

KyPSC Case No. 2026-00112
TABLE OF CONTENTS

DATA REQUEST

WITNESS

TAB NO.

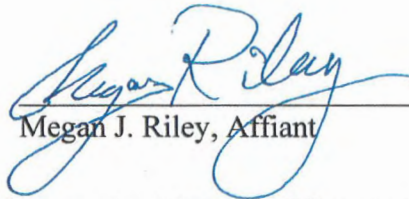
STAFF-DR-02-001

Megan J. Riley.....1

VERIFICATION

STATE OF OHIO)
) SS:
COUNTY OF HAMILTON)

The undersigned, Megan J. Riley, GM Engineering, Planning & Pipeline Integrity, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing data requests, and that the information contained therein is true and correct to the best of her knowledge, information, and belief.



Megan J. Riley, Affiant

Subscribed and sworn to before me by Megan J. Riley on this 14th day of October, 2026.



NOTARY PUBLIC

My Commission Expires: July 8, 2027



EMILIE SUNDERMAN
Notary Public
State of Ohio
My Comm. Expires
July 8, 2027

STAFF-DR-02-001

REQUEST:

Refer to the Application, Exhibit 5, Direct Testimony of Melton A. Huey page 7, lines 15-17, stating “[t]hese areas are experiencing low pressure in times of high consumption and the new pipeline will alleviate this pressure issue by increasing access to supply.”

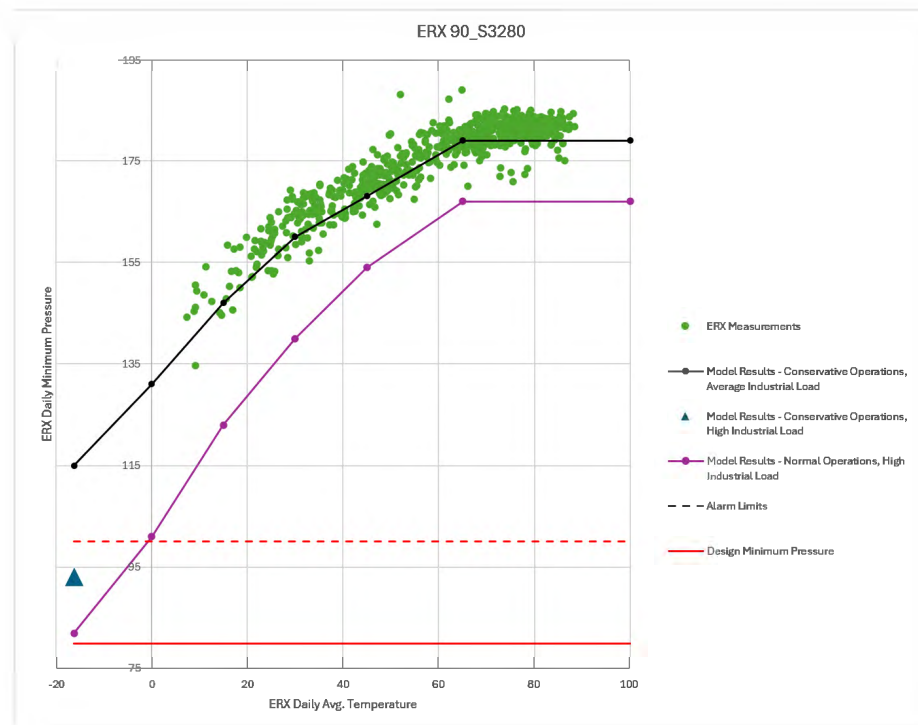
- a. Define “low pressure” as used in the testimony and explain how this definition is determined.
- b. Provide all examples of low pressure conditions in the affected areas.
- c. Identify low pressure conditions that led to outage conditions and state the duration of any outage and the number of customers affected.
- d. Explain all consequences of low pressure conditions on the affected areas.
- e. Describe the current likelihood of outages due to low pressure conditions in the affected area.
- f. Describe the future likelihood of outages by year for the next ten years due to low pressure conditions in the affected area based on expected growth.
- g. Provide any calculations used to determine likelihood of current or future low pressure conditions or outages.

RESPONSE:

- a. “Low pressure” is used to describe observed pipeline pressures that are consistent with modeled pressures that would approach the design minimum pressure during design day weather conditions for the pipeline system.

b. In 2021, Duke Energy Kentucky identified low pressure risks on UL45 using Synergi modeling software. In response, Duke Energy Kentucky reconfigured the distribution system feed arrangements to reduce reliance on UL45 as a supply source. This operational adjustment provided Duke Energy Kentucky time to evaluate the pace of the load growth in the area and implement a permanent solution.

In late 2024, Duke Energy Kentucky installed an ERX pressure measurement device with SCADA communications visible to Gas Control to provide operational monitoring for this area. Since the measurement device was installed, measured pressures indicate risk of undesirably low pressure at colder temperatures without the operational adjustment applied.



Key:

- *ERX Measurements: Actual pressure and temperature measurements since late 2024 from ERX in operation
- *Model Results – Conservative Operations, Average Industrial Load: Synergi model with operational adjustment and average load
- *Model Results – Conservative Operations, High Industrial Load: Synergi model with operational adjustments and peak load
- *Model Results – Normal Operations, High Industrial Load: Synergi model without operational adjustments and peak load
- *Alarm Limit: Current Gas Control Lower Limit Alarms

*Design Minimum Pressure: Standard minimum design pressure inlet for distribution system stations

c. Duke Energy Kentucky has not yet had any outages, in part, due to the operational adjustments described in part (b) above.

d. Low pressures, below the design minimum pressure, will cause downstream equipment to be unable to provide the required capacity to customers, increasing the likelihood of customer outages.

e. Duke Energy Kentucky is confident that the operational adjustment described in part (b) above will provide sufficient system performance to reliably meet anticipated customer demand during the upcoming winter heating season. Duke Energy Kentucky continues to monitor system performance through installed measurement and monitoring equipment. Should abnormal operating conditions occur, the monitoring equipment would provide notification, allowing Duke Energy Kentucky to assess conditions and take appropriate operational actions as necessary to maintain safe and reliable service.

f. Based on current load forecasts and anticipated customer growth within the affected service area, Duke Energy Kentucky expects that the operational adjustment described in part (b) above will serve as an interim measure and may not be sustainable over the long term. As customer demand increases, additional supply from UL45 is expected to be required to maintain system reliability and operational flexibility. The timing of this need will be dependent upon the actual rate of customer growth and resulting system demand.

If supply from UL45 does not feed the distribution system, Duke Energy Kentucky would anticipate customer outages within 10 years.

If supply from UL45 is returned to the distribution system, but no system enhancements are made to UL45, Duke Energy Kentucky would anticipate customer outages along UL45 within 5 years or sooner.

g. Duke Energy Kentucky uses Synergi Gas software to simulate the natural gas system to assess system pressures for various scenarios considering weather conditions, customer load requirements, system operating conditions, and the physical location of the facilities being served. See part (b) above for depiction of results and discussion on model runs and calculations for winter 2026/2027.

PERSON RESPONSIBLE: Megan J. Riley