

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)	

**SUPPLEMENTAL DIRECT TESTIMONY OF
CHERYL ROBERTO
ON BEHALF OF
ENVIRONMENTAL DEFENSE FUND
AND OHIO ENVIRONMENTAL COUNCIL**

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DEFENSE FUND**

1 **I. INTRODUCTION**

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

3 A. My name is Cheryl Roberto. My business address in 1145 Chesapeake Ave., Suite I,
4 Columbus, OH 43212.

5 **Q. ARE YOU THE SAME CHERYL ROBERTO WHO PREVIOUSLY FILED**
6 **DIRECT TESTIMONY IN THIS PROCEEDING?**

7 A. Yes.

8 **Q. ON WHOSE BEHALF ARE YOU FILING THIS SUPPLEMENTAL DIRECT**
9 **TESTIMONY?**

10 A. I am filing this supplemental direct testimony on behalf of the Environmental Defense
11 Fund (“EDF”) and the Ohio Environmental Council (“OEC”), intervenors in this case.

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

13 A. The Commission issued an Opinion and Order in Case No. 13-2385-EL-SSO on February
14 25, 2015, approving AEP Ohio’s Electric Security Plan. In that case, AEP Ohio proposed
15 a non-competitive purchase agreement similar to the Economic Stability Program
16 proposed by Ohio Edison Company, The Cleveland Electric Illuminating Company and
17 The Toledo Edison Company (“the Companies”). The Commission declined to approve
18 AEP’s non-competitive purchase proposal, but listed several factors which might lead it
19 to approve cost recovery for such non-competitive purchase agreements in the future.
20 My testimony will address these factors as they apply to the Companies’ Economic
21 Stability Program.

22 **II. DISCUSSION OF FACTORS FOR APPROVAL OF**
23 **NON-COMPETITIVE PURCHASE AGREEMENTS**

1 **Q. WHAT ARE THE FACTORS WHICH MIGHT LEAD THE COMMISSION TO**
2 **APPROVE COST RECOVERY FOR NON-COMPETITIVE PURCHASE**
3 **AGREEMENTS SUCH AS THE COMPANIES' ECONOMIC STABILITY**
4 **PROGRAM?**

5 A. At page 25 of its February 25, 2015 Opinion and Order in the AEP Ohio case, the
6 Commission listed the following factors: 1) financial need of the generating plant; 2)
7 necessity of the generating facility, in light of future reliability concerns, including supply
8 diversity; 3) a description of how the generating plant complies with all pertinent
9 environmental regulations and its plan for compliance with pending environmental
10 regulations; and 4) the impact that a closure of the generating plant would have on
11 electric prices and the resulting effect on economic development within the state.

12 **Q. PLEASE COMMENT ON THE FIRST FACTOR – THE FINANCIAL NEED OF**
13 **THE GENERATING PLANT -- AS IT RELATES TO THE PRESENT CASE.**

14 A. The Commission did not give any guidance on how this first factor should be applied.
15 Inclusion of this “need-based” factor, however, appears to be an implicit
16 acknowledgement by the Commission that the request is a subsidy intended to prop up
17 generation that would otherwise not survive in the competitive wholesale market. In
18 evaluating the “need” itself, it is important to keep in mind that the evaluation is to be
19 conducted of the financial health of the regulated utility’s competitive sister company,
20 not the regulated utility. As such, in the present case, I suggest the appropriate test for
21 need is whether FirstEnergy, the parent company, is unable to, not simply unwilling to,
22 maintain the generation facility. It would be difficult for the Commission to find an
23 actual need if FirstEnergy, the parent, is able, but unwilling to prop up its corporate child

1 with a subsidy. If FirstEnergy and its shareholders are able but unwilling to subsidize the
2 plant, then it suggests that there is not truly a financial need. There is no public policy
3 purpose that would support carving out and subsidizing, through regulated utility tariffs,
4 the operation of a single economically failing competitive facility when the entire
5 enterprise as a whole remains profitable. Finally, even if FirstEnergy the corporate
6 parent were unable to assist its corporate child, such a subsidy is anathema to the
7 competitive market to which Ohio has committed itself. As such, I recommend that in
8 considering this factor the Commission explicitly balance impacts upon the wholesale
9 market of the out of market payments for generation against any consideration of need.
10 While FirstEnergy, the parent, presented no evidence of financial need, its annual report
11 shows that it has \$12.4 billion in shareholder equity, so FirstEnergy is clearly able to pay
12 to keep these plants open.¹ This first factor should not cause the Commission to approve
13 the Economic Stability Program for the reasons I outlined above and for the reasons
14 stated in my direct testimony.

15 **Q. PLEASE COMMENT ON THE SECOND FACTOR – THE NECESSITY OF THE**
16 **GENERATING FACILITY, IN LIGHT OF FUTURE RELIABILITY**
17 **CONCERNS, INCLUDING SUPPLY DIVERSITY– AS IT RELATES TO THE**
18 **PRESENT CASE.**

19 A. The Commission should not approve the Economic Stability Program based on the
20 second factor. I addressed reliability in my direct testimony. As I discussed, the issue of
21 reliability is a red herring because the Companies are not responsible for resource
22 adequacy. Instead, PJM has this responsibility. If PJM determines that these plants are

¹ Available at <https://www.firstenergycorp.com/content/dam/investor/files/annual-reports/2014/2014-FirstEnergy-Annual-Report.pdf>.

1 needed for reliability reasons, then PJM could implement a must-run arrangement to keep
2 the plants open. Moreover, this would be the better approach for the Companies’
3 customers. If the plants are truly needed for regional reliability, a must-run arrangement
4 would be available only for so long as necessary to alleviate any concern. It would not
5 lock ratepayers into long-term support of an uneconomic facility.

6 **Q. IN HIS SUPPLEMENTAL TESTIMONY, MR. MOUL STATES THAT FOR**
7 **RELIABILITY BENEFITS SAMMIS AND DAVIS-BESSE ARE SUPERIOR TO**
8 **ALTERNATIVES THE PJM MARKET WILL PRODUCE. HOW DO YOU**
9 **RESPOND?**

10 A. Mr. Moul is overstating the reliability benefits of these units. Mr. Moul states that
11 baseload plants with on-site fuel, in the case of Sammis, coal, and with Davis-Besse,
12 uranium, are capable of running continuously for long periods and withstanding extreme
13 events. When put to the test of the Polar Vortex on January 7, 2014, 13,700 MW of coal-
14 fired generation failed to deliver as a result of “forced outages”; i.e. out of service when it
15 had been committed. Nuclear plants were not immune either when in during the same
16 event 1,400 MW of nuclear generation failed. During that same event, 9,700 MW of
17 natural gas fueled plants failed to deliver.² The fact is that no type of generation is
18 immune. Additionally, Mr. Moul quotes Company witness Phillips for the proposition
19 that new transmission is no substitute for generation located in close proximity to load. If
20 the Commission wishes to encourage diversity of supply within Ohio near the load, it
21 could choose any number of competitive mechanisms to accomplish this. For instance, in
22 procuring supply on behalf of default service customers, the Commission could direct the

² Analysis of Operational Events and Market Impacts During the January 2014 Cold Weather Events (PJM Interconnection, May 8, 2014).

1 Companies to seek requests for proposal for specific types of resources, including
2 distributed generation such as combined heat and power or rooftop solar. It could also
3 design a procurement process, such as in Illinois³ that procures energy efficiency as a part
4 of the portfolio for diversity.

5 **Q. IN HIS SUPPLEMENTAL TESTIMONY, MR. MOUL STATES THAT A MUST-**
6 **RUN ARRANGEMENT IS NOT A VIABLE ALTERNATIVE FROM AN**
7 **ECONOMIC OR FROM A RELIABILITY PERSPECTIVE. HOW DO YOU**
8 **RESPOND?**

9 A. I disagree with Mr. Moul's conclusions. Mr. Moul states that a must-run arrangement is
10 not viable because it is a stop-gap measure, in that it is only in place until new
11 transmission is constructed. This is precisely why the Commission should allow PJM to
12 implement a must-run arrangement if necessary. The Economic Stability Program would
13 require the Companies' customers to pay for the plants for fifteen years, while a must-run
14 agreement would be in effect for a much shorter time period, until the new transmission
15 is in place. None of the arguments advanced by the Companies support locking
16 customers into a long-term contract which, in the best of circumstances, is a money loser
17 in the initial years.

18 **Q. MR. MOUL ALSO STATES THAT A MUST-RUN ARRANGEMENT IS NOT**
19 **APPROPRIATE FROM A RELIABILITY STANDPOINT BECAUSE IT WILL**
20 **COST CUSTOMERS, IT WON'T PROVIDE THE ECONOMIC BENEFITS OF**
21 **KEEPING THE PLANTS OPEN, AND THERE'S NO SUBSTITUTE FOR**

³ Illinois Power Agency, *2015 Electricity Procurement Plan*, (September 29, 2014) at pp. 68-99.
Available at <http://www.icc.illinois.gov/docket/files.aspx?no=14-0588&docId=228565>

**HAVING PLANTS LOCATED NEAR THE LOAD THEY SERVE. HOW DO
YOU RESPOND?**

A. I disagree. PJM is responsible for managing reliability and it successfully uses must-run arrangements when plants are needed for reliability. Mr. Moul correctly states that customers would need to pay for the new transmission which would be built to replace the plants. But the point of building new transmission is to allow customers to be served by more efficient power plants, which would lower customers' supply costs. I respond elsewhere in my testimony to Mr. Moul's point about the economic benefits of keeping the plants open and location of generation near load.

**Q. PLEASE COMMENT ON THE THIRD FACTOR – WHETHER THE
GENERATING PLANTS COMPLY WITH ENVIRONMENTAL REGULATIONS
– AS IT RELATES TO THE PRESENT CASE.**

A. I addressed this in my direct testimony. As I discussed, Mr. Moul testified that the plants' economic vitality is in doubt because market-based revenues for energy and capacity have been at historic lows and do not cover the costs of making the necessary investments and operating the plants. I also discussed how FirstEnergy admitted in its Annual Report that environmental and market conditions are so uncertain that *it cannot be determined* whether its plants will be profitable over the long term. The Commission therefore should not approve the Economic Stability Program based on this factor.

**Q. PLEASE COMMENT ON THE FOURTH FACTOR – THE IMPACT THAT THE
PLANTS' CLOSURE WOULD HAVE ON ELECTRIC PRICES AND THE**

1 RESULTING EFFECT ON ECONOMIC DEVELOPMENT IN THE STATE – AS
2 IT RELATES TO THE PRESENT CASE.

3 A. The Commission should not approve the Companies’ proposed Economic Stability
4 Program based on the fourth factor. As I discussed in my direct testimony, the Economic
5 Stability Program would subsidize the continued operation of these plants. Any subsidy
6 would harm the regional wholesale market because it would tend to drive away other
7 plant operators who do not receive subsidies for their plants. Driving away competition
8 through uncertainty (whether certain operators will receive anti-competitive subsidies)
9 would tend to result in higher prices over the long run. Moreover, the Companies’
10 customers would also pay higher prices because they would have to pay for the subsidies.
11 The Companies argue that keeping the plants open would have some economic
12 development benefits. But this argument is not persuasive because the Companies’
13 analysis only accounts for the alleged benefits of keeping the plants open. The
14 Companies’ economic development analysis does not appear to account for: (1) the
15 economic harm caused by forcing customers to pay higher electricity prices arising from
16 the subsidies; (2) the economic harm caused by distorting the wholesale market, and
17 driving away competitors who choose not to participate because of the anti-competitive
18 subsidies available to certain favored companies; or (3) the economic benefits which
19 would arise from the new plants which might be built, or the energy efficiency programs
20 which might be implemented, if these plants shut down due to market forces.

21 As I discussed above, the Companies argue that these plants are needed for
22 reliability reasons, and propose that the Companies’ customers should pay to keep the
23 plants running. But PJM is responsible for maintaining reliability of electricity supply. If

1 PJM determines that the plants are needed for regional reliability reasons, then PJM can
2 implement a must-run arrangement tailored to the length of time the reliability concern
3 exists, rather than the long-term arrangement proposed by the Companies. If the
4 Commission were to approve the Companies' long-term proposal, the cost of electricity
5 would be higher in the Companies' service territories than would occur if the
6 Commission would allow PJM to resolve this matter and to enter into an must-run
7 arrangement only for so long as the reliability concern exists. The Companies' proposal
8 would harm economic development by imposing higher electricity costs on the residents
9 and businesses within the Companies' service territories, relative to allowing PJM to
10 resolve the matter.

11 **Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING AN**
12 **INDEPENDENT ANALYSIS OF THE ECONOMIC STABILITY PROGRAM?**

13 A. Yes. At page 25 of the Opinion and Order in the AEP ESP case, the Commission
14 reserved the right to require a study by an independent third party, selected by the
15 Commission, of reliability and pricing issues related to AEP's proposal. I recommend
16 that the Commission reject the Companies' Economic Stability Proposal; however, if the
17 Commission is inclined to grant the proposal, it should first hire an independent third
18 party to study the reliability and pricing issues. As the AEP case and this case both
19 demonstrate, the parties' analyses of the pricing issues diverge greatly. I recommend that
20 the Commission hire an independent expert to do this analysis due to: (1) the amount of
21 money FirstEnergy's customers are being asked to pay to support these plants; (2) the
22 long-term nature of the proposal; and (3) the fact that the economic analysis rests on so
23 many projections of future conditions.

1 **Q. DO YOU HAVE ANY OTHER RECOMMENDATIONS REGARDING THE**
2 **COMMISSION’S CONSIDERATION OF THE ECONOMIC STABILITY**
3 **PROGRAM?**

4 A. Yes. I continue to support the recommendations I made in my direct testimony. In
5 addition, I note that when the Commission listed the four factors in the AEP decision
6 which it would consider when deciding whether to approve a non-competitive purchase
7 agreement, the Commission noted that these were the factors it would consider “at a
8 minimum.” I recommend that the Commission consider an additional factor in deciding
9 whether to approve a non-competitive purchase agreement – whether the Companies
10 have also taken all possible steps in managing their electric distribution systems to help
11 provide generation price stability; including but not limited to integrated volt/var control
12 and other means of grid optimization.

13 **Q. HAVE THE COMPANIES TAKEN ALL POSSIBLE STEPS IN MANAGING**
14 **THEIR ELECTRIC DISTRIBUTION SYSTEMS TO HELP PROVIDE**
15 **GENERATION PRICE STABILITY?**

16 A. No. The Companies have not attempted to make all possible cost-effective energy
17 efficiency programs available to customers. This is important because in many cases,
18 energy efficiency programs could be delivered at a lower cost than providing additional
19 generation resources. The Companies have also failed to open their billing system to
20 allow third parties to finance energy efficiency programs. I discussed this at length in my
21 direct testimony. It is ironic that utilities are always ready, willing and able to open up
22 their billing systems for non-regulated offerings by the utility or its affiliates. We never
23 hear any complaints that the utility’s billing system is too complex and too costly to

1 modify for these offerings. But when a third party wants to use the utility's billing
2 system, the utility always argues that this would be more complex and more costly than
3 sending a spaceship to Mars.

4 I also recommend that the Companies should implement all cost-effective
5 Integrated Volt/VAR Control ("IVCC") before the Commission considers approving a
6 non-competitive purchase agreement.

7 **Q. PLEASE EXPLAIN WHAT IVCC IS.**

8 A. IVVC involves the management of various electric distribution system assets and
9 advanced control technologies to "right-size" the voltage delivered to end-use electric
10 customers. IVVC can be used to reduce overall voltage levels, while ensuring these
11 voltages remain within acceptable standards for electric distribution. Reductions in
12 distribution system voltage have been demonstrated to result in reductions in energy
13 consumption across the electric circuits on which these are applied. For example, in a
14 September 2014 report published by the U.S. Department of Energy ("U.S. DOE") on
15 Duke Energy's smart grid investments entitled "Integrated Smart Grid Provides Wide
16 Range of Benefits in Ohio and the Carolinas,"⁴ which found that IVCC consistently
17 achieved 2% voltage reduction on over 200 Ohio distribution circuits where IVVC was
18 deployed, reducing system losses and fuel costs for Duke's power generation. This
19 report indicates that Duke has installed IVCC across 77% of its circuits in Ohio and the
20 Carolinas.

21 AEP filed a report in its gridSMART case (Case No. 13-1939-EL-RDR) on
22 September 13, 2013 which explained IVVC (also known as Volt/VAR Optimization) as
23 follows:

⁴ (available at: <http://www.energy.gov/sites/prod/files/2014/10/f18/DukeEnergy-SGIG-casestudy-Sep2014.pdf>)

Efficiency Benefits

AEP Ohio's gridSMART® Phase 2 VVO [Volt/VAR Optimization] is designed to realize a reduction in energy consumption where deployed, and a reduction in peak demand on circuits where VVO is deployed. Voltage standards exist in the electric utility industry, such as ANSI C84.1, that mandate an acceptable voltage range at the secondary of the distribution transformer. VVO enables a reduction of the average voltage that each customer on the circuit receives, thereby reducing the annual energy consumption of the feeder while maintaining the quality of service to the end-use customer. Based on results obtained through field demonstrations, AEP Ohio estimates that a 3 percent reduction in energy consumption and a 2 to 3 percent reduction in peak demand can be obtained on those circuits on which the technology is deployed.

Other Benefits

Along with the expected efficiency benefits, the technology associated with VVO also provides VAR support, offsetting the need for Generation and Transmission resources to provide VARs. VVO also promotes a "self-healing" grid by maintaining acceptable voltages after a "self-healing" event has occurred. The technology required for VVO will also augment other technologies to improve visibility into system performance and circuit automation.

Electric customers across circuits with active IVVC management and lower voltage levels typically consume less energy without needing to make changes to their individual consumption behavior. Investments in IVVC technology and grid modernization can result not only in energy reductions, but also may provide additional visibility and operational flexibility in responding to a variety of dynamic system conditions. Before the Commission considers approving a non-competitive purchase agreement, it should require the Companies to submit a cost/benefit analysis for all cost-effective IVVC on the Companies' distribution systems, and to obtain Commission approval for implementing the same. This would probably be a much more cost-effective

1 and cleaner method of providing for generation price stability. It is also important to note
2 that the emissions reductions obtained through IVCC could possibly be used as a
3 compliance tool under the Clean Power Plan. This could provide an economic
4 development benefit by lowering compliance costs.

5 **III. CONCLUSION**

6 **Q. DOES THIS CONCLUDE YOUR PRE-FILED SUPPLEMENTAL DIRECT**
7 **TESTIMONY?**

8 **A. Yes.**

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing has been served upon the following parties by electronic mail this 11th day of May, 2015.

/s/Trent A. Dougherty
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Summary: Testimony SUPPLEMENTAL DIRECT TESTIMONY OF CHERYL ROBERTO ON BEHALF OF ENVIRONMENTAL DEFENSE FUND AND OHIO ENVIRONMENTAL COUNCIL electronically filed by Mr. Trent A Dougherty on behalf of Ohio Environmental Council and Environmental Defense Fund