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# Exhibit No. 230

Staff – Exhibit 230  
Francisco Del Pozo  
Rebuttal  
File No. ER-2024-0189

*Exhibit No.:*  
*Issue(s):* *Weather Variables*  
*Witness:* *Francisco A. Del Pozo*  
*Sponsoring Party:* *Mo PSC Staff*  
*Type of Exhibit:* *Rebuttal Testimony*  
*Case No.:* *ER-2024-0189*  
*Date Testimony Prepared:* *August 6, 2024*

**MISSOURI PUBLIC SERVICE COMMISSION**

**INDUSTRY ANALYSIS DIVISION**

**TARIFF AND RATE DESIGN DEPARTMENT**

**REBUTTAL TESTIMONY**

**OF**

**FRANCISCO A. DEL POZO**

**EVERGY MISSOURI WEST, INC.,**

**d/b/a Evergy Missouri West**

**CASE NO. ER-2024-0189**

*Jefferson City, Missouri*  
*August, 2024*

1 **REBUTTAL TESTIMONY**

2 **OF**

3 **FRANCISCO A. DEL POZO**

4 **EVERGY MISSOURI WEST, INC.,**

5 **d/b/a Evergy Missouri West**

6 **CASE NO. ER-2024-0189**

7 Q. Please state your name and business address.

8 A. My name is Francisco A. Del Pozo, and my business address is Missouri Public  
9 Service Commission, P.O. Box 360, Jefferson City, Missouri, 65102.

10 Q. Are you the same Francisco A. Del Pozo that provided direct testimony in this case?

11 A. Yes, I am.

12 **Executive Summary**

13 Q. What is the purpose of your rebuttal testimony?

14 A. The purpose of my rebuttal testimony is to address issues with the weather variables  
15 normalization adjustments made by Evergy Missouri West's ("EMW") witness Albert Bass.

16 Q. Please summarize your testimony.

17 A. Staff found an inconsistency in the baseline of the Normal Weather due to a switch  
18 between two 30-year periods that generated a dispersion of the observations. This dispersion  
19 results in problems to the regression used during the normalization process. In addition, Staff  
20 found missed holiday observations in the EMW workpapers.

21 **Normal Weather**

22 Q. In general, what is used for the Normal Weather?

1           A.     Normal Weather is calculated for a uniform 30-year normal period,  
2 observations are collected and consist of annual/seasonal, monthly, daily, and hourly averages  
3 and statistics of temperature, precipitation, and other climatological variables from  
4 almost 15,000 U.S. weather stations<sup>1</sup>. Normal weather serves two purposes: a reference period  
5 for monitoring current weather and climate, and a good description of the expected climate at a  
6 location over the seasons. Normal weather provides a basis for determining whether today's  
7 weather is warmer or colder, wetter or drier. They also can be used to plan for conditions beyond  
8 the time span of reliable weather forecasts<sup>2</sup>

9           Q.     What is the Normal Weather that Staff used for the current rate case?

10          A.     First, a climate “normal” is defined as the arithmetic mean of a climatological  
11 element computed over three consecutive decades.<sup>3</sup> Second, as detailed in my direct testimony,  
12 Staff utilized raw data series from the MCI Weather Station<sup>4</sup> available through an online  
13 data portal. Staff used a ranking method to calculate normal weather estimates of daily normal  
14 temperature values, ranging from the temperature that is “normally” the hottest to the  
15 temperature that is “normally” the coldest, thus estimating “normal extremes.” Staff ranked  
16 Mean Daily Temperatures (“MDT”) for each month of the 30-year history from hottest to  
17 coldest and then calculated the normal daily temperature values by averaging the ranked MDTs  
18 for each rank, irrespective of the calendar date. The ranking process results in the normal  
19 extreme being the average of the most extreme temperatures in each month of the 30-year

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<sup>1</sup> NOAA’s National Center for Environmental Information partners with regional climate centers and state offices across U.S. For the Midwest, the Midwestern Regional Climate Center (Purdue University) partners with NOAA to provide high-quality climate data, tools, interactive maps, and customized services.

<sup>2</sup> Retrieved on July 29, 2024. [New Climate Normal Information \(weather.gov\)](https://www.weather.gov/new-climate-normal-information)

<sup>3</sup> Retrieved on October 17, 2013, <https://www.ncdc.noaa.gov/data-access/land-based-station-data/land-based-datasets/climate-normals>

<sup>4</sup>Tier-1 Station ID 234358, Kansas City International Airport.

1 normal period. The second most extreme temperature is based on the average of the second  
2 most extreme day of each month, and so forth.

3 Q. What are Staff's concerns with the EMW weather variables?

4 A. EMW's workpapers use two 30-year historical periods. These periods are used  
5 to calculate the baseline to normalize the weather daily observations. Statistically, if elements  
6 being compared in each of these scenarios have different baselines, then they cannot be  
7 compared accurately until the baselines are made similar or accounted for. In this case, the use  
8 of two different periods generates dispersion in the weather input data and may affect the  
9 process of weather normalization. In addition, Staff found missed holiday observations in the  
10 EMW workpapers, a minor detail that was corrected.

11 Q. Does this conclude your testimony?

12 A. Yes it does.

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

In the Matter of Evergy Missouri West, Inc.     )  
d/b/a Evergy Missouri West's Request for     )  
Authority to Implement A General Rate         )  
Increase for Electric Service                    )


Case No. ER-2024-0189

**AFFIDAVIT OF FRANCISCO DEL POZO**

STATE OF MISSOURI     )  
  )  
  )     ss.  
COUNTY OF COLE     )

**COMES NOW FRANCISCO DEL POZO** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Rebuttal Testimony of Francisco Del Pozo*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

  
\_\_\_\_\_  
**FRANCISCO DEL POZO**

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 5<sup>th</sup> day of August 2024.

D. SUZIE MANKIN  
Notary Public - Notary Seal  
State of Missouri  
Commissioned for Cole County  
My Commission Expires: April 04, 2025  
Commission Number: 12412070

  
\_\_\_\_\_  
Notary Public