred costs*, or lead to extended periods of suppressed returns and weakened credit metrics." (*ESP* AEP Ohio Ex. 102 at 11-12 & Ex. RVH-5 (emphasis added).) Based on the record developed jointly in the related capacity and *ESP* cases, it is beyond any serious dispute that the Commission's Opinion and Order here, unless modified, surely interferes with AEP Ohio's distinct investment-backed expectations.

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[10] On July 13, 2012, OCC filed a motion to strike the Standard & Poor's Research attachment to the Company's post-hearing reply brief. On July 18, 2012, the Company responded to OCC's motion by noting, *inter alia*, that the Commission previously denied a motion to strike similar financial reports appended to Company witness Hawkins' pre-filed testimony. The Company further noted that the Standard & Poor's attachment was not being offered for the truth of the matters asserted (*i.e.* the opinions of the investors), but instead to reflect investor reactions on the instability in the regulatory environment in Ohio and the impact of that on credit ratings. In any event, the Commission is not strictly bound by the Rules of Evidence and has allowed the admission of hearsay when appropriate. *In Re. Ohio Power Company*, Case No. 11-346-EL-SSO, *et al.*, Entry at 13 (Dec. 14, 2011). Moreover, analysts' reports such as the Standard & Poor's Research attachment are admissible under the "market reports" exception to the hearsay rule. *See* Evid. R. 803(17); *see also Marting Realty, Inc. v. Marks*, 5th Dist. No. 12296, 1986 WL 4647, *3 (Apr. 16, 1986) ("credit reports are held to be highly reliable by the business world and should be admitted where such reliability is not challenged.")

As for the character of the Commission's Order, the Commission has adopted a state compensation mechanism that will <u>not</u> fairly compensate AEP Ohio for the actual embedded costs of capacity, even while agreeing that "the state compensation mechanism *should be based on the Company's costs*." July 2 Opinion and Order at 22. The Commission's Opinion and Order, if uncorrected on rehearing, will have a significant and potentially devastating economic impact on AEP Ohio. The Commission itself has recognized that AEP Ohio has committed substantial investments to fulfill its FRR obligations and meet its obligation to provide an SSO. For these reasons, and based on the partial taking doctrine set forth in *Penn Central* and other cases, the Commission's Order unconstitutionally takes the Company's property without just compensation, and the Commission should grant the Company's Application for Rehearing to address the Company's legitimate concerns and to modify its Order as state law and the Constitution require.

II. It Was Unreasonable And Unlawful For The Commission To Adopt A Cost-Based State Compensation Mechanism And Then Order AEP Ohio To Only Charge CRES Providers RPM Pricing Far Below The Cost-Based $188.88/MW-Day Rate That The Commission Determined Was Just And Reasonable.

While the Company disagrees with the $188.88/MW-day state compensation mechanism that the Commission established in reliance upon Staff/EVA's flawed and unreasonable energy credit for the reasons discussed above, the Commission correctly determined in its July 2 Opinion and Order that "it is necessary and appropriate to establish a cost-based state compensation mechanism for AEP-Ohio." July 2 Opinion and Order at 22. Specifically, the Commission held:

> We conclude that the state compensation mechanism for AEP-Ohio should be based on the Company's costs. Although Staff and intervenors contend that RPM-based capacity pricing is just and reasonable, we note that the record indicates that the RPM-based capacity pricing has decreased greatly since the December 8, 2010,

> entry was issued, and that the adjusted RPM rate currently in effect is substantially below all estimates provided by the parties regarding AEP-Ohio's cost of capacity. * * * In short, *the record reveals that RPM-based capacity pricing would be insufficient to yield sufficient reasonable compensation for AEP-Ohio's provision of capacity to CRES providers in fulfillment of its FRR capacity obligations*.
> * * *
> Therefore, with the intention of adopting a state compensation mechanism that achieves a *reasonable* outcome for all stakeholders, the Commission directs that the state compensation mechanism shall be based on the costs incurred by the FRR Entity for its FRR capacity obligations * * * [.]

Id. at 22-23 (emphasis added). Despite its recognition of a cost-based capacity price as the just and reasonable state compensation mechanism, the Commission nonetheless determined that "RPM-based capacity pricing will promote retail electric competition" and "direct[ed] AEP-Ohio to charge CRES providers the final zonal PJM RPM rate in effect for the rest of the RTO region for the current PJM delivery year * * * [.]" *Id.* at 23.

To account for the difference between the price it determined to be just and reasonable and the fraction of that price it authorized the Company to recover from CRES providers, the Commission stated:

> [T]he Commission will authorize AEP Ohio to modify its accounting procedures, pursuant to Section 4905.13, Revised Code, to defer incurred capacity costs not recovered from CRES provider billings during the RSP period to the extent that the total incurred capacity costs do not exceed the [$188.88/MW-day] capacity pricing that we approve below. Moreover, the Commission notes that we will establish an appropriate recovery mechanism for such deferred costs and address any additional financial considerations in [Case No.] 11-346 * * * [.]

Id.

The Commission's decision to adopt a cost-based state mechanism and then nonetheless order the Company to charge CRES providers RPM pricing was unreasonable and unlawful for the following reasons: (1) the Commission lacks authority authority to determine that a cost-based rate is just and reasonable and then order the Company to charge a non-cost-based rate; (2) the Commission's decision unreasonably failed to provide for a mechanism to recover the deferrals it created; (3) the decision enables and promotes artificial, uneconomic, and subsidized competition at the Company's expense; (4) it also unreasonably and unnecessarily extends RPM pricing to CRES providers serving customers who already shopped based on capacity priced at $255/MW-day; and (5) the Commission unreasonably and unlawfully relied upon provisions in R.C. Chapter 4928 after expressly holding that that chapter is inapplicabl*e* to AEP Ohio's capacity service.

A. If the state compensation mechanism is cost-based and the Commission found AEP Ohio's cost of providing capacity to be $188.88/MW-day, then it is unreasonable and unlawful for the Commission to require AEP Ohio to charge anything other than $188.88/MW-day.

The Commission's decision to disregard its own determination that a $188.88/MW-day <u>cost-based</u> rate is the lawful rate that the Company should receive from CRES providers for the capacity it supplies them and instead order the Company to supply CRES providers with capacity for a fraction of its costs is patently unreasonable. As the Commission itself has noted, the Commission is "a creature of statute" and "may exercise only the authority conferred upon it by the General Assembly." July 2 Opinion and Order at 12, *citing Tongren v. Pub. Util Comm*., 85 Ohio St.3d 87, 88 (1999). R.C. 4905.22 vests the Commission with the authority to allow an electric utility to collect only those charges that are "just and reasonable." It does <u>not</u> authorize the Commission to require a utility to collect less that a just and reasonable charge. Indeed, nowhere in the Ohio Revised Code is the Commission granted such authority. Accordingly, because the Commission lacks statutory authority to require AEP Ohio to charge less than the cost-based rate that the Commission determined to be just and reasonable, the Commission should grant rehearing and authorize the Company to charge CRES providers a rate equivalent to the Company's full embedded cost of capacity.

B. It was unreasonable and unlawful for the Commission to authorize AEP Ohio to collect only RPM pricing and require deferral of expenses up to $188.88/MW-day without simultaneously providing for recovery of the shortfall.

As discussed above, the Commission's July 2 Opinion and Order limits AEP Ohio to the collection of only a fraction of its costs of capacity and requires deferral of the Company's capacity costs above that price up to the Commission-determined $188.88/MW-day "cost of capacity." Notably absent from the Opinion and Order is a provision authorizing AEP Ohio to recover the amounts deferred. Rather, the Commission states that it will establish "an appropriate recovery *mechanism*" (*see* July 2 Opinion and Order at 23 (emphasis added)) in another proceeding that, as of the date of the Commission's decision in this proceeding, had already completed hearing and initial post-hearing briefing. The July 2 Opinion and Order does <u>not</u>, however, authorize the Company to <u>actually recover</u> those deferrals.

This treatment of the deferrals that the Commission itself created is inappropriate and unreasonable. This fragmented approach is inappropriate, especially because the two cases involve a host of unrelated issues and will be subject to independent rehearing and appeal processes. It was unreasonable to bifurcate a single decision into two separate proceedings being decided at different times. Without the existence of an ESP decision that authorizes recovery of the capacity cost deferrals, the decision in this case to provide a discount is unreasonable and unlawful. The Commission should grant rehearing to reverse its decision creating the below-cost discount and instead authorize the Company to collect its full cost of capacity from CRES providers.

C. It is unreasonable and unlawful for the Commission to require AEP Ohio to supply capacity to CRES providers at a below-cost rate to promote artificial, uneconomic, and subsidized competition.

The Commission appears to have based its decision to require the Company to collect only a fraction of its costs of capacity from CRES providers on the belief that "RPM-based capacity pricing will further the development in the competitive market" and "promote retail electric competition." July 2 Opinion and Order at 23. Unfortunately, the Company foresaw the possibility of such a decision. (*See* AEP Ohio Initial Br. at 18-19, 29-31; AEP Ohio Reply Br. at 12 ("In any case, if the Commission is to establish a cost-based rate, it should not reduce the rate simply to boost shopping statistics – especially given the financial harm to AEP Ohio associated with RPM pricing.").) Nonetheless, the Commission unreasonably and unlawfully ordered that AEP Ohio to collect only an RPM-based charge for the capacity it supplies to CRES providers.

As the Company demonstrated through witness testimony and post-hearing briefing, RPM-based capacity pricing does nothing more than promote artificial, uneconomic, and subsidized "competition," and does not foster durable, legitimate competition. AEP Ohio witness Graves explained that adopting an RPM-based charge will induce an uneconomic bypass opportunity for CRES providers at the expense of the Company's customers and the Company itself, and an RPM-based charge will not foster efficient competition. (AEP Ohio Initial Br. at 18; AEP Ohio Ex. 105 at 7.)

It is a matter of basic economics that CRES providers will increasingly enter the market the lower their price of capacity drops – there is little doubt that market entry would increase even more rapidly if the Company were ordered to charge nothing for its capacity. That increase in "competition," however, is unsustainable. It will serve only to create a market of free riders that likely could not compete if capacity were priced at a reasonable amount and will not foster the development of a robust and efficient market for competitive retail electric service in Ohio. (AEP Ohio Initial Br. at 18.) Such artificial and manufactured "competition" for "competition's" sake does not benefit customers in the long run and, in fact, is likely to harm customers (shopping and nonshopping), AEP Ohio, and the state economy. (*See* AEP Ohio Initial Br. at 18-19, 29-31.)

The Commission's July 2 Opinion and Order disregards the harms to customers, the Company, and the State as a whole that are likely to occur in favor of flooding the market with unsustainable competitive retail electric service. That decision is unreasonable and unlawful and should be reversed and modified on rehearing.

D. It was unreasonable and unlawful, as well as unnecessary, for the Commission to extend RPM pricing to customers that already switched based on a capacity price to CRES providers of $255/MW-day.

In the July 2 Opinion and Order, the Commission "direct[ed] AEP-Ohio to charge CRES providers the adjusted final zonal PJM RPM rate in effect for the rest of the RTO region for the current PJM delivery year." July 2 Opinion and Order at 23. The Commission did so, as discussed above, to "promote retail electric competition." *Id.* In addition to the other reasons discussed elsewhere in this application for rehearing, the Commission's decision was unreasonable in that it failed to account for the fact that a significant number of customers switched to competitive retail electric service when the price of capacity was $255/MW-day.

As the Company explained in its post-hearing briefs, AEP Ohio witness Allen demonstrated, and RESA witness Ringenbach confirmed, that CRES providers have made offers and customers have switched when at a capacity charge of $255/MW-day. (AEP Ohio Initial Br. at 17-18.) Thus, retail electric competition was being promoted and was occurring at that price. Those contracts were never based on RPM pricing, and they were entered into well after this proceeding commenced; thus, there is no concern that a customer or CRES provider entered into such an agreement with the expectation the capacity charge would be based on RPM. For this reason, it is unnecessary for the Commission to intervene by ordering that CRES providers pay AEP Ohio RPM rates with respect to those retail contracts that were entered into based on $255/MW-day pricing.

Through its July 2 Opinion and Order, the Commission has created a significant windfall for CRES providers serving customers who entered into retail contracts based on $255/MW-day capacity pricing – to the Company's financial detriment – and there is no requirement or guarantee that those retail customers will realize any financial benefit. Now, instead of receiving $255/MW-day for capacity supplied to the CRES provider serving a customer under such an agreement, the Company will receive a near-zero RPM-based price and a deferral, which will total less than the amount to which it was previously entitled, and which has no recovery mechanism. This result is unreasonable and unlawful. The Commission should correct this shortcoming on rehearing and except from its decision any contracts entered into for which capacity was priced at $255/MW-day.

E. It was unreasonable and unlawful for the Commission to rely critically on the policies set forth in R.C. 4928.02 and 4928.06(A) to justify reducing CRES providers' price of capacity after the Commission found that R.C. Chapter 4928 does not apply to AEP Ohio's capacity charges to CRES providers.

Addressing IEU Ohio's contention that the Commission lacks statutory authority to approve a cost-based rate for capacity available to CRES providers in the Company's service territory, the Commission stated that it is not required to determine whether the service is competitive or non-competitive under R.C. Chapter 4928 because it is not a retail service. July 2 Opinion and Order at 13. Specifically, the Commission stated:

> IEU-Ohio contends that the Commission must determine whether capacity service is a competitive or noncompetitive retail electric service pursuant to Chapter 4928, Revised Code. Section 4928.05(A)(1), Revised Code, provides that competitive retail electric service is, to a large extent, exempt from supervision and regulation by the Commission, including pursuant to the to the Commission's general supervisory authority contained in Sections 4905.04, 4905.05, and 4905.06, Revised Code. Section 4928.05(A)(2), Revised Code, provides that noncompetitive retail electric service, on the other hand, generally remains subject to supervision and regulation by the Commission. Prior to determining whether a retail electric service is competitive or noncompetitive, however, we must first confirm that it is indeed a retail electric service. Section 4928.01(A)(27), Revised Code, defines a retail electric service as "any service involved in supplying or arranging for the supply of electricity to ultimate consumers in this state, from the point of generation to the point of consumption." In this case, the electric service in question (*i.e.*, capacity service) is provided by AEP-Ohio to CRES providers, with CRES providers compensating the Company in return for its FRR capacity obligations. Such capacity service is not provided directly by AEP-Ohio to retail customers. Although the capacity service benefits shopping customers in due course, they are initially one step removed from the transaction, which is more appropriately characterized as an intrastate wholesale matter between AEP Ohio and each CRES provider operating in the Company's service territory. As AEP-Ohio notes, many of the parties, including the Company, regard the capacity compensation assessed by the Company to CRES providers as a wholesale matter. We agree that *the provision of capacity for CRES providers by AEP-Ohio, pursuant to the Company's FRR capacity obligations, is not a retail electric service as defined by Ohio law. Accordingly, we find it unnecessary to determine whether capacity service is considered a competitive or noncompetitive service under Chapter 4928, Revised Code*.

Id. (emphasis added, internal record citations omitted). The Commission thus determined that R.C. Chapter 4928 is inapplicable to AEP Ohio's capacity charges to CRES providers. *See also id.* at 22 ("Although Chapter 4928, Revised Code, provides for market-based pricing for retail electric generation service, *those provisions do not apply* because, as we noted earlier, capacity is a wholesale rather than a retail service.") (emphasis added).

The Commission went on, however, to order that the Company supply capacity to CRES providers at RPM-based prices because RPM-based capacity pricing because it would "advanc[e] the state policy objectives of Section 4928.02, Revised Code, which the Commission is required to effectuate pursuant to Section 4928.06(A), Revised Code." *Id.* at 23. That rationale plainly contradicts the Commission's own determination that R.C. Chapter 4928 does not apply to AEP Ohio's capacity charges.

The Commission is not authorized to pick and choose to apply only some provisions of Chapter 4928 to the Company's capacity service. Either the service is a retail electric service, and therefore subject to R.C. Chapter 4928, or it is not. The Commission went to great lengths to explain why AEP Ohio's capacity service is a wholesale and not a retail electric service. It may not make that determination and then rely on inapplicable statutory provisions to justify its order to reduce CRES providers' cost of capacity to a fractional RPM-based rate. Accordingly, the Commission's decision to reduce CRES providers' cost of what the Commission has concluded is wholesale capacity below the cost-based charge to which the Company is entitled was unreasonable, without statutory basis, and unlawful. It should be reversed on rehearing and the Company should be authorized to collect a capacity charge from CRES providers equivalent to its embedded costs.

III. It Was Unreasonable And Unlawful For The Commission To Fail To Address The Merits Of AEP Ohio's January 7, 2011 Application For Rehearing, Which The Commission Granted On February 2, 2011 For The Purpose Of Further Considering It, In The July 2 Opinion and Order.

The Commission initiated this proceeding by entry on December 8, 2010, in response to AEP Ohio's November 2010 application to the Federal Energy Regulatory Commission ("FERC") proposing to change the basis for compensation for its capacity costs under Section D.8 of Schedule 8.1 of the Reliability Assurance Agreement ("RAA") from an RPM-based rate to a cost-based rate. *See* December 8, 2010 Entry at 1. The Commission sought comments from interested parties on a number of issues that the Commission believed would assist it to "determine the impact of the proposed change to AEP-Ohio's capacity charges." *Id*. at 2. The Commission also adopted RPM-based price for capacity as the state compensation mechanism during the pendency of its review. *Id.*

AEP Ohio filed an application for rehearing of the Commission's December 8, 2010 Entry ("December 8 Entry") on January 7, 2011, arguing that the entry was unreasonable and unlawful in several respects. *See* January 7, 2011 Appl. for Rehearing. The Company argued, *inter alia*, that the Commission lacks jurisdiction under both Federal and Ohio law to issue an order affecting wholesale rates regulated by the FERC and that portions of the Commission's December 8 Entry conflict with and are preempted by federal law. *Id.* On February 2, 2011, the Commission granted the Company's application for rehearing for "further consideration of the matters specified" therein. February 2, 2011 Entry on Rehearing at 2.

The Commission has not issued a decision on the merits regarding the arguments raised in the Company's January 7, 2011 application for rehearing. The July 2 Opinion and Order, while apparently intended to address all outstanding issues in this proceeding, does not mention the January 7, 2011 application for rehearing and does not specifically address any of the arguments raised therein. The Commission thus has erred in failing to either grant or deny the January 7, 2011 application for rehearing. This error should be corrected on rehearing of the July 2 Opinion and Order.

CONCLUSION

For the foregoing reasons, the Commission should grant rehearing and should reverse and modify its July 2 Opinion and Order.

Respectfully submitted,

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On behalf of Ohio Power Company

CERTIFICATE OF SERVICE

I hereby certify that a copy of the *Application for Rehearing of Ohio Power Company* was served by electronic mail upon counsel for all other parties of record in this case on this 20th day of July, 2012.

//s/ Steven T. Nourse
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