

BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Ohio)
Edison Company, The Cleveland Electric) Case No. 14-1297-EL-SSO
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)

DIRECT TESTIMONY OF

JAY A. RUBERTO

ON BEHALF OF

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

AUGUST 4, 2014

1 **Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.**

2 A. My name is Jay A. Ruberto, Director, Regulated Generation and Dispatch, for
3 FirstEnergy Service Company. My business address is 5001 NASA Boulevard,
4 Fairmont, West Virginia.

5 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND,**
6 **PROFESSIONAL QUALIFICATIONS, AND EMPLOYMENT EXPERIENCE.**

7 A. I graduated from The Pennsylvania State University in 1983 with a Bachelor of Science
8 degree in Electrical Engineering. From 1984 to 2006, I held several positions with
9 Allegheny Energy, Inc. (“Allegheny”), including Director, Customer Service; General
10 Manager, Customer Service Center (“CSC”); Team Leader, CSC Support; Supervisor,
11 Division Customer Services and Accounting; and various engineering positions.
12 Between 2006 and 2011, I was Director, Transmission Siting, for Allegheny Energy
13 Service Corporation, where I was responsible for directing the activities associated with
14 the siting of transmission lines, real estate and rights of way, drafting documents and
15 records, and permitting and surveying for Allegheny’s subsidiary operating companies.
16 Following the merger of Allegheny and FirstEnergy Corp. (“FirstEnergy”) in 2011 and
17 before taking my current position, I was Senior Advisor, Transmission and Substation
18 Engineering, responsible for siting large transmission projects regulated by the Federal
19 Energy Regulatory Commission (“FERC”) throughout FirstEnergy’s service territory.
20 As Director, Regulated Generation and Dispatch, I am responsible for the regulated
21 generation portfolio for the FirstEnergy utilities. In this position, I am responsible for
22 asset management, strategic optimization, and dispatch of the regulated assets of

1 MonPower and Jersey Central Power & Light, among other duties. This includes
2 reviewing major generation expenditures, such as fuel procurement, and capital projects.

3 **Q. HAVE YOU TESTIFIED PREVIOUSLY IN THE STATE OF OHIO?**

4 A. Yes. I have testified before the Ohio Power Siting Board in the proceedings for the East
5 Springfield – London – Tangy Transmission Line Project (Ohio Power Siting Board Case
6 no. 11-4884-EL21-BTX), the London Substation Project (Ohio Power Siting Board Case
7 no. 11-4885-EL22-BSB), and the Glenwillow Transmission Switching Substation Project
8 (Ohio Power Siting Board Case no. 12-1727-EL21-BSB).

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

10 A. Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo
11 Edison Company (collectively, the “Companies”) are proposing their fourth electric
12 security plan entitled Powering Ohio’s Progress (also referred to as “ESP IV”). The
13 Powering Ohio’s Progress plan will include a critical Economic Stability Program. My
14 testimony explains components of the Economic Stability Program. Specifically, my
15 testimony will: (i) describe a FERC jurisdictional proposed purchase power agreement
16 between the Companies and FirstEnergy Solutions Corp. (“FES”), (ii) describe the
17 Companies’ intent to sell the energy, capacity and ancillary services from the proposed
18 purchase power agreement into the wholesale market and obtain the market revenue, and
19 (iii) seek approval from the Public Utilities Commission of Ohio (“PUCO”) for a Retail
20 Rate Stability Rider (“Rider RRS”) that will operate as a charge or credit. My testimony
21 will then describe and support the Companies’ evaluation of the benefits – to the
22 Companies and their customers – of the Economic Stability Program.

1 **Q. PLEASE GENERALLY DESCRIBE THE COMPONENTS OF THE ECONOMIC**
2 **STABILITY PROGRAM.**

3 A. The Economic Stability Program consists of a FERC jurisdictional proposed power
4 purchase agreement for the output of Davis-Besse Nuclear Power Station (“Davis-
5 Besse”) and the W.H. Sammis Plant (“Sammis”) (collectively, the “Plants”), as well as
6 FES’s entitlement to the output of the Ohio Valley Electric Corporation (“OVEC”). The
7 Companies would purchase all of the generation output of the Plants on a cost basis plus
8 a return on investment. FES would sell its OVEC output to the Companies at FES’s cost.
9 The Companies would then offer this output into the PJM markets, and net 100% of the
10 revenues against costs, with the difference being passed along to customers through Rider
11 RRS.

12 **Q. PLEASE DESCRIBE THE TERMS OF THE PROPOSED TRANSACTION.**

13 A. The Companies would purchase from FES the capacity of the Plants and FES’s 4.85%
14 entitlement in OVEC, together with the associated energy, ancillary services and
15 environmental attributes. The delivery period would be from June 1, 2016 to May 31,
16 2031. For the Plants’ output, the Companies would pay all the costs of operating the
17 plants, including fuel expenses, operations and maintenance (“O&M”) expenses,
18 depreciation and taxes, plus a reasonable return on invested capital. For purposes of the
19 transaction, the parties would use a capital structure of 50% equity and 50% debt. For the
20 OVEC entitlement interest, the Companies’ payment would be equal to those costs
21 related to and deriving from FES’s 4.85% entitlement in OVEC.

1 **Q. WHAT WAS YOUR ROLE IN THE COMPANIES' EVALUATION OF THE**
2 **PROPOSAL?**

3 A. I led a team (the "EDU Team") that broadly represented the Companies. The EDU Team
4 included individuals from regulated generation, transmission, legal, rates, and accounting.
5 We were responsible to determine whether it would be beneficial to customers and make
6 sense for the Companies over the term of the proposed agreement. We evaluated the
7 proposal based on its potential impact on the Companies' customers, retail system
8 reliability, Ohio's economy and the Companies. We engaged in a lengthy process of fact
9 gathering, analysis and negotiation with FES to meet these objectives in this transaction.
10 In addition, we toured each of the Plants to review plant operations, meet with plant
11 personnel, and observe the condition of the Plants. Ultimately, we negotiated the
12 potential terms of the proposed transaction.

13 **Q. WHAT DUE DILIGENCE DID THE EDU TEAM CONDUCT IN REVIEWING**
14 **THE PROPOSAL?**

15 A. To determine whether the Plants' projected levels of cost were reasonable for the output,
16 the EDU team requested and received data from FES regarding the operation of the
17 generation units. This included a broad range of information, including the Plants'
18 projected energy and capacity capabilities, outage rates, O&M and capital expenditures,
19 taxes, and planned outages. This information was compared to similar data in the
20 industry to validate the reasonableness. Because all units have unique characteristics
21 (including generation efficiency, capacity, age, fuel type, fuel transportation costs,
22 maintenance need), it was expected that there would be some differences in generation
23 costs. Because one of the Companies' regulated affiliates (Mon Power) owns a portion

1 of the OVEC output, FES's data relating to the operation of OVEC could be readily
2 verified.

3 In addition, Company witness Rose provided projected energy and capacity prices, which
4 were used to project plant output and generate revenue projections. The team verified
5 these revenue projections and compared the projected revenues to projected costs.

6 **Q. WHAT DID YOU CONCLUDE REGARDING THE PLANTS' COSTS?**

7 A. The EDU Team determined that the Sammis coal units are reasonably similar in
8 generation cost to existing regulated coal-fired generation units. The level of outages,
9 costs, and projected expenditures are in line with what would be expected when
10 compared to existing regulated fossil generation plants. Industry data was used to
11 evaluate the cost of generation for the Davis-Besse nuclear plant. This review
12 determined the level of outages, fuel costs, and labor cost to generate a MWh is
13 reasonably comparable to other similar facilities. Based upon this analysis, we
14 determined FES's forecasted cost levels are reasonable and consistent with generally
15 accepted practices engaged in by a significant portion of the electric utility industry.

16 **Q. HOW WAS THE TERM OF THE PROPOSED AGREEMENT DETERMINED?**

17 A. The EDU Team evaluated the value and risks associated with various terms. Because
18 forecasted revenues and costs indicate the early years will experience costs in excess of
19 revenues with the latter years producing revenues in excess of costs, a term sufficiently
20 long was considered necessary to improve the value to the Companies, their customers
21 and the State of Ohio. A fifteen-year term was viewed as sufficiently long to provide
22 substantial benefits to the Companies' customers, to retail system reliability and to
23 Ohio's economy.

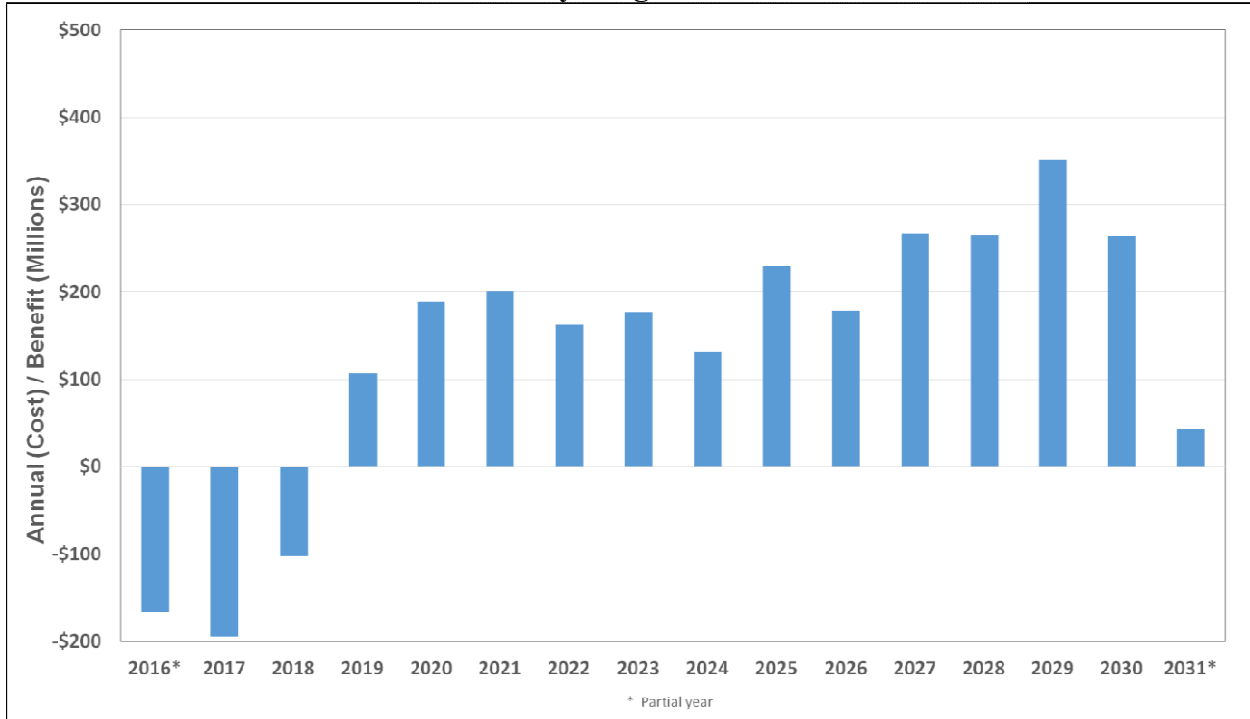
1 **Q. HOW DO THE POTENTIAL REVENUES COMPARE WITH THE ESTIMATED**
2 **COSTS OF THE PROPOSAL?**

3 A. The EDU Team determined that the proposal over a fifteen-year period would result in
4 substantial benefits to retail customers. As shown on my Attachment JAR-1, the
5 estimated revenues would exceed the estimated costs by more than \$2 billion on a
6 nominal basis, with a net present value to customers of over \$800 million.

7 **Q. HOW DID YOU CALCULATE THIS FINANCIAL IMPACT ON CUSTOMERS?**

8 A. Company witness Lisowski provided the estimated cost data for the Plants and OVEC for
9 each year of the Economic Stability Program. Company witness Rose forecasted
10 wholesale market electricity prices, which Company witness Lisowski used to calculate
11 costs and revenues to the Companies associated with the sale of the Plants' output into
12 the PJM markets. The EDU Team verified Mr. Lisowski's revenue analysis. Attachment
13 JAR-1 shows the expected costs and revenues of the proposed 15-year Economic
14 Stability Program. As demonstrated by Attachment JAR-1 and Figure 1 below, projected
15 market revenue will begin exceeding projected costs in 2019 and continuing throughout
16 the remainder of the Economic Stability Program, which means a substantial credit for
17 customers from 2019 through 2031.

**Figure 1
Economic Stability Program -- Benefit to Customers**



1 **Q. WHAT ASSUMPTIONS DID YOU MAKE IN YOUR CALCULATION?**

2 A. I assumed an effective tax rate of 37.44 percent and a cost of debt of 4.54 percent. Both
 3 data points were provided by Company witness Lisowski. Although these data points are
 4 fixed in my calculation, the annual update to Rider RRS will use then-current data. In
 5 addition, I assumed a 50/50 debt-to-equity capital structure supported by Company
 6 witness Staub. Lastly, Company witness Staub provided me with a cost of equity of
 7 11.15 percent, which I held constant for each year of the calculation (this is also held
 8 constant for the Rider RRS update).

1 **Q. WHY ARE THE COMPANIES USING A 50/50 CAPITAL STRUCTURE FOR**
2 **VALUING THIS TRANSACTION?**

3 A. While negotiating the structure of the transaction we noted that the FES capital structure
4 was comprised of approximately 65% equity and 35% debt. From our perspective, using
5 a capital structure with 65% equity for valuing the transaction would have resulted in
6 higher costs for our customers. We were able to successfully negotiate with FES that
7 they would accept payment based on a capital structure of 50% equity and 50% debt.
8 Using a capital structure with 50% equity instead of 65% equity increased the value of
9 the transaction for our customers.

10 **Q. WHY DID THE EDU TEAM REVIEW THE PROPOSAL'S IMPACT ON**
11 **RELIABILITY?**

12 A. The Companies have an interest in assuring system reliability if the Plants are
13 deactivated. The Companies' customers would bear a substantial amount of the cost of
14 the transmission enhancements that may become necessary to maintain reliability should
15 any or all of these plants retire. The cost of these enhancements are discussed by
16 Company witness Cunningham. In addition, preserving these baseload generation assets
17 promotes plentiful retail supply and retail reliability, which also benefits the Companies'
18 customers. The benefits of maintaining fuel diversity and an appropriate generation asset
19 mix in Ohio is discussed by Company witness Moul.

20 **Q. HOW DID THE EDU TEAM REVIEW THE PROPOSAL'S IMPACT ON THE**
21 **COMPANIES' CUSTOMERS?**

22 A. The EDU Team evaluated the costs as well as potential revenues generated to determine
23 the net effect on customers. This was done using known and projected plant costs as well

1 as energy revenue projections. The EDU Team also worked to ensure that the terms of
2 the transaction would not impose undue risk on customers.

3 **Q. DOES THE PROPOSAL PROTECT CUSTOMERS?**

4 A. Yes. Among other things, the Companies have the right to audit the costs charged to the
5 Companies. Further, FES's operation of the Plants would be required to be governed by
6 good utility practice.¹ The Companies would also have authority to review FES's capital
7 improvements plan and scheduled outage program, which should benefit customers on
8 both the cost and revenue sides of this transaction. The Companies also insisted that the
9 offering strategy would be controlled by the Companies.

10 **Q. WHO WILL BE RESPONSIBLE FOR SELLING PLANT OUTPUT?**

11 A. The Companies will have the responsibility to offer the output of the Plants into the PJM
12 markets. The Companies will offer capacity from the Plants into the PJM Reliability
13 Pricing Model ("RPM") auction process and will offer energy and ancillaries from the
14 Plants into the PJM markets.

15 **Q. WILL THE COMPANIES BID THE OUTPUT FROM THE PLANTS INTO ANY**
16 **OHIO EDU SSO AUCTIONS?**

17 A. No. The Companies will offer the energy and ancillaries from the Plants into the PJM
18 markets and will offer capacity from the Plants into the PJM RPM auction process. SSO
19 auctions in Ohio will not be adversely affected because the physical supply of energy and

¹ Good utility practice generally refers to the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good utility practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

1 capacity will not be removed from the PJM markets and, therefore, will be available to
2 market participants, including potential SSO suppliers.

3 **Q. DID YOUR EDU TEAM EVALUATE OTHER BENEFITS OR**
4 **CONSIDERATIONS REGARDING THE POTENTIAL TRANSACTION?**

5 A. Yes. The Companies have an interest in promoting the economic vitality of their service
6 territories and the State of Ohio, and in avoiding the adverse impacts of the closure of
7 these Plants. These adverse impacts are also discussed in the testimony of Company
8 witnesses Murley and Strah.

9 **Q. FOLLOWING THE EVALUATION YOU HAVE DESCRIBED, WHAT DID THE**
10 **TEAM CONCLUDE?**

11 A. Based on our analysis of the proposal, the protections afforded the Companies and their
12 retail customers in the proposal, and the projected substantial benefits to retail customers,
13 we believe that the Companies should move forward with the proposal.

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

15 A. Yes. I reserve the right to supplement my testimony.

Attachment JAR-1

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

<u>Regulatory Assumptions</u>	
ROE	11.15%
Effective Tax Rate	37.44%
Assumed Debt %	50.00%
Assumed Equity %	50.00%
Cost of Debt	4.54%
WACC	7.85%

<u>Total Under (Over)</u>	<u>Nominal</u>	<u>NPV</u>	<u>IRR</u>
Total PPA Term - 15 years	(2,104)	(805)	27%

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	2025	2026	2027	2028	2029	2030	2031*	Total
TOTAL																	
Projected Market Revenue	606	1,155	1,302	1,507	1,657	1,693	1,738	1,771	1,795	1,927	1,938	2,045	2,152	2,238	2,256	900	26,680
Projected Costs	773	1,349	1,405	1,400	1,468	1,493	1,575	1,594	1,663	1,698	1,759	1,778	1,887	1,887	1,991	858	24,577
Under (Over) Recovery	167	194	103	(107)	(189)	(200)	(163)	(177)	(132)	(229)	(179)	(267)	(266)	(351)	(264)	(43)	(2,104)
NPV Under (Over) Recovery	155	167	82	(79)	(130)	(127)	(96)	(97)	(67)	(108)	(78)	(108)	(100)	(122)	(85)	(13)	(805)

*2016 is June 1 - December 31. 2031 is January 1 - May 31.

*Numbers in parentheses signify savings to customers.

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Case No(s). 14-1297-EL-SSO

Summary: Testimony (Direct) of Jay A. Ruberto electronically filed by Ms. Tamera J Singleton on behalf of Ohio Edison Company and The Cleveland Electric Illuminating Company and The Toledo Edison Company