Company Exhibit_____

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 |

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**REBUTTAL TESTIMONY OF**

**DONALD MOUL**

**ON BEHALF OF**

**OHIO EDISON COMPANY**
**THE CLEVELAND ELECTRIC ILLUMINATING COMPANY**
**THE TOLEDO EDISON COMPANY**

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**October 19, 2015**

**PUBLIC VERSION**

## I. INTRODUCTION

**Q. PLEASE STATE YOUR NAME, POSITION, AND BUSINESS ADDRESS.**

A. My name is Donald Moul. I am Senior Vice President of Fossil Operations and Environmental for FirstEnergy Generation. I was formerly Vice President of Commodity Operations for FirstEnergy Solutions Corp. ("FES"). My business address is 341 White Pond Drive, Akron, Ohio 44320.

**Q. DID YOU PRESENT DIRECT AND SUPPLEMENTAL TESTIMONY IN THIS PROCEEDING?**

A. Yes.

**Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

A. The purpose of my rebuttal testimony is to respond to:

1) the Direct and Supplemental Testimony of Dr. Joseph Kalt on behalf of P3/EPSA, and Tyler Comings on behalf of Sierra Club questioning the financial need of the Davis-Besse Nuclear Power Station ("Davis-Besse") and the W.H. Sammis Plant ("Sammis") (collectively, the "Plants");
2) the Supplemental Testimony of Dr. Kalt regarding the impact of the results of PJM's Capacity Performance Plan on the Plants' financial viability;
3) the Direct Testimony of Dr. Kalt suggesting that the Plants are inefficient in PJM's energy markets;
4) the Direct and Supplemental Testimony of Mr. Comings that FES is free to terminate any purchase power agreement ("PPA") with the Companies early without consequences; and

5) the Direct Testimony of Dr. Joseph Bowring on behalf of the Independent Market Monitor regarding the proposed transaction's alleged impacts on wholesale markets.

## II. FINANCIAL VIABILITY OF THE PLANTS

**Q. DR. KALT TESTIFIES THAT A GENERATING UNIT WITH REVENUES EXCEEDING ITS AVOIDABLE COSTS HAS VALUE, AND THEREFORE FES WOULD FIND A WILLING BUYER WHICH IS A BETTER ALTERNATIVE TO RETIREMENT.[1] DO YOU AGREE?**

A. No. Any purchaser would face the same short-term uncertainty that FES faces with the Plants. If a purchaser does not know if the Plants will be recovering their avoidable costs, FES cannot expect to get proper value for the Plants. It is possible FES may get an offer for only $1 million. In that case, a business owner gets more from retirement, through salvage and maintaining control of the site for future development.

My opinion is based on actual experience. FES is all too familiar with the circumstances in which a plant is prematurely retired instead of being sold. Over the past 3 years, FES has retired a total of 27 units at 12 different plants:

- In September 2012, FES retired 17 units at 8 plants including Albright, Armstrong, Bay Shore, Burger, Eastlake, Rivesville, RP Smith and Willow Island.
- In October 2013, FES retired 5 units at 2 plants including Hatfield and Mitchell.
- In April 2015, FES retired 2 Units at Ashtabula and Lakeshore and the remaining 3 units at Eastlake.

When FES announced these retirement decisions, it did not get any reasonable offers.

[1] Kalt Direct Testimony at 44.

**Q. DR. KALT TESTIFIES THAT SAMMIS AND DAVIS-BESSE ARE LESS EFFICIENT PRODUCERS, AS COMPARED TO OTHER PRODUCERS, AND SUGGESTS THE PROPOSED TRANSACTION WILL DISPLACE OTHER "MORE EFFICIENT" GENERATION IN THE SUPPLY STACK.[2] DO YOU AGREE?**

A. No. Sammis and Davis-Besse are baseload plants with low variable costs that typically dispatch low in the supply stack. The proposed transaction will not change that. Sammis's variable costs range from [BEGIN CONFIDENTIAL] [END CONFIDENTIAL], and Davis-Besse's range from [BEGIN CONFIDENTIAL] [END CONFIDENTIAL] in 2013 dollars, so low that Davis-Besse effectively runs like a must-run unit. In comparison, Company witness Rose's forecasted energy prices in ATSI range from [BEGIN CONFIDENTIAL] [END CONFIDENTIAL] for the 2015-2031 period. Given the difference between Company witness Rose's projected energy prices and the projected levels of variable costs, it is clear that these Plants should economically dispatch low in the stack and are not expected to turn on and off hourly during the forecasted period.

**Q. MR. COMINGS TESTIFIES THAT FES UNDERESTIMATED THE PROJECTED COSTS OF THE PLANTS, SO THE PROPOSED TRANSACTION**

[2] Kalt Direct Testimony at 8, 30.

**WILL NOT DELIVER THE PROMISED BENEFITS TO CUSTOMERS.[3] DO YOU AGREE?**

A. No. Our cost forecasts are reasonably conservative. FES has operated the Plants for years and is confident, based on that experience, that these forecasts are conservatively high and are expected to cover all future costs. The actual costs of the Plants are expected to be similar to or lower than the forecasted costs, with environmental regulations not having a material effect.

We do not expect the costs of Sammis and Davis-Besse to be volatile over the next 15 years, which is why Rider RRS will work as a retail rate stabilization mechanism. The market risk the Companies' customers face over the next fifteen years comes from volatile natural gas prices, which is why it would not make sense for the generating assets supporting Rider RRS to include natural gas-fired units. If natural gas-fired units had been included, Rider RRS would not work effectively as a hedge against future natural gas price volatility. In contrast, the costs to operate Sammis and Davis-Besse are well-known.

The largest cost components at Davis-Besse are labor and depreciation, which are not subject to volatile swings. Davis-Besse's fuel costs are locked in through the Economic Stability Program period. The Davis-Besse forecast realistically represents what Davis-Besse's costs will actually be. Likewise, there is no reason to believe that the cost of the Sammis plant's largest cost component – fuel – will materially increase over the next 15 years, although the Companies' cost forecast conservatively assumes coal costs will

[3] E.g., Comings Direct at 35; Comings Supplemental at 21.

increase. Indeed, while the Sammis plant's current average cost for medium sulfur Northern Appalachian coal is [BEGIN CONFIDENTIAL] [END CONFIDENTIAL], the Companies' forecast assumes medium sulfur Northern Appalachian coal prices start at [BEGIN CONFIDENTIAL] [END CONFIDENTIAL]. Moreover, the Companies' forecast includes Mr. Rose's carbon prices in the Sammis and OVEC fuel costs, which provides additional cushion in the cost forecast to account for regulatory risk that may never occur. So the Commission can rely on the Companies' cost forecasts as conservative.

**Q. DR. KALT TESTIFIES THAT PJM'S CAPACITY PERFORMANCE PROPOSAL WILL SUFFICIENTLY COMPENSATE GENERATION RESOURCES AND ELIMINATE COST RECOVERY SHORTFALLS.[4] GIVEN THE RESULTS OF RECENT AUCTIONS INCORPORATING THE CAPACITY PERFORMANCE PRODUCT, DO YOU BELIEVE THE PLANTS ARE STILL AT RISK?**

A. Yes. The plants are still at risk. Notably, the Capacity Performance results are already incorporated into Company witness Rose's forecasts.

## III. FES'S 15-YEAR COMMITMENT

**Q. MR. COMINGS TESTIFIES THAT IF FES TERMINATES THE PROPOSED TRANSACTION EARLY, RATEPAYERS WOULD BE INADEQUATELY PROTECTED.[5] DO YOU AGREE?**

[4] Kalt Supplemental at 21-22.

[5] Comings Direct Testimony at 15; Comings Supplemental Testimony at 25.

A. No. Under Section 10 of the Term Sheet,[6] FES is committed to deliver the Plants' energy, capacity, ancillary services and environmental attributes to the Companies for a 15-year Delivery Period which runs from June 1, 2016 to May 31, 2031. Other than the highly unlikely event that FES learns after consummation of the transaction that FES lacks a Governmental Approval required with respect to its obligations under the agreement,[7] there are no exceptions to FES's 15-year commitment. FES proposed this transaction with a full understanding of the costs and benefits to FES, and FES is committed to the 15-year term. Regardless, if FES terminated the PPA early, it would be in breach. Under Section 19, FES would be responsible to pay the Companies the difference between contract payments and the amount of revenue that the Companies would have received for the output of the Plants.

## IV. IMPACTS ON DEVELOPMENT OF NATURAL GAS-FIRED GENERATION

**Q. DR. KALT TESTIFIES THAT THE PROPOSED TRANSACTION WILL THWART THE DEVELOPMENT OF NATURAL GAS GENERATION.[8] DO YOU AGREE?**

A. No. Dr. Kalt mistakenly describes the Plants as less economical to operate than gas-fired plants. As I discussed above, the Plants are economical in PJM's markets, i.e., they have low variable costs that make them competitive from a dispatch perspective. In fact, they typically dispatch before many gas-fired plants. Dr. Kalt cannot argue that the Plants will easily cover their avoidable costs over the next fifteen years while simultaneously

[6] Sierra Club Ex. 1.

[7] Sierra Club Ex. 1 Section 20.

[8] Kalt Direct Testimony at 33.

arguing that the Plants are uneconomic in PJM's markets. The Plants are not crowding out new gas-fired generation.

Moreover, natural gas infrastructure will need to be built in Ohio over the coming decades to support new gas-fired plants in Ohio. This is a difficult process, as evidenced by the inability of the Avon Lake power plant owned by NRG Energy to quickly build a gas pipeline to support its conversion to natural gas.[9] As Ohio transitions to more natural gas-fired generation over the coming decades, the Economic Stability Program will ensure that the Plants will continue to provide reliable and affordable generation in Ohio.

## V. REGULATED GENERATION

**Q. DR. BOWRING ASSERTS THAT RETURNING THE PLANTS TO A COST-OF-SERVICE REGULATION REGIME WOULD NEGATIVELY AFFECT PJM MARKETS.[10] ARE YOU AWARE OF WHETHER COST-OF-SERVICE REGULATED GENERATION CURRENTLY PARTICIPATES IN PJM MARKETS?**

A. Yes. Even if Dr. Bowring were correct that the Companies intend to treat the Plants like regulated units, which is pure speculation, it would be no different from what is already happening in the PJM markets. There already is substantial non-merchant generating capacity in PJM. There is at least 22,653 MW of regulated generation in PJM, plus

[9] NRG has been working unsuccessfully since 2013 to obtain approvals and begin construction of a 20-mile natural gas pipeline, but recently decided to continue to operate the Avon Lake plant as a coal-fired plant.

[10] Bowring Direct Testimony at 3.

another 4,915 MW owned by municipals or cooperatives, or about 17% of PJM's 2015 non-FRR installed capacity.[11]

## VI. CONCLUSION

**Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

A. Yes.

[11] PJM's 2015 non-FRR installed capacity is calculated as 177,650 MW – 14,157 MW = 163,493 MW. *See* Attachment DM-R1 and 2015 Summer Outlook, available at http://www.pjm.com/sitecore%20modules/web/~/media/pjm-annualmeeting/postings/2015-summer-outlook.ashx.

| Owner | Plant Name | Fuel Type | MW | Source |
|---|---|---|---|---|
| Virginia Power | Mt. Storm | Coal | 1,629 | Dominion 2014 10-K |
| Virginia Power | Chesterfield | Coal | 1,267 | Dominion 2014 10-K |
| Virginia Power | Virginia City Hybrid Energy Center | Coal | 610 | Dominion 2014 10-K |
| Virginia Power | Clover | Coal | 439 | Dominion 2014 10-K |
| Virginia Power | Yorktown | Coal | 323 | Dominion 2014 10-K |
| Virginia Power | Mecklenburg | Coal | 138 | Dominion 2014 10-K |
| Virginia Power | Warren County | Gas | 1,342 | Dominion 2014 10-K |
| Virginia Power | Ladysmith | Gas | 783 | Dominion 2014 10-K |
| Virginia Power | Remington | Gas | 608 | Dominion 2014 10-K |
| Virginia Power | Bear Garden | Gas | 590 | Dominion 2014 10-K |
| Virginia Power | Possum Point | Gas | 559 | Dominion 2014 10-K |
| Virginia Power | Chesterfield | Gas | 397 | Dominion 2014 10-K |
| Virginia Power | Elizabeth River | Gas | 348 | Dominion 2014 10-K |
| Virginia Power | Possum Point | Gas | 316 | Dominion 2014 10-K |
| Virginia Power | Bellemade | Gas | 267 | Dominion 2014 10-K |
| Virginia Power | Bremo | Coal | 227 | Dominion 2014 10-K |
| Virginia Power | Gordonsville Energy | Gas | 218 | Dominion 2014 10-K |
| Virginia Power | Gravel Neck | Gas | 170 | Dominion 2014 10-K |
| Virginia Power | Darbytown | Gas | 168 | Dominion 2014 10-K |
| Virginia Power | Rosemary | Gas | 165 | Dominion 2014 10-K |
| Virginia Power | Surry | Nuclear | 1,676 | Dominion 2014 10-K |
| Virginia Power | North Anna | Nuclear | 1,672 | Dominion 2014 10-K |
| Virginia Power | Yorktown | Oil | 790 | Dominion 2014 10-K |
| Virginia Power | Possum Point | Oil | 786 | Dominion 2014 10-K |
| Virginia Power | Gravel Neck | Oil | 198 | Dominion 2014 10-K |
| Virginia Power | Darbytown | Oil | 168 | Dominion 2014 10-K |
| Virginia Power | Possum Point | Oil | 72 | Dominion 2014 10-K |
| Virginia Power | Chesapeake | Oil | 51 | Dominion 2014 10-K |
| Virginia Power | Low Moor | Oil | 48 | Dominion 2014 10-K |
| Virginia Power | Northern Neck | Oil | 47 | Dominion 2014 10-K |
| Virginia Power | Bath County | Hydro | 1,802 | Dominion 2014 10-K |
| Virginia Power | Gaston | Hydro | 220 | Dominion 2014 10-K |
| Virginia Power | Roanoke Rapids | Hydro | 95 | Dominion 2014 10-K |
| Virginia Power | Other | Hydro | 3 | Dominion 2014 10-K |
| Virginia Power | Pittsylvania | Biomass | 83 | Dominion 2014 10-K |
| Virginia Power | Altavista | Biomass | 51 | Dominion 2014 10-K |
| Virginia Power | Polyester | Biomass | 51 | Dominion 2014 10-K |
| Virginia Power | Southhampton | Biomass | 51 | Dominion 2014 10-K |
| Virginia Power | Mt. Storm | Various | 11 | Dominion 2014 10-K |
| Monongahela Power | Harrison | Coal | 1,954 | FirstEnergy 2014-10-K |
| Monongahela Power | Fort Martin | Coal | 1,098 | FirstEnergy 2014-10-K |
| Monongahela Power | OVEC | Coal | 11 | FirstEnergy 2014-10-K |
| Monongahela Power | Bath County | Hydro | 487 | FirstEnergy 2014-10-K |
| Jersey Central Power & Light | Yard's Creek | Hydro | 210 | FirstEnergy 2014-10-K |
| Mid American Energy | Quad Cities | Nuclear | 454 | Berkshire Hathaway 2014 10k |
| **Total Regulated Generation** | | | **22,653** | |

Additional Source: PJM 2018/19 RPM Resource Model

| Owner | Plant Name | Fuel Type | MW | Source |
|---|---|---|---|---|
| Buckeye Power | Cardinal 2 & 3 | Coal | 1,205 | Buckeye Power Website |
| Buckeye Power | OVEC | Coal | 434 | Buckeye Power Website |
| Buckeye Power | Robert P. Mone | Gas | 435 | Buckeye Power Website |
| Buckeye Power | Greenville | Gas | 196 | Buckeye Power Website |
| Old Dominion Electric Cooperative | Clover | Coal | 429 | ODEC Website |
| Old Dominion Electric Cooperative | North Anna | Nuclear | 216 | ODEC Website |
| Old Dominion Electric Cooperative | Louisa | Gas | 466 | ODEC Website |
| Old Dominion Electric Cooperative | Marsh Run | Gas | 481 | ODEC Website |
| Old Dominion Electric Cooperative | Rock Springs | Gas | 328 | ODEC Website |
| Old Dominion Electric Cooperative | Various | Oil | 40 | ODEC Website |
| American Municipal Power | Fremont Energy Center | Gas | 685 | AMP Ohio 2014 Media Kit |
| **Total Munis/Co-ops** | | | **4,915** | |

Additional Source: PJM 2018/19 RPM Resource Model

| FRR Units (AEP) | Plant Name | Fuel Type | MW | Source | |
|---|---|---|---|---|---|
| AEP Generating Company | Rockport | Coal | 1315 | AEP 2014 10-K | Rockport Unit 2 is leased |
| AEP Generating Company | Lawrenceburg | Gas | 1120 | AEP 2014 10-K | AGR contract through 2017 |
| Appalachian Power Company | Buck | Hydro | 9 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | Byllesby | Hydro | 22 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | Claytor | Hydro | 76 | AEP 2014 10-K | FRR Entity |

| | | | | | |
|---|---|---|---|---|---|
| Appalachian Power Company | Leesville | Hydro | 50 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | London | Hydro | 14 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | Marmet | Hydro | 14 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | Niagara | Hydro | 2 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | Reusens | Hydro | 13 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | Winfield | Hydro | 15 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | Ceredo | Gas | 450 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | Dresden | Gas | 555 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | Smith Mountain | Hydro | 586 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | Amos | Coal | 2900 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | Clinch River | Coal | 460 | AEP 2014 10-K | FRR Entity |
| Appalachian Power Company | Mountaineer | Coal | 1305 | AEP 2014 10-K | FRR Entity |
| Indiana & Michigan | Berrien Springs | Hydro | 7 | AEP 2014 10-K | FRR Entity |
| Indiana & Michigan | Buchanan | Hydro | 4 | AEP 2014 10-K | FRR Entity |
| Indiana & Michigan | Constantine | Hydro | 1 | AEP 2014 10-K | FRR Entity |
| Indiana & Michigan | Elkhart | Hydro | 3 | AEP 2014 10-K | FRR Entity |
| Indiana & Michigan | Mottville | Hydro | 2 | AEP 2014 10-K | FRR Entity |
| Indiana & Michigan | Twin Branch | Hydro | 5 | AEP 2014 10-K | FRR Entity |
| Indiana & Michigan | Rockport | Coal | 1300 | AEP 2014 10-K | FRR Entity |
| Indiana & Michigan | Cook | Nuclear | 2071 | AEP 2014 10-K | FRR Entity |
| Kentucky Power Company | Big Sandy | Coal | 1078 | AEP 2014 10-K | FRR Entity |
| Kentucky Power Company | Mitchell | Coal | 780 | AEP 2014 10-K | FRR Entity/ 1/2 interest |
| | | | 14157 | | |

Summary: Testimony Rebuttal testimony of Donald Moul electronically filed by Mr. Nathaniel Trevor Alexander on behalf of Ohio Edison Company and The Cleveland Illuminating Company and The Toledo Edison Company