

**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Ohio )  
Edison Company, The Cleveland Electric )  
Illuminating Company and The Toledo )  
Edison Company for Authority to Provide for )  
a Standard Service Offer Pursuant to R.C. )  
4928.143 in the Form of an Electric Security )  
Plan )

Case No. 14-1297-EL-SSO

**REHEARING TESTIMONY OF JOSEPH P. KALT, PH.D.  
ON BEHALF OF THE PJM POWER PROVIDERS GROUP  
AND THE ELECTRIC POWER SUPPLY ASSOCIATION**

**June 22, 2016**

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1 **I. Introduction, Purpose of Testimony, and Summary of Conclusions**

2 **Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 **A1.** My name is Joseph P. Kalt. I am the Ford Foundation Professor (Emeritus) of  
4 International Political Economy at the John F. Kennedy School of Government, Harvard  
5 University. The Kennedy School of Government is Harvard’s graduate school for public  
6 policy and public administration. I also work as a senior economist with Compass  
7 Lexecon. Compass Lexecon is an economics consulting firm with offices in various  
8 cities throughout North America, South America, and Europe. My business address is  
9 4280 N. Campbell Avenue #200, Tucson, Arizona 85718. I have previously provided  
10 testimony on behalf of the PJM Power Providers Group (“P3 Group”) and the Electric  
11 Power Supply Association (“EPSA”).<sup>1</sup> My complete curriculum vita was attached  
12 thereto and has not materially changed.

13 **Q2. WHAT IS THE PURPOSE OF YOUR REHEARING TESTIMONY?**

14 **A2.** I have been asked by P3<sup>2</sup> and EPSA<sup>3</sup> to review and analyze the proposal of Ohio Edison  
15 Company, The Cleveland Electric Illuminating Company and The Toledo Edison

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<sup>1</sup> Direct Testimony of Joseph P. Kalt, Ph.D. on behalf of the PJM Power Providers Group and the Electric Power Supply Association, December 22, 2014, errata filed January 30, 2015 (hereinafter Kalt Direct Testimony), Supplemental Testimony of Joseph P. Kalt, Ph.D. on behalf of the PJM Power Providers Group and the Electric Power Supply Association, May 11, 2015 (hereinafter Kalt Supplemental Testimony), and Second Supplemental Testimony of Joseph P. Kalt, Ph.D. on behalf of the PJM Power Providers Group and the Electric Power Supply Association, December 30, 2015 (hereinafter Kalt Second Supplemental Testimony).

<sup>2</sup> P3 is a non-profit organization whose members are energy providers in the PJM Interconnection LLC (“PJM”) region, conduct business in the PJM balancing authority area, and are signatories to various PJM agreements. Altogether, P3 members own over 84,000 megawatts (“MWs”) of generation assets, produce enough power to supply over 20 million homes, and employ over 40,000 people in the PJM region, representing 13 states and the District of Columbia. This testimony does not necessarily reflect the specific views of any particular member of P3 with respect to any argument or issue, but collectively presents P3’s positions.

1 Company (“Companies’ Proposal”) described in the Rehearing Testimony of Eileen M.  
2 Mikkelsen in this proceeding,<sup>4</sup> and to evaluate whether approval of the Companies’  
3 Proposal by the Public Utilities Commission of Ohio (“PUCO”) would be in the public  
4 interest.

5 **Q3. WHAT WAS THE PURPOSE OF YOUR PREVIOUS TESTIMONIES IN THIS**  
6 **MATTER?**

7 **A3.** I was asked by the P3 Group and EPSA to provide an economic analysis of the Electric  
8 Security Plan (“ESP”) filed by the Companies. As detailed in my previous testimonies,  
9 the Companies initially proposed to implement an ESP which would entail a long-term  
10 Power Purchase Agreement (“PPA”) whereby they would purchase generating unit-  
11 contingent power for first 15 years, and then (upon modification of the proposal) eight  
12 years, from their Federal Energy Regulatory Commission (“FERC”) regulated affiliate  
13 company, FirstEnergy Solutions Corporation (“FES”).

14 **Q4. PLEASE DESCRIBE THE COMPANIES’ LATEST PROPOSAL.**

15 **A4.** The Companies have again modified their ESP proposal following a FERC order  
16 indicating that the proposed PPA would be subject to FERC review prior to going into

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<sup>3</sup> EPSA is a national trade association representing leading competitive power suppliers, including generators and marketers. Competitive suppliers, which collectively account for 40 percent of the installed generating capacity in the United States, provide reliable and competitively priced electricity from environmentally responsible facilities. EPSA seeks to bring the benefits of competition to all power customers. This testimony does not necessarily reflect the specific views of any particular member of EPSA with respect to any argument or issue, but collectively presents EPSA’s positions.

<sup>4</sup> Rehearing Testimony of Eileen M. Mikkelsen on behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company, Case No. 14-1297-EL-SSO, May 2, 2016, (hereinafter Mikkelsen Rehearing Testimony).

1 effect.<sup>5</sup> The Companies' revised proposal now abandons the originally proposed PPA.  
2 Instead, as Ms. Mikkelsen describes, the Companies now seek to modify the structure of  
3 the proposed Retail Rate Stability Rider ("Rider RRS") so that it may be implemented  
4 without requiring an explicit PPA between the Companies and FES. In doing so, Ms.  
5 Mikkelsen indicates that costs and operations under Rider RRS would not be based on  
6 actual experience over time (as originally proposed), but instead would be replaced with  
7 the Sammis and Davis-Besse cost (plus a profit component) and volumetric output and  
8 capacity projections that the Companies submitted at the commencement of this  
9 proceeding.<sup>6</sup> On the other hand, the plants' revenues from energy and capacity sales will  
10 be projected annually by applying contemporaneous price expectations to originally-  
11 projected operations, and then trueing up revenues against actual prices quarterly.<sup>7</sup>

12 These calculations would be used to determine the cost to the ratepayers of their  
13 guaranteeing recovery of Sammis and Davis-Besse projected costs. The difference  
14 between projected revenues and originally projected costs plus profit -- reconciled on a  
15 quarterly basis -- would now be used to calculate Rider RRS. When calculated costs plus  
16 profit are greater than calculated revenues, the Companies' captive local ratepayers  
17 would pay the difference to the Companies. On the other hand, if revenues are greater  
18 than costs plus profit, any gain that might be realized would be flowed through to  
19 ratepayers by the Rider RRS.

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<sup>5</sup> Mikkelsen Rehearing Testimony at 4:5-11.

<sup>6</sup> Mikkelsen Rehearing Testimony at 5:10-15.

<sup>7</sup> Mikkelsen Rehearing Testimony at 7:17-22.

1 **Q5. WHAT CONCLUSIONS DO YOU REACH REGARDING THE COMPANIES’**  
2 **REVISED RIDER RRS PROPOSAL?**

3 **A5.** First, while presented as a new and different proposal that does not entail a PPA, the  
4 underlying economics are indistinguishable from a PPA between the owner of the  
5 Sammis and Davis-Besse plants and a power marketer, with the power marketer agreeing  
6 to purchase the plants’ output at a predetermined price set equal to the plants costs plus a  
7 profit, and then taking on the risk of reselling the power in the hopes that market prices  
8 might turn out to be higher than the purchase price under the marketer’s PPA. If that  
9 turns out to be the case, the marketer in this PPA would realize what ratepayers would  
10 realize – i.e., the difference between risky market-driven revenues and the price paid  
11 under the PPA to acquire the power for resale. On the other hand, the marketer has taken  
12 on risks that the generation plant owners would otherwise bear: If market-driven  
13 revenues turn out to be less than the “cost plus profit”-based price paid to acquire the  
14 power, the marketer can only resell the power at a loss.

15 By the same token, captive ratepayers under the Companies’ revised proposal  
16 would lose the same amount if the “cost plus profit”-based guarantee to the Companies  
17 turns out to be greater than the plants’ simulated market-driven revenues (i.e., with prices  
18 of energy and capacity as provided by the wholesale markets and assuming originally  
19 projected plant volumetric operations). In that case, the Rider RRS would impose the  
20 difference between market-driven revenues and pre-established costs plus a profit as a  
21 payment obligation of ratepayers. But for being locked into the effective PPA with the  
22 Companies, ratepayers could acquire the same amount of power at lower cost in the open  
23 marketplace with market-driven prices; the Rider RRS would have them pay more than

1 this to the Companies when market-driven revenues are insufficient to cover the pre-set  
2 “cost plus profit” of the plants.

3 In short, the Companies’ revised proposal would force captive retail ratepayers to  
4 take on a role they would not otherwise choose themselves – the role of a power marketer  
5 willing to absorb all of the marketplace risks of a generation company’s two power plants.  
6 No matter how the proposal is dressed up, and regardless of whether it is technically  
7 structured as a purchased power agreement, it would use the captivity of retail ratepayers  
8 under state regulation to underwrite the costs plus profit, and take on the risks, of the  
9 Sammis and Davis-Besse plants. For reasons I have set out previously, this can only  
10 distort federally-regulated wholesale power markets and is extremely unsound regulatory  
11 policy. It is contrary to the overall public interest.<sup>8</sup>

12 **Q6. WHILE THE COMPANIES’ REVISED PROPOSAL FORCES CAPTIVE**  
13 **RETAIL RATEPAYERS TO TAKE ON THE MARKETPLACE RISKS THAT**  
14 **WOULD NORMALLY BE BORNE BY GENERATORS OR MARKETERS, DO**  
15 **YOU FIND THAT THOSE RATEPAYERS WOULD NEVERTHELESS BENEFIT**  
16 **FROM THE PROPOSAL?**

17 **A6.** No. While the proponents of the proposal assert that their scheme would have a positive  
18 net present value (“NPV”) of approximately \$260 million for general ratepayers,<sup>9</sup> the  
19 Companies’ Proposal directly links retail ratepayer benefits and burdens to current power  
20 wholesale market risks and prices. Given that near term electric energy and capacity  
21 prices are [REDACTED] than the Companies previously projected, there is no reasonable

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<sup>8</sup> Kalt Direct Testimony at 8:15-21; Kalt Second Supplemental Testimony at 5:4-7.

<sup>9</sup> Mikkelsen Rehearing Testimony at 3:10-13 and Mikkelsen Workpaper November 30, 2015.

1 basis upon which to conclude that the Companies' Proposal will result in positive net  
2 benefits for captive ratepayers. In particular, simply projecting the value of the  
3 Companies' Proposal to ratepayers based on current power market data—as the  
4 Companies now propose to do—I find that captive ratepayers face net costs of just over  
5 \$2.7 billion.

6 Under the Companies' Proposal, captive ratepayers in Ohio would immediately  
7 start off “in the hole,” with market-driven revenues far less than costs under the Rider  
8 RRS. The initial Rider RRS values will be set based on futures market prices as of  
9 March, 2016. My analysis shows that the resulting projected revenues under Rider RRS  
10 would come nowhere close to covering the costs which are now fixed under the  
11 Companies' Proposal. This means that the Companies' Proposal is an instant loser for  
12 ratepayers. Over the first two and one-half years of the Companies' Proposal, I calculate  
13 that ratepayers could face almost \$1 billion (2016 NPV) in net costs. This means that for  
14 ratepayers to realize any benefits they must accrue in the latter years of Rider RRS'  
15 proposed applicability.

16 However, Ms. Mikkelsen's own analysis of the Companies' Proposal projects  
17 benefits for the latter five and one-half years of the scheme's duration that are only \$623  
18 million (2016 NPV). For the proposal to turn into a positive benefit for ratepayers, this  
19 estimate by the Companies of later-period benefits would have to turn out to be  
20 dramatically too low. Specifically, for the proposal to turn out to be a net winner for  
21 ratepayers, later-period power market prices would have to turn out to be far higher  
22 (thereby generating far larger later-period Rider RRS credits) than the forecasts made by  
23 the Companies when originally setting forth their original proposal in 2014. As I have



1 previously shown, those levels of power prices are completely unsupported by the  
2 evidence.<sup>10</sup> In fact, based on the best data available, the realization of ratepayer benefits  
3 under the Companies' Proposal requires not only [REDACTED] to levels  
4 projected by the Companies in 2014, but also [REDACTED]  
5 [REDACTED]. Under the Companies' Proposal, it is  
6 effectively certain that ratepayers will be on the hook for hundreds of millions of dollars  
7 of payments.

8 Second, the Companies' Proposal continues to claim that Rider RRS will stabilize  
9 retail electricity prices for ratepayers.<sup>11</sup> In making such claims of rate stabilization,  
10 however, the Companies continue to produce absolutely no new evidence, only assertion.  
11 As I have previously found, however, the evidence on implied links between wholesale  
12 spot market power prices in PJM Interconnection LLC ("PJM") and retail rates in the  
13 Companies' service territories shows that: (i) there is no relationship indicating that the  
14 volatility actually experienced in PJM's wholesale power prices translates into volatility  
15 of retail rates in the Companies' service territories;<sup>12</sup> and (ii) competition in the retail  
16 marketplace under Ohio's system of customer choice is already satisfying, and can only  
17 be expected to continue to satisfy, consumers' demands for retail rate stability.<sup>13</sup> There is  
18 no reason to believe that the Companies' Proposal will affect, much less dampen, retail  
19 rate volatility.

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<sup>10</sup> See Kalt Direct Testimony at 48:10-19; Kalt Second Supplemental Testimony at 11:17-16:9.

<sup>11</sup> Mikkelsen Rehearing Testimony at 4:18-22.

<sup>12</sup> Kalt Direct at 40:3-13; Kalt Supplemental Testimony at 25-29.

<sup>13</sup> Kalt Supplemental Testimony at 26:13-27:13.

1           In fact, the Companies' Proposal could well produce greater retail rate volatility.  
2           The proposal envisions quarterly updates to Rider RRS so as to reconcile differences  
3           between annual forecasted monthly on- and off-peak PJM electric energy prices and  
4           hourly electricity spot prices realized during each quarterly time period. This means that  
5           energy price swings that can result due to short-term market volatility will translate into  
6           either increases or decreases in Rider RRS – thereby being transmitted to what retail  
7           customers pay for their electric service. As I explained in my Direct Testimony, spot  
8           market power prices are much more volatile than forward market prices.<sup>14</sup> Thus, linking  
9           the Rider RRS to wholesale spot market prices would expose ratepayers to the impact of  
10          day-to-day price movements on a quarterly basis. If anything, the Companies' proposed  
11          quarterly reconciliation would serve to increase ratepayer retail price volatility as  
12          opposed to decrease it.

13   **Q7. IS THE COMPANIES' REVISED PROPOSAL CONSISTENT WITH SOUND**  
14   **PUBLIC UTILITY REGULATION?**

15   **A7.** No. The Companies' Proposal relies on a regulatory mechanism unlike anything I have  
16          ever encountered in my career. The majority of state electric utility regulatory  
17          frameworks I have encountered rely on various forms of cost-of-service regulation, with  
18          an allowed return of and on capital and verifiable operating expenses. Cost-of-service  
19          regulation seeks to align the burdens placed on ratepayers with the costs actually incurred  
20          by the *regulated* utility(ies) providing service to ratepayers. Here, however, the  
21          Companies' Proposal would shift the risks – and the risks are costly – of *unregulated*

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<sup>14</sup> Kalt Direct at Attachment JPK-5.

1        *generation* to captive retail ratepayers. The Rider RRS would be unrelated to the  
2        Companies’ actual costs incurred to meet ratepayers’ service requirements. Instead, we  
3        have a fictional cost construct that would simply provide a tracking mechanism by which  
4        the Companies could charge or credit ratepayers and guarantee revenues to the overall  
5        FirstEnergy family sufficient to provide cost-plus-profit recovery for affiliated generation  
6        plants.

7                In short, the Companies’ revised proposal is based not on the costs the Companies  
8        as regulated utilities would incur to serve ratepayers, but instead on the difference  
9        between cost and revenue streams of unregulated generation. The Companies’ Proposal  
10       has no foundation in a cost-of-service regulation framework, or under any principles of  
11       utility regulation that I have studied in my career.

## 12    **II.    Assessment of the Companies’ Proposal**

### 13    **Q8.    PLEASE DESCRIBE THE COMPANIES’ PROPOSAL?**

14    **A8.**    As I explain above, the Companies’ Proposal is designed to take the place of an explicit  
15       PPA with FES by fixing the cost under Rider RRS based on Davis-Besse and Sammis  
16       production and capacity cost estimates filed at the beginning of this proceeding in  
17       Summer 2014.<sup>15</sup> The Companies’ Proposal envisions setting Rider RRS each year based  
18       on projected energy market and capacity market revenues, assuming generating unit

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<sup>15</sup> Ms. Mikkelsen indicates, in particular, that for generating unit production: “monthly on-peak and monthly off-peak generation output values derived from the economic dispatch model that produced the annual generation output values contained in the record will be used.” (Mikkelsen Rehearing Testimony at footnote 1.)

1 production and capacity sales are exactly equal to projections made as part of these  
2 proceedings. As Ms. Mikkelsen explains:

3 The rider will be filed annually based on forecasted forward energy  
4 prices and known capacity prices for the ATSI Zone. The rider will be  
5 trued-up quarterly to reconcile projected energy revenues with actual  
6 energy revenues based on the actual monthly average on-peak and  
7 average off-peak day-ahead locational marginal price (“LMPs”) at the  
8 AEP-Dayton (“AD”) Hub, and to reconcile actual sales and billing  
9 demands with projected amounts.<sup>16</sup>

10 Thus, each year, the Companies would project revenues based on Sammis and  
11 Davis-Besse generating unit data in the record of this proceeding as of Summer 2014.  
12 The projected revenues would then be compared to the initially projected costs (plus a  
13 profit return), resulting in either a charge or a credit to captive ratepayers.

14 **Q9. DO THE COMPANIES CLAIM THAT THEIR CAPTIVE RATEPAYERS WILL**  
15 **REALIZE OVERALL NET BENEFITS UNDER THE COMPANIES’ PROPOSAL**  
16 **AS IT IS NOW SET OUT BY MS. MIKKELSEN?**

17 **A9.** Yes. Ms. Mikkelsen continues to cite the evidence in the record (i.e., pertaining to the  
18 Companies’ prior versions of the proposal) as supporting the claim that implementation  
19 of Rider RRS would have collective net benefits for the Companies’ ratepayers totaling  
20 \$260 million in net present value over the eight-year term of the proposed plan (\$561  
21 million in nominal dollars).<sup>17</sup>

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<sup>16</sup> Mikkelsen Rehearing Testimony at 7:17-22.

<sup>17</sup> Mikkelsen Rehearing Testimony at 3:10-13.

1 **Q10. IS THIS AN ACCURATE AND REASONABLE MEASURE OF THE OVERALL**  
2 **IMPACT OF THE COMPANIES' PROPOSAL ON THEIR CAPTIVE**  
3 **RATEPAYERS?**

4 **A10.** No, it is neither accurate nor reasonable. As discussed above, the Rider RRS will  
5 generate credits or extra burdens on captive ratepayers depending on whether the rates  
6 implied by having to cover the subject plants' now *already projected* costs plus profit are  
7 less than or greater than the rates the Companies realize when they *simulate* the sale of  
8 output and capacity from the subject plants into the wholesale PJM markets. In the  
9 Companies' calculations of ratepayer impact, whether or not credits or penalties are  
10 projected to produce credits to the benefit of captive ratepayers or penalties to their  
11 detriment, turns on only one factor that the Companies have embedded in their NPV  
12 calculations: the Companies' projected wholesale market price of electricity

13 **Q11. DO YOU FIND THE COMPANIES' PROJECTIONS OF WHOLESALE**  
14 **ELECTRICITY PRICES UNRELIABLE OR UNREASONABLE?**

15 **A11.** Yes, both. Let us consider the power price forecasts that are embedded in the  
16 calculations. Inspection of the calculation of the NPV of the Companies' Proposal's  
17 impact on the Companies' ratepayers submitted by Ms. Mikkelsen reveals that the  
18 asserted overall positive NPV of \$260 million is the result of (1) sharply negative values  
19 for ratepayers in the first several years of the plan's eight-year term being more than  
20 offset by (2) substantially positive values in the later years. The early negative values  
21 arise because the calculations project that the plants' costs will exceed marketplace  
22 revenues that can be realized in the early years. The converse takes over in the later years.  
23 This pattern, which is critical to the claim of a positive NPV for ratepayers – is strikingly  
24 inconsistent with extant evidence on the factors driving the Companies' calculations.

1           The primary driver of the Companies' estimated positive NPV for ratepayers in  
 2 the latter years of the proposed pseudo-PPA is their projection of [REDACTED]  
 3 [REDACTED] over the eight-year term of the application of Rider RRS.<sup>18</sup> However, the  
 4 Companies' power price forecast—provided by their expert Mr. Rose—is now clearly  
 5 long out-of-date and [REDACTED] with actual current prices in electric power  
 6 futures markets (i.e., the futures prices that the Companies now propose to rely on each  
 7 year to initially set the Rider RRS).<sup>19</sup> With [REDACTED]  
 8 [REDACTED], the Companies' calculations of ratepayer impacts *underestimate* the harms to  
 9 ratepayers in the early years, and *overestimate* claimed positive impacts on ratepayers in  
 10 the later years. Indeed, as I show below, the latter cannot realistically be seen as positive;  
 11 the proposed plan harms ratepayers in all years and only realistically yields them a large  
 12 negative NPV.

13 **Q12. PLEASE EXPLAIN HOW THE COMPANIES' PROPOSAL CAN BE EXPECTED**  
 14 **TO BE SO COSTLY TO CAPTIVE RATEPAYERS.**

15 **A12.** We have now reached the time where the implementation of the Companies' Proposal  
 16 would have commenced—June 1, 2016.<sup>20</sup> This means that we are essentially 100%  
 17 certain that the total revenues under Rider RRS will be much lower than the total costs  
 18 over the near term, resulting in a rate increase for captive ratepayers. In particular, the  
 19 only input to Rider RRS that will vary when compared to the Companies' projections is

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<sup>18</sup> As I explained in my Second Supplemental Testimony, an outdated natural gas price forecast is a key driver of projected increases in wholesale electricity prices underlying the Companies' Proposal (Kalt Second Supplemental Testimony at 11:22-16:9).

<sup>19</sup> See the Lisowski Workpapers, Confidential Version, which reference "Witness Rose Forecast; Implied rate based on results of dispatch model" for the energy rate.

<sup>20</sup> Mikkelsen Rehearing Testimony at 2:2-6.

1 power prices. Power prices under the Companies' proposal are composed of PJM's  
2 electric energy and capacity prices. Expectations of PJM's future energy prices are  
3 regularly reported by the Intercontinental Exchange ("ICE"), which the Companies now  
4 propose to rely on to set Rider RRS. Meanwhile, PJM capacity market prices are now  
5 already known through May 2020. Thus, using current marketplace data, we can  
6 calculate the near-term costs of Rider RRS under the Companies' Proposal, and evaluate  
7 how Rider RRS can be expected to evolve in the early years of its application.

8 **Q13. HOW DOES THE COMPANIES' POWER PRICE FORECAST COMPARE TO**  
9 **THE CURRENT MARKETPLACE?**

10 **A13.** The Companies' power price forecast, prepared by Mr. Rose in 2014, [REDACTED]  
11 [REDACTED]. In particular, [REDACTED] to reflect the declines in power market  
12 prices over the past couple years. Attachment JPK-RH-1, for example, provides a  
13 comparison of the electric price forecast developed by Mr. Rose in his August 2014  
14 analysis (as applied by Mr. Lisowski in his generation dispatch analysis and still relied  
15 upon in the Companies' latest NPV calculations) against current wholesale electricity  
16 market futures prices for the AEP/Dayton trading hub. Attachment JPK-RH-1 shows that  
17 Mr. Rose's outdated wholesale energy price forecast is [REDACTED] than currently  
18 reported AEP/Dayton futures market prices. The Companies' Proposal sets Rider RRS  
19 based on current AEP/Dayton futures prices; Mr. Rose's energy price forecast is clearly  
20 now irrelevant.<sup>21</sup> Consequently, the Companies' estimated early period ratepayer impacts,

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<sup>21</sup> Mikkelsen Rehearing Testimony at 8:6-13.

1 which rely centrally on Mr. Rose's power price forecasts, are clearly wrong – and wrong  
2 in claiming net ratepayer benefits.

3 Similarly, the Companies' PJM RPM capacity price forecast is now  
4 approximately two years old. Over that period, it [REDACTED]  
5 [REDACTED] upon which Rider RRS revenue would now be based.  
6 Attachment JPK-RH-2 examines the evolution of PJM's RPM capacity prices for the  
7 Companies' PJM capacity zone (ATSI) compared to those forecasted by Mr. Rose. As  
8 Attachment JPK-RH-2 shows, Mr. Rose's 2018/2019 and 2019/2020 capacity price  
9 projections were [REDACTED] actual  
10 PJM capacity prices of \$164.77/MW-Day and \$100.00/MW-Day, respectively. [REDACTED]

11 [REDACTED]  
12 [REDACTED] Given that the Companies' Proposal  
13 relies on Summer 2014 power price projections which showed a net cost for ratepayers in  
14 early years of the application of Rider RRS, reductions in capacity revenues that are now  
15 100% certain will result in increased costs to ratepayers.

16 **Q14. HAVE YOU INVESTIGATED HOW SENSITIVE THE COMPANIES' CLAIMS**  
17 **OF NET BENEFIT TO CAPTIVE RATEPAYERS ARE?**

18 **A14.** Yes, I have. In Attachment JPK-RH-3, I have taken the NPV calculations upon which  
19 Ms. Mikkelsen relies in her Fifth Supplemental Testimony and adjusted them to reflect  
20 downward revisions to projected revenues under the Companies' Proposal based on up-



1 to-date power prices.<sup>22</sup> In particular, for wholesale electric energy prices, I gathered  
2 reported ICE on- and off-peak futures prices for the AEP/Dayton hub for March of 2016  
3 and averaged these values consistent with the Companies' Proposal for projecting going-  
4 forward revenues under Rider RRS.<sup>23</sup> I then calculated the projected revenues both for  
5 the first year of assumed application of Rider RRS (6/1/2016-5/31/2017), as well as the  
6 following seven years based on reported futures prices.<sup>24</sup> Similarly, I calculated capacity  
7 revenues through May 31, 2020, based on PJM's reported capacity prices, and then  
8 assumed a capacity price of \$132.39/MW-Day beginning on 6/1/2020 (based on the  
9 average price of the 2018/2019 and 2019/2020 PJM capacity prices), escalated over time  
10 based on PJM's escalation rate for new generation resource costs.<sup>25</sup>

11 As Attachment JPK-RH-3 shows, the application of currently reported power  
12 prices increases captive ratepayer costs significantly in the plan's early years *and*  
13 eliminates any projected future benefits. The latter effect is especially evident beginning  
14 in 2020, where now reported power prices are simply [REDACTED] than those underlying  
15 the Companies' Proposal (See Attachments JPK-RH-1-2). The results of my analysis

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<sup>22</sup> Fifth Supplemental Testimony of Eileen M. Mikkelsen on behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company, Case No. 14-1297-EL-SSO, December 1, 2015, Mikkelsen Workpaper November 30, 2015.

<sup>23</sup> See Mikkelsen Rehearing Testimony at footnote 1.

<sup>24</sup> I use reported futures prices through 2018, and then escalate remaining years based on wholesale electricity price escalation rates calculated from data provided in EIA Annual Energy Outlook 2016 Early Release. Note that the Companies' and Mr. Rose's projections do not entail offsetting effects in the form of, for example, lower coal prices for the subject plants as a result of lower oil prices. Thus, my calculations are not only sensitivity tests of the Companies' measures of purported benefits; they are corrections.

<sup>25</sup> Capacity prices were provided in the Companies' response to P3-EPSC Set 6 – INT-5. The escalation rate is approximately 3% per year using a BLS Composite Index calculated by PJM and reported in PJM's Final MOPR Floor Offer Prices for 2019/2020.

1 show that the projected impact on the Companies' captive ratepayers is a NPV *loss* of  
2 \$2.7 billion.<sup>26</sup>

3 **Q15. WHAT IF POWER PRICES INCREASE OVER THE EIGHT-YEAR TERM OF**  
4 **THE COMPANIES' PROPOSAL? COULDN'T THIS PRODUCE POSITIVE**  
5 **NET BENEFITS FOR CAPTIVE RATEPAYERS?**

6 **A15.** Given that near-term electric energy and capacity prices are [REDACTED] than the  
7 Companies previously projected, it would be highly unlikely that the Companies'  
8 Proposal would result in overall positive net benefits for captive ratepayers. The analysis  
9 of Attachment JPK-RH-3 shows that the Companies' claims that their captive ratepayers  
10 would benefit on net from this new proposal depend on our trusting price forecasts which  
11 are unique to their [REDACTED]. [REDACTED] than current ICE  
12 marketplace futures prices and established PJM capacity prices.

13 Consider, for example, that Ms. Mikkelsen herself reports that Rider RRS would  
14 cost retail ratepayers \$363 million through 2018 (2016 NVP) based on the Companies'  
15 forecast.<sup>27</sup> Attachment JPK-RH-3 shows that based on current market data, costs to  
16 captive ratepayers over just the first two and one-half years of the Companies' Proposal  
17 would be almost \$1 billion (2016 NPV). Thus, ratepayers stand to incur hundreds of  
18 millions of dollars of costs immediately if Rider RRS is implemented.

19 Moreover, these near-term years are those years where the marketplace data are  
20 known with the greatest degree of certainty: PJM's capacity prices are now fixed until

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<sup>26</sup> Note that I also include in my analysis the projected production and capacity of FES' 4.85% entitlement in Ohio Valley Electric Corporation.

<sup>27</sup> Mikkelsen Workpaper November 30, 2015.

1 5/31/2020, and power price levels which declined starting in late 2014, continuing  
2 through 2015, are expected by the marketplace to remain low.<sup>28</sup> Thus, in order to  
3 overcome the assured near-term costs to ratepayers, the Companies' Proposal rests on the  
4 prospect of rapidly increasing electric energy and capacity prices. However, even  
5 assuming such an increase was to occur, the increase must be so rapid and extreme as to  
6 produce net-benefits for ratepayers.

7 For example, consider the fact that Ms. Mikkelsen's estimated net benefits under  
8 Rider RRS to ratepayers over the latter five and one-half years of the Companies'  
9 Proposal are only \$623 million (2016 NPV).<sup>29</sup> During this latter time period, PJM's  
10 capacity prices are already set through 5/31/2020, meaning that "costs" to ratepayers are  
11 already "locked in" for one and one-half years of the remaining term (starting in 2019).  
12 This means that absent an unprecedented and wholly unforeseen upward shift in  
13 wholesale energy market prices in the near-term – i.e., reaching and exceeding even the  
14 Companies' now outdated power price projections – the Companies' Proposal cannot  
15 overcome the early year costs that ratepayers would bear under Rider RRS.<sup>30</sup> The  
16 Companies' Proposal is clearly a losing proposition for ratepayers.

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<sup>28</sup> "Energy market prices in 2015 decreased by almost a third from 2014 as a combined result of lower fuel prices and lower demand. The load-weighted average real-time LMP was 31.9 percent lower in 2015 than in 2014, \$36.16 per MWh versus \$53.14 per MWh." PJM Independent Market Monitor, 2015 State of the Market Report – PJM, Volume 2: Detailed Analysis, Section 1 Introduction, March 10, 2016, Monitoring Analytics, LLC, available at: [http://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2015/2015-som-pjm-volume2-sec1.pdf](http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2015/2015-som-pjm-volume2-sec1.pdf),

<sup>29</sup> Mikkelsen Workpaper November 30, 2015.

<sup>30</sup> [REDACTED] See, for example, Figure 3-35 PJM real-time, monthly and annual, loadweighted, average LMP: 1999 through 2015, PJM Independent Market Monitor, 2015 State of the Market Report – PJM, Volume 2: Detailed Analysis, Section 3 Energy Market, March 10, 2016, Monitoring Analytics, LLC, available at: [http://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2015/2015-som-pjm-volume2-](http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2015/2015-som-pjm-volume2-)

1 **III. Retail Rate Stability**

2 **Q16. PLEASE SUMMARIZE YOUR FINDINGS REGARDING THE COMPANIES’**  
3 **ASSERTION THAT RETAIL RATES WILL BE MORE STABLE AS A RESULT**  
4 **OF THE COMPANIES’ PROPOSAL.**

5 **A16.** The Companies have provided no evidence that the costs and profits for the FirstEnergy  
6 family that consumers would have to underwrite and guarantee are worth the claimed, but  
7 completely unquantified, purported benefit of retail rate stabilization.<sup>31</sup> As I have  
8 explained, Ohio electricity consumers already have unfettered access to Competitive  
9 Retail Electricity Service providers who make it their business to attract customers with  
10 price and service packages that customers want – including packages with stable retail  
11 power prices.<sup>32</sup> There is no basis for believing that consumer demand for rate stability is  
12 being underserved by the marketplace. Moreover, the majority of the Companies’  
13 customers on standard service pricing face rates set based on longer-term forward  
14 contract pricing, which hedge ratepayers from spot market volatility.

15 **Q17. EVEN THOUGH RATEPAYERS ALREADY ENJOY RETAIL RATE**  
16 **STABILITY, WHAT IMPACT WILL THE COMPANIES’ PPA PROPOSAL**  
17 **HAVE ON RETAIL CUSTOMER RATES?**

18 **A17.** The Companies’ Proposal will have two impacts on retail customer rates. First, the  
19 Companies’ captive retail customers will pay more or less in any time period (depending  
20 upon whether PJM market revenues cover the originally projected costs of the Sammis

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[sec3.pdf](#). At the same time, capacity prices would need to rise steeply, and remain at these levels throughout the term of Rider RRS.

<sup>31</sup> See also, Kalt Direct at 40:3-13; Kalt Supplemental Testimony at 25-29; and, Kalt Supplemental Testimony at 26:13-27:13.

<sup>32</sup> Ibid.

1 and Davis-Besse plants in any period), and more in NPV overall, for retail power service.  
2 Second, customers will be subject to a quarterly Rider RRS reconciliation process in  
3 which the difference between projected and actual revenues under the Companies'  
4 Proposal are passed through to customers. This will add volatility to the retail cost of  
5 service.

6 **Q18. HOW WILL THESE TWO RATE IMPACTS AFFECT RETAIL PRICES?**

7 **A18.** First, the Companies' Proposal will increase ratepayer costs by an initial estimate of  
8 approximately \$250 million.<sup>33</sup> This cost increase is based on the precise application of  
9 the Companies' Proposal for setting Rider RRS for its first year as described by Ms.  
10 Mikkelsen. Second, once these costs are allocated to the various rate classes, they will be  
11 subject to quarterly reconciliation adjustments. Thus, the impact of reconciliations under  
12 the PPA rider must then be taken into account. The combination of these two different  
13 rate impacts will determine how the Companies' Proposal will impact customer rates. In  
14 fact, the proposal could well result in greater retail rate volatility.

15 **Q19. PLEASE EXPLAIN.**

16 **A19.** The Rider RRS' quarterly reconciliation in retail ratepayers' bills could well prove to be  
17 countercyclical to the movements in wholesale prices.<sup>34</sup> This is because the Rider RRS  
18 reconciliation adjustments will occur with some lag. Thus, if a period of quite high

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<sup>33</sup> I understand that the impact of the Companies' Proposal on its various customer rate schedules will vary considerably. If I was to assume that the \$250 million was uniformly charged to all retail ratepayers, I estimate an impact of approximately \$5/MWh or .5 cents per kWh (based on estimated total retail sales of 53 million MWh).

<sup>34</sup> Kalt Supplemental Testimony at 28:6-29:3.

1 wholesale prices occurs and generates revenues in that period in excess of the costs for  
2 the period, the subsequent Rider RRS reconciliation would be expected to take the form  
3 of a bill reduction. The lag in making bill adjustments under the Rider RRS and the  
4 random walk characteristics of electricity prices mean, however, that this bill reduction  
5 would be expected to be more likely to be applied in post-spike periods in which  
6 wholesale prices have receded from their spike and are already relatively low (or, for  
7 example, reset based on forward power procurements coming after a period of weather-  
8 related elevated prices). In other words, low wholesale prices and the Rider RRS  
9 adjustment would tend, if anything, to reinforce each other, with the Rider RRS  
10 adjustments pushing rates down at the same time wholesale prices are soft.

11 Similarly, periods of relatively soft wholesale prices would tend to generate  
12 under-recovery of the costs, leaving consumers having to bear upward Rider RRS  
13 adjustments in their bills in periods when unusually low wholesale prices have passed  
14 and wholesale markets have firmed. The result is Rider RRS, upward adjustments being  
15 borne by consumers right when wholesale prices are rising. If we accept the Companies'  
16 claims that wholesale price volatility is transmitted to retail rates, the Companies'  
17 Proposal thus portends exacerbation of retail price volatility.

18 **Q20. ARE YOU SAYING THAT THE PPA PROPOSAL WOULD NEVER RESULT IN**  
19 **A MORE STABLE RETAIL RATE?**

20 **A20.** Not necessarily. There could be instances when the combination of the level and  
21 reconciliation of Rider RRS causes the customer rate to go up or down less than it would  
22 otherwise absent the rider. With reconciliations carried out quarterly and wholesale  
23 electric energy prices increasing or decreasing notably prior to reconciliation when

1 compared to the forecasted revenues, there could be a notable favorable or unfavorable  
2 impact from one quarter to the next. However, there is simply no guarantee that retail  
3 rates will always be more stable under the Companies' Proposal, or that customers will  
4 realize net benefits in the form of lower overall rates as a result of Rider RRS.

5 **Q21. DOES THIS CONCLUDE YOUR TESTIMONY?**

6 **A21.** Yes, but I reserve the right to supplement my testimony.

**CERTIFICATE OF SERVICE**

The Public Utilities Commission of Ohio's e-filing system will electronically serve notice of the filing of this document on the parties referenced on the service list of the docket card who have electronically subscribed to the case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being served (via electronic mail) on the 22nd day of June 2016 upon all persons/entities listed below:

s/ Gretchen L. Petrucci  
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## NPV OF CAPTIVE RATEPAYER IMPACTS BASED ON MARCH 2016 ENERGY PRICES 2016-24

### Attachment JAR-1 (Revised)

### Estimated Retail Rate Stability Rider (Rider RRS) Impact (\$M)

<u>Regulatory Assumptions</u>	
ROE	10.38%
Effective Tax Rate	37.44%
Assumed Debt %	50.00%
Assumed Equity %	50.00%
Cost of Debt	4.54%
WACC	7.46%

<u>Total Under (Over)</u>	<u>Nominal</u>	<u>NPV</u>	<u>IRR</u>
Total PPA Term - 15 years	(561)	(260)	22%

Note: Under recovery results in a charge under Rider RRS. Over recovery results in a credit under Rider RRS.

Line Item	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
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### Modified Rider RRS Impacts Based on March 2016 Energy Prices 2016-24

<u>TOTAL</u>	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
Projected Market Revenue	517	918	909	953	938	978	1,010	1,056	448	7,727
Projected Costs	762	1,330	1,386	1,381	1,450	1,477	1,561	1,581	688	11,616
Under (Over) Recovery	244	412	477	428	512	499	551	525	241	3,889
NPV Under (Over) Recovery	227	357	384	321	357	324	333	295	126	2,725

\*2016 is June 1 - December 31. 2024 is January 1 - May 31.

\*Numbers in parentheses signify savings to customers.