

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) Case No. 14-1297-EL-SSO
for a Standard Service Offer Pursuant to R.C.)
4928.143 in the Form of an Electric Security)
Plan)

SUPPLEMENTAL TESTIMONY OF

DONALD MOUL

ON BEHALF OF

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

MAY 4, 2015

PUBLIC VERSION

I. INTRODUCTION

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

3 A. My name is Donald Moul. I am Vice President of Commodity Operations for
4 FirstEnergy Solutions Corp. (“FES”). My business address is 341 White Pond Drive,
5 Akron, Ohio 44320.

6 Q. DID YOU PRESENT DIRECT TESTIMONY IN THIS PROCEEDING?

7 A. Yes.

8 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?**

9 A. The purpose of my supplemental testimony is to discuss the financial need of the Davis-
10 Besse Nuclear Power Station (“Davis-Besse”) and the W.H. Sammis Plant (“Sammis”)
11 (collectively, the “Plants”), as well as FES’s 4.85% interest in the Ohio Valley Electric
12 Cooperative (“OVEC”). I will also discuss the necessity of the Plants, in light of future
13 reliability concerns, including supply diversity.

4 II. FINANCIAL VIABILITY OF THE PLANTS

5 **Q. ARE THE PLANTS AT RISK OF CLOSURE?**

6 A. Yes. Figures 1, 2 and 4 below compare the annual costs and revenues of Sammis, Davis-
7 Besse and FES's 4.85% interest in OVEC, for the years 2009 through 2014. (The costs
8 include depreciation but do not include interest expense or any return on investment.)
9 Even without interest and return on investment, as Figure 1 illustrates, from 2009 through
10 2014 Sammis [BEGIN CONFIDENTIAL] [REDACTED]

Figure 1 Sammis Profits/Losses, 2009 – 2014 (\$ in millions)							
	2009	2010	2011	2012	2013	2014	Total
Total Revenues							
Total Costs							
Profit/Loss							

[END CONFIDENTIAL]

Figure 2 illustrates that from 2009 through 2014, Davis-Besse [BEGIN

CONFIDENTIAL] [REDACTED]

[REDACTED]

Figure 2 Davis-Besse Profits/Losses, 2009 – 2014 (\$ in millions)							
	2009	2010	2011	2012	2013	2014	Total
Total Revenues							
Total Costs							
Profit/Loss							

[END CONFIDENTIAL]

The Plants' earned returns on equity ("ROEs") from 2009 through 2014 further illustrate

their financial challenges. Figure 3 illustrates that the Plants have earned [BEGIN

CONFIDENTIAL] [REDACTED]

Figure 3 Sammis and Davis-Besse Historical Earned ROEs, 2009-2014						
	2009	2010	2011	2012	2013	2014
Sammis						
Davis-Besse						

[END CONFIDENTIAL]

Figure 4 illustrates that during the same period, FES's 4.85% interest in OVEC [BEGIN
CONFIDENTIAL]

Figure 4 FES OVEC Share Profits/Losses, 2009 – 2014 (\$ in millions)							
	2009	2010	2011	2012	2013	2014	Total
Total Revenues							
Total Costs							
Profit/Loss							

[END CONFIDENTIAL] OVEC is subject to the same stresses in the market as the
Plants. These figures show why the future of the Plants is in doubt, even without
considering interest expense or return on investment.

**Q. SOME SUGGEST THAT THE ONLY COSTS THAT SHOULD BE
CONSIDERED WHEN ASSESSING A GENERATION UNIT'S FINANCIAL
VIABILITY ARE AVOIDABLE COSTS. DO YOU AGREE?**

1 A. No.

2 **Q. WHY MUST ADDITIONAL COSTS, ABOVE AND BEYOND AVOIDABLE**
3 **COSTS, BE TAKEN INTO CONSIDERATION WHEN CONSIDERING THE**
4 **FINANCIAL VIABILITY OF THE PLANTS?**

5 A. Avoidable costs, simply put, are costs that would not be incurred should the generation
6 unit be shut down or mothballed. But the owners of the Plants must also make capital
7 investments that keep the Plants running in order to ensure reliable operation of the Plants
8 and return value to shareholders. The power generation industry particularly is very
9 capital-intensive. Generating power requires a significant amount of investment to build,
10 maintain and re-invest in a plant; e.g., Davis-Besse's steam generator replacement and
11 Sammis's air quality control ("AQC") project. Without necessary investments,
12 performance will degrade. Revenues that merely cover avoidable costs are insufficient to
13 fund necessary capital projects and to maintain the financial viability of the Plants.
14 Further, to fund these necessary, capital intensive projects, a business needs to be able to
15 borrow money at a reasonable cost. Plants that earn just enough revenues to cover
16 avoidable costs, and sometimes even less than that, do not provide a business with
17 sufficient return on investment to borrow. A business owner will not continue investing
18 cash into a business that is losing money.

19 **Q. CAN THE PLANTS CONTINUE OPERATING [BEGIN CONFIDENTIAL] [REDACTED]**
20 **[REDACTED] [END CONFIDENTIAL] UNTIL MARKET**
21 **PRICES INCREASE AND MAKE THE PLANTS VIABLE?**

22 A. That is uncertain. As the figures above illustrate, [BEGIN CONFIDENTIAL] [REDACTED]
23 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] [END CONFIDENTIAL]

Q. CAN OHIO DEPEND ON PJM'S CAPACITY PERFORMANCE PLAN IN LIEU OF THE ECONOMIC STABILITY PROGRAM?

A. No. If anything, the uncertainty surrounding PJM's proposal increases the risks that generators face. FERC recently delayed an order on the PJM Capacity Performance plan, based in part on comments recommending modifications to more closely match aspects of the plan used for New England ISO. In response, PJM has requested approval to delay the RPM Base Residual Auction, and the FERC granted PJM's request to delay the Auction until possibly as late as August 15, 2015. Adoption of the PJM Capacity Performance plan as-filed is not a certainty. Moreover, the timing of adoption of the PJM Capacity Performance plan and the likely content of such a plan are very uncertain.

Q. IN THE EVENT THE CAPACITY PERFORMANCE PROPOSAL IS APPROVED, DOES THIS ELIMINATE THE NEED FOR THE ECONOMIC STABILITY PROGRAM?

A. No. While the PJM Capacity Performance plan may help address some of the problems with PJM's capacity market, it is not focused on Ohio-based solutions and it is not

1 designed to preserve Ohio generation. Further, even if the Capacity Performance
2 proposal is approved and functions as intended, significant problems remain with PJM
3 market design and implementation, such that Ohio should not rely on the PJM market to
4 ensure that Ohio maintains critical generation resource diversity.

5 **Q. CAN OHIO DEPEND ON THE RESOLUTION OF THE LEGAL CHALLENGE,**
6 **CURRENTLY AT THE U.S. SUPREME COURT, TO THE INCLUSION OF**
7 **DEMAND RESPONSE IN WHOLESALE ENERGY MARKETS IN PLACE OF**
8 **THE ECONOMIC STABILITY PROGRAM?**

9 No. Because the Supreme Court has decided to take the appeal, the ultimate outcome
10 will be unknown for some time. As a result, demand response's role in energy and
11 capacity markets is unlikely to be resolved in the near-term. Given this considerable
12 uncertainty, it is difficult for generation owners to make decisions regarding investments
13 in their existing generation. States must take an active role in energy security, and there
14 is simply too much risk to Ohio's future for Ohio to relinquish its duty to maintain its
15 critical fuel-diverse baseload generation. Ohio needs to control the future of its system
16 reliability. Uncertain future rules, and uncertain impacts from potential rule changes,
17 make the Economic Stability Program even more critical to provide the needed certainty
18 and stability for these key generation resources. The Economic Stability Program
19 provides the certainty needed for investment.

20 **Q. COULD THE FINANCIAL VIABILITY OF THE PLANTS BE SECURED IF FES**
21 **OBTAINED A "RELIABILITY MUST RUN" CONTRACT FOR COST-OF-**
22 **SERVICE COMPENSATION?**

1 A. No. PJM's Reliability Must Run ("RMR") process starts with the generator sending PJM
2 a deactivation notice. The notice to PJM initiates PJM's reliability analysis, which
3 identifies transmission upgrades needed to compensate for the loss of the plant. Even if a
4 generator accepts an RMR contract (which is voluntary), an RMR contract is only in
5 place until new transmission is constructed. It is a stopgap measure. Additionally, an
6 RMR contract does not support capital investments necessary to operate a plant
7 effectively. RMR cannot be considered a viable alternative from an economic
8 perspective. Nor is it a viable alternative from a reliability perspective. That new
9 transmission will cost customers, while not providing the stability and economic benefits
10 of preserving existing baseload generation like the Plants. As Company witness Phillips
11 explains, new transmission is no substitute for generation located in close proximity to
12 load. Further, an RMR contract, unlike the Economic Stability Program, cannot result in
13 a financial benefit to the Companies' customers.

14 **III. THE NECESSITY OF THE PLANTS, IN LIGHT OF FUTURE RELIABILITY**
15 **CONCERNS**

16 **Q. WILL NEW PLANTS IN THE PJM QUEUE PROVIDE THE SAME**
17 **RELIABILITY BENEFITS AS SAMMIS AND DAVIS-BESSE, EFFECTIVELY**
18 **REPLACING THEM?**

19 A. No. Sammis and Davis-Besse are baseload plants with onsite fuel supply, capable of
20 running continuously for long periods and withstanding extreme events. New plants
21 proposed for construction do not offer these attributes. Many of them are natural gas
22 plants. Natural gas plants are intermediate plants with reliability challenges associated
23 with natural gas fuel supply. Unlike baseload coal and nuclear plants, natural gas plants

1 do not have significant supplies of fuel stored onsite, relying on a “just-in-time” system
2 of fuel delivery that requires problem-free scheduling and operation of thousands of miles
3 of gas pipelines, gas storage facilities, and effective gas “gathering” processes. This
4 complex and interrelated gas delivery system ensures reliable operation only if the
5 customer, here the natural gas plant, has contracts for “firm” capacity on the pipelines
6 and gas storage systems, and locked-in commodity supply. Even if a natural gas plant
7 has a firm contract for fuel, there is still the potential for interruption due to a mechanical
8 failure on the pipeline system. Building adequate pipeline infrastructure takes time and
9 tremendous monetary resources. Moreover, adequate natural gas generation will not be
10 in place in the near term. Renewable resources run intermittently and cannot provide
11 ancillary service, much less serve as the backbone of the electric system like the Plants
12 do. In short, not all megawatts are created equal.

13 In addition, as Company witness Phillips explains, most planned assets appearing in the
14 PJM queue will never go into service and generate a single megawatt. Also, Company
15 witness Phillips explains that whether new plants can offset the harms to reliability
16 caused by the loss of Sammis and Davis-Besse depends on the location of the new plants
17 and their proximity to load. Unless these plants are sited in the same proximity as
18 Sammis and Davis-Besse, and provide a similar quality of megawatt as baseload plants
19 with onsite fuel supply, they in no way can replace the Plants.

20 **IV. CONCLUSION**

21 **Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL TESTIMONY?**

22 A. Yes. I reserve the right to supplement my testimony further if necessary.
23

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