BEFORE
THE OHIO POWER SITING BOARD

In the Matter of the Application of Duke Energy for a Certificate of Environmental Compatibility and Public Need to Construct the C314V Central Corridor Pipeline Extension Project.	:	Case No. 16-0253-GA-BTX

PREFILED TESTIMONY
OF

Andrew Conway

SITING, EFFICIENCY AND RENEWABLE ENERGY DIVISION
DEPARTMENT OF RATES AND ANALYSIS
OHIO POWER SITING BOARD STAFF

STAFF EX. ___

April 2, 2019

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

A. My name is Andrew Conway. My business address is 180 E. Broad Street, Columbus, Ohio 43215.

2. Q. By whom are you employed?

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

3. Q. Please describe your job title and duties?

A. I am employed as an Engineering Specialist in the Siting, Efficiency, and Renewable Energy Division of the Rates and Analysis Department. In this position, I review technical issues associated with energy efficiency applications, renewable energy applications, assigned areas in Applications for a Certificate of Environmental Compatibility and Public Need to construct major utility facilities and economically significant wind farms, and other duties.

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

A. I have a Bachelor of Science degree in Chemical Engineering and minor in Chemistry from the University of Toledo. I am also a registered professional engineer in the State of Ohio. From 2001 to 2009, I was employed

by the Ohio Environmental Protection Agency as an environmental specialist. From 2009 to present, I have been employed in my current position at the Commission.

5. Q. Have you previously testified before the OPSB?

A. Yes. I previously testified in cases before the Board.

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

A. I am testifying in support of the Staff Report of Investigation (Staff Report) in this case. I am testifying in support of the specific sections of the Staff Report where I was the main contributing author. Specifically, I contributed to the basis of need; air, water, solid waste, and aviation, and pipeline specifications sections of the Staff Report.

7. Q. How did you evaluate the basis of need section?

A. I inspected the proposed project area, on field visits, on October 28, 2016, April 25, 2017, May 25, 2017, and March 1, 2019. I reviewed section 3 of the Application; the Applicant's Long-Term Forecasts; the Applicant's Gas Master Plan; and the December 2015 Management and Performance Audit performed by Exeter Associates, Inc. I also issued data requests to the Applicant. I also interviewed the Applicant on April 28, 2017, May 5,

2017, and January 31, 2019. O.A.C. 4906-5-03 provides the relevant factors for the review of need regarding this proposed pipeline.

8. Q. Did the Applicant explain the purpose of the proposed pipeline?

A. Yes.

9. Q. What is the purpose of the proposed pipeline?

A. The Applicant indicated that the purpose of the project is to construct the pipeline project as part of its plan to better balance system supply from north to south, to retire propane-air peaking plants, and to support the inspection, replacement, and upgrade of aging infrastructure.

10. Q. Did the Applicant provide specific projections of system conditions, local requirements, or any other pertinent factors that impacted the its opinion on the need for the proposed pipeline

A. Yes.

11. Q. What are some of the specific system conditions, local requirements, and pertinent factors?

A. **(1) Balancing the system from north to south.** The Applicant explained that its Foster Station is a critical station that typically serves up to 55 percent of the Ohio customer load and up to 60 percent of the peak design

day load in Ohio. A loss of supply from the Foster Station on a high demand day would result in widespread service outages. The Applicant also explained that currently there are pressure limitations around its WW Feed Station lines and Line C314 (a pipeline constructed in 2003) has limited capability of supplying gas to the system from the north to Line A and Line WW.

(2) Retiring the propane-air peaking plants. The Applicant also indicated that its current gas supply system includes propane-air peaking plants[1] that are used to meet demand during peak periods and emergencies. The propane-air plants in Erlanger, Kentucky and Cincinnati, Ohio, and the associated storage facilities, were placed in service in the early 1960s to provide an additional peaking supply and now serve up to 10 percent of the current peak day design load. The Applicant indicated that these propane-air plants and propane storage facilities are now reaching the end of their useful lives. If propane-air peaking plants would become unavailable, the loss of supply from these plants on a high demand day could result in widespread service outages. Additionally, the Applicant acknowledged that some of its current customers' operations are intolerant to the propane-air

[1] Propane and air are mixed to deliver the same energy content as natural gas.

mixture and must curtail their gas use when the propane-air peaking facilities are in operation.

(3) Supporting the inspection, replacement, and upgrade of aging infrastructure. The Applicant has several older natural gas pipelines that were not designed to meet the current pipeline integrity testing requirements. Furthermore, the Applicant needs to inspect, test and upgrade portions of its backbone system that brings gas from both north and south into the central Hamilton County area. The major elements of this backbone include Line A, Line V, and various Line AM natural gas pipelines. Portions of Line A and Line V were constructed in the 1940s, 1950s, or 1960s and need to be upgraded. Line A has reached maximum capacity. Without upgrades, Line A is not capable of supplying additional natural gas to the area.

12. Q. How does the proposed pipeline project address some of the specific system conditions, local requirements, and pertinent factors?

A. **(1) Balancing the system from north to south.** The Applicant's modeling shows that the Foster Station would serve 45 percent of the Ohio customer load after installation of the Central Corridor Pipeline. This is a noticeable reduction from the 55 percent with the current system. Although the Foster Station would still serve a considerable load, Staff agrees with the

Applicant that the 10 percent reduction is beneficial to Duke's overall system. The proposed pipeline project would bring increased pressure and volumes of natural gas into the system from the north. The Central Corridor Pipeline would eliminate some of the pressure limitation constraints around its WW Feed Station.

(2) Retiring the propane-air peaking plants. The installation of the proposed pipeline would allow the Applicant to retire the propane-air peaking plants. The retirement of the propane-air peaking plants would allow for customers that are intolerant of the propane-air mixture to no longer need curtailments when the propane-air peaking plants are in operation. When the propane-air peaking plants are in use, natural gas supplies containing the propane-air mixture can travel extensively throughout the Applicant's gas supply system. Retirement or loss of the propane-air peaking plants without a replacement supply source would cause the system to have inadequate supply to serve customers and affect service to up to approximately 50,000 customers on peak winter days. There are several system capacity restrictions and increasing flow from the northern gate stations to replace propane-air peaking is not currently possible.

(3) Supporting the inspection, replacement, and upgrade of aging infrastructure. Construction of the proposed Central Corridor Pipeline would allow the Applicant to replace this aging infrastructure while maintaining gas service.

13. Q. How did you evaluate the relevant load flow studies and contingency analyses?

A. The Applicant used a hydraulic modeling software program called Gas Synergi Version 4.7 to analyze its gas delivery system and specifically develop load flows and contingency analyses. This modeling software is commonly used in the oil and natural gas industry. The software models the behavior of operating gas systems and allows the testing of experimental changes to the system without the expense, time, or cost of actually testing a new pipe segment in the ground. The Applicant provided the relevant load flow studies and contingency analyses. I reviewed these by asking a data request of the Applicant and interviewing the Applicant on April 28, 2017, May 5, 2017, and January 31, 2019.

14. Q. What were notable findings from that review?

A. That there are several system capacity restrictions and that increasing flow from the northern gate stations to replace propane-air augmentation is not currently possible. I concurred with the Applicant's findings and analysis

that when the propane-air peaking plants are in use, natural gas supplies containing the propane-air mixture can travel extensively throughout the Applicant's gas supply system. Retirement or loss of the propane-air peaking plants without a replacement supply source would cause the system to have inadequate supply to serve customers and affect service to approximately 50,000 customers on peak winter days.

15. Q. Did the applicant explain how the proposed pipeline fits into regional expansion plans?

A. Yes. The number of customers have increased since the original case filings in 2016. The applicant explained and Staff has found that the proposed project fits into regional expansion plans. The Applicant identified several areas of its service territory where it has experienced and anticipates growth. The proposed project can accommodate anticipated growth of the system up to 45,500 thousand cubic feet per hour (MCFH) and allow future replacement/upgrade of aging infrastructure that has been pressure limited. Within the application, the Applicant stated the proposed Central Corridor Pipeline is one of several capital improvement projects recommended for inclusion in its long-range plan and has been part of the Applicant's long-term forecast for the last ten years.

16. Q. Are you responsible for any conditions in the Staff Report?

A. Yes. I am responsible for conditions 10, 35, 36, 37, and 38 of the Staff Report regarding air, water, solid waste, and aviation.

17. Q. Condition 10 states that the Applicant shall submit to PUCO in the next long-term gas forecast the state of its plans for the retirement of the propane-air plants. Why is this condition necessary?

A. The Applicant indicated that these propane-air plants and storage facilities are now reaching the end of their useful lives. Staff acknowledges that, after the installation and commercial operation of the Central Corridor Pipeline, the propane-air plants will be retired. Staff needs to be kept apprised of the status.

18. Q. Condition 35 states that the Applicant shall remove all temporary gravel and other construction staging area and access road materials after completion of construction activities, as weather permits, unless otherwise directed by the landowner. Impacted areas shall be restored to preconstruction conditions in compliance with the Ohio Environmental Protection Agency (Ohio EPA) General National Pollutant Discharge Elimination System (NPDES) permit(s) obtained for the project and the approved Stormwater Pollution Prevention Plan (SWPPP) created for this project. Why is this condition necessary?

A. This is a usually recommended standard condition to assure the Board that cleanup and site-restoration occur after construction activities.

19. Q. Condition 36 states that all construction debris and all contaminated soil shall be promptly removed and properly disposed of in accordance with Ohio EPA regulations. Why is this condition necessary?

A. This is a usually recommended standard condition to assure the Board that timely cleanup, site-restoration, and proper disposal of contaminated soil occur after construction activities.

20. Q. Condition 37 states that at least seven days before the preconstruction conference, the Applicant shall submit to Staff, for review, a copy of all NPDES permits including its approved SWPPP, approved Spill Prevention, Control, and Countermeasure procedures, and its erosion and sediment control plan. The Applicant must address any soil issues through proper design and adherence to Ohio EPA best management practices related to erosion and sedimentation control. Why is this condition necessary?

A. This is a usually recommended standard condition to assure the Board that the Applicant has the relevant environmental permits and plans prior to construction.

21. Q. Condition 38 states that The Applicant shall comply with fugitive dust rules by the use of water spray or other appropriate dust suppressant measures whenever necessary. Why is this condition necessary?

A. This is a usually recommended standard condition to assure the Board that the Applicant implements appropriate dust suppression and control measures during construction.

22. Q. Does this conclude your testimony?

A. Yes, it does. However, I reserve the right to submit supplemental testimony as new information subsequently becomes available 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 Andrew Conway, submitted on behalf of the Staff of the Ohio Power Siting Board, was served via electronic mail, upon the following parties of record, this 2nd day of April, 2019.

/s/ *Steven L. Beeler*
Steven L. Beeler

Parties of Record:

Jeanne.Kingery@duke-energy.com
Rocco.DAscenzo@duke-energy.com
Andrew.Garth@cincinnati-oh.gov
Howard.Miller@cincinnati-oh.gov
robert.holderbaum@puco.ohio.gov
john.jones@ohioattorneygeneral.gov
Robert.eubanks@ohioattorneygeneral.gov
jyskamp@fairshake-els.org
ecollins@fairshake-els.org
bfox@graydon.law
jlang@calfee.com
slesser@calfee.com
mkeaney@calfee.com
cjones@calfee.com
tburke@manleyburke.com
mkamrass@manleyburke.com
Bryan.pacheco@dinsmore.com
Mark.arnzen@dinsmore.com
miller@donnellonlaw.com
KCMcDonough@woodlamping.com
Roger.friedmann@hcpros.org
Michael.friedmann@hcpros.org
Jay.wampler@hcpros.org
tmd@donnellonlaw.com
butler@donnellonlaw.com
dstevenson@cinci.rr.com

ahelmes@deerpark-oh.gov
dborchers@bricker.com
dparram@bricker.com
joliker@igsenergy.com
Richard.tranter@dinsmore.com
Kevin.detroy@dinsmore.com
Kent.bucciere@gmail.com
lauxlawesq@gmail.com
Paula.boggsmuething@cincinnati-oh.gov

Administrative Law Judges

sarah.parrot@puco.ohio.gov
greta.see@puco.ohio.gov

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Summary: Testimony of Andrew Conway electronically filed by Ms. Tonnetta Scott on behalf of PUC