

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Ohio	:	Case No. 16-1852-EL-SSO
Power Company for Authority to Establish	:	
a Standard Service Offer Pursuant to	:	
R.C. 4928.143, in the form of an Electric	:	
Security Plan.	:	
	:	Case No. 16-1853-EL-AAM
In the Matter of the Application of Ohio	:	
Power Company for Approval of Certain	:	
Accounting Authority.	:	

**PREFILED TESTIMONY
OF
JACOB J. NICODEMUS
RELIABILITY AND SERVICE ANALYSIS DIVISION
SERVICE MONITORING AND ENFORCEMENT DEPARTMENT
PUBLIC UTILITIES COMMISSION OF OHIO**

Staff Exhibit _____

September 14, 2017

1 1. Q. Please state your name and business address.

2 A. My name is Jacob Nicodemus. My business address is 180 E. Broad Street,
3 Columbus, Ohio 43215.

4

5 2. Q. By who are you employed?

6 A. I am employed by the Public Utilities Commission of Ohio (PUCO).

7

8 3. Q. Would you briefly state your educational background and work history?

9 A. I have a Bachelor of Applied Science degree in electro-mechanical
10 engineering from Miami University and have participated in a number of
11 training seminars related to various areas of the utility industry. I began my
12 employment at the PUCO in 2009 as a Utility Analyst in the Rates and
13 Tariffs Department where I worked primarily with gas cost recovery and
14 related matters, including review of utility tariffs with regard to commodity
15 costs and rates. I was promoted in 2011 to a Researcher 3 position in the
16 gas pipeline safety section of the Service Monitoring and Enforcement
17 Department, and then promoted again in January 2014 to my current posi-
18 tion.

19

20 4. Q. What is your present position with the PUCO and what are your duties?

21 A. I am a Utility Specialist 2 and am responsible for monitoring and enforcing

1 compliance with various minimum service standards for regulated gas and
2 electric companies, including, but not limited to, those related to service
3 reliability and consumer protections.
4

5 5. Q. What is the purpose of your testimony in this case?

6 A. The purpose of my testimony is to discuss the reliability of Ohio Power
7 Company's (the Company) distribution system as it relates to whether the
8 Company has met the requirements of R.C. 4928.143(B)(2)(h).
9

10 6. Q. Regarding the reliability of a distribution system, please describe your
11 working knowledge of R.C. 4928.143(B)(2)(h).

12 A. This statute requires that before approving an electric distribution utility's
13 (EDU) distribution infrastructure incentive as part of its Electric Security
14 Plan, the Commission must examine the reliability of the EDU's distribu-
15 tion system to ensure that the EDU's reliability expectations are aligned
16 with those of its customers and that the EDU is placing sufficient emphasis
17 on and dedicating sufficient resources to the reliability of its distribution
18 system.
19

20 7. Q. How does Staff of the PUCO perform such an examination?
21

1 A. Staff of the PUCO (Staff) begins by looking at the EDU's approved minimum
2 reliability performance standards and evaluating whether those standards
3 have been met.

4
5 8. Q. Please explain what is meant by "minimum reliability performance
6 standards."

7 A. The minimum reliability performance standards are industry standards used
8 to measure and report reliability performance, as defined by the Institute of
9 Electrical and Electronics Engineers, Inc. (IEEE) and outlined in the "IEEE
10 Guide for Electric Power Distribution Reliability Indices," also known as
11 IEEE Std. 1366-2012.

12
13 9. Q. Which minimum reliability performance standards are used by Ohio
14 EDUs?

15 A. Per Ohio Administrative Code (Ohio Adm. Code) 4901:1-10-10(B), the
16 standards used by EDUs are the Customer Average Interruption Duration
17 Index (CAIDI) and the System Average Interruption Frequency Index
18 (SAIFI).

19
20 10. Q. Please explain how CAIDI is calculated and what it measures.

21 A. CAIDI is a measure of the average time required to restore a customer who
22 experiences an outage, reported as minutes per customer interrupted. It is

1 calculated by summing the duration of all interruptions experienced by
2 customers, and dividing that number by the total number of individual
3 customer interruptions.

4
5 11. Q. Please explain how SAIFI is calculated and what it measures.

6 A. SAIFI is a measure of the average number of interruptions that a customer
7 may experience, reported as interruptions per customer. It is calculated by
8 summing the total number of individual customer interruptions, and divid-
9 ing that number by the total number of customers on the system.

10
11 12 Q. How are CAIDI and SAIFI established for each EDU?

12 A. Ohio 4901:1-10-10(B)(2) states that an electric utility must file an applica-
13 tion to establish company-specific minimum reliability performance
14 standards. Ohio 4901:1-10-10(B) also provides guidance regarding the
15 filing requirements. The application is to include supporting justification
16 for the proposed methodology and each resulting performance standard.
17 The performance standards should reflect historical system performance,
18 system design, technological advancements, service area geography, cus-
19 tomer perception surveys, and other relevant factors.

20
21 The process concludes with a Commission order, thus establishing mini-
22 mum reliability performance standards for the electric utility.

1 13. Q. What is Staff's role in the standard setting process?

2 A. Staff evaluates the application, submits data requests to the EDU as needed,
3 and files comments. Staff also works with the EDU and other interested
4 parties in an attempt to come to a consensus on what the performance
5 standards should be, taking into consideration input from all parties
6 involved.

7
8 14. Q. When were the standards currently in place established?

9 A. On March 19, 2014, the current standards were established pursuant to the
10 Commission's Opinion and Order in Case No. 12-1945-EL-ESS and
11 became effective for the 2013 calendar year performance.

12
13 15. Q. Please describe the data that was used to set the current standards for the
14 Company.

15 A. The Company's application in Case No. 12-1945-EL-ESS proposed to
16 calculate the Company's minimum reliability performance standards based
17 on a five-year historical average plus a 10 percent adder to account for
18 annual variation, and additional adjustments to account for the impacts of
19 distribution automation and forestry. Other considerations included system
20 design, historical system performance, technological advancements, and
21 service area geography.

22

1 Ultimately, the standards were based on four-year historical averages, with
2 a ten percent adder for SAIFI and an eight percent adder for CAIDI.

3
4 16. Q. Has the Company met its approved reliability standards?

5 A. Yes. The Company has met its reliability standards each year since they
6 became effective. Ohio 4901:10-10(C) requires each electric utility to file
7 an annual report of reliability performance and supporting data. The table
8 below details the Company's reliability performance since the standards
9 were approved through 2016, which was the most recent performance data
10 available as of the date this testimony was filed.¹

11
12 Performance Against Reliability Standards
13 (Lower is Better)
14

	SAIFI	CAIDI
STANDARD	1.20	150.00
2013 PERFORMANCE	1.03	140.97
2014 PERFORMANCE	1.13	146.61
2015 PERFORMANCE	1.13	139.03
2016 PERFORMANCE	1.08	143.45

15
16
17 17. Q. Please describe the means by which the Company evaluates its customers'
18 reliability expectations.

19

¹ Ohio Administrative Code 4901:1-10-10(C) requires electric utilities to file their reliability reports for the prior year on March 31.

1 A. Ohio Administrative Code 4901:1-10-10(B)(4)(b) requires each electric utility to
2 periodically (no less than every three years) conduct a customer perception
3 survey under Staff oversight. Staff oversight includes ensuring
4 that certain questions are included and that the surveys are conducted over
5 four quarters to avoid seasonal bias.
6

7 18. Q. When did the Company last conduct a customer perception survey?

8 A. The Company's last customer perception survey was conducted in 2015;
9 results were provided to Staff in February 2016.
10

11 19. Q. What conclusions did Staff draw from the analysis of the survey results?

12 A. Upon review and analysis of the survey results, Staff concluded that resi-
13 dential and commercial customers' average reliability expectations were
14 exceeded by the Company's approved standards. That is, by meeting the
15 approved CAIDI and SAIFI standards, the Company will have exceeded its
16 customers' expectations.
17

18 20. Q. Do you believe the Company has met the requirements of
19 R.C. 4928.143(B)(2)(h)?

20 A. Yes. Based on the Company's successful performance against its reliability
21 standards and the results of its reliability surveys, Staff believes that the
22 Company has met the requirements of R.C. 4928.143(B)(2)(h).

1 21. Q. Does this conclude your testimony?

2 A. Yes, it does. However, I reserve the right to submit supplemental testi-
3 mony as described herein, as new information subsequently becomes avail-
4 able or in response to positions taken by other parties.

PROOF OF SERVICE

I hereby certify that a true copy of the foregoing Prefiled Testimony of Jacob J. Nicodemus was served via e-mail upon the following parties of record, this 14th day of September, 2017.

/s/Werner L. Margard III

Werner L. Margard III

Assistant Attorney General

Parties of Record:

amy.spiller@duke-energy.com
bojko@carpenterlipps.com
campbell@whitt-sturtevant.com
charris@spilmanlaw.com
christopher.miller@icemiller.com
cmblend@aep.com
cmooney@ohiopartners.org
cpirik@dickinsonwright.com
dborchers@bricker.com
dparram@bricker.com
dstinson@bricker.com
dwilliamson@spilmanlaw.com (
eakhbari@bricker.com
egallon@porterwright.com
ehewell@bricker.com
elizabeth.watts@duke-energy.com
fdarr@mwncmh.com
glover@whitt-sturtevant.com (
kboehm@bkllawfirm.com
kevin.moore@occ.ohio.gov
kurt.helfrich@thompsonhine.com
lhawrot@spilmanlaw.com
mjsettinieri@vorys.com
mkurtz@bkllawfirm.com
mleppla@theoec.org
mnugent@igsenergy.com
mpritchard@mwncmh.com
mwarnock@bricker.com

paul@carpenterlipps.com
perko@carpenterlipps.com
rdove@attorneydove.com
rick.sites@ohiohospitals.org
rparsons@kravitzllc.com
rsahli@columbus.rr.com
sechler@carpenterlipps.com
ssheely@bricker.com
stephanie.chmiel@thompsonhine.com
stnourse@aep.com
tdougherty@theoec.org
todonnell@dickinsonwright.com
tony.mendoza@sierraclub.org
whitt@whitt-sturtevant.com
william.michael@occ.ohio.gov
wvorys@dickinsonwright.com
glpetrucci@vorys.com
ibatikov@vorys.com
jdortch@kravitzllc.com
jeremy.grayem@icemiller.com
jkylercohn@bkllawfirm.com
joe.halso@sierraclub.org
joliker@igsenergy.com
mdortch@kravitzllc.com
mfleisher@elpc.org
michael.austin@thompsonhine.com
msmckenzie@aep.com

Attorney Examiners:

Sarah Parrot:

sarah.parrot@puco.ohio.gov

Greta See:

greta.see@puco.ohio.gov

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

9/14/2017 9:53:01 AM

in

Case No(s). 16-1852-EL-SSO, 16-1853-EL-AAM

Summary: Testimony Prefiled Testimony of Jacob J. Nicodemus submitted by Assistant Attorney General Werner Margard on behalf of the Staff of the Public Utilities Commission of Ohio. electronically filed by Kimberly L Keeton on behalf of Public Utilities Commission of Ohio