

Exhibit No.:
Issues: Weather Normal Variable
Witness: Manisha Lakhanpal
Sponsoring Party: MO PSC Staff
Type of Exhibit: Rebuttal Testimony
Case No.: GR-2010-0171
Date Filed: June 24, 2010

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

REBUTTAL TESTIMONY

OF

MANISHA LAKHANPAL

LACLEDE GAS COMPANY

CASE NO. GR-2010-0171

Jefferson City, Missouri
June 2010

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

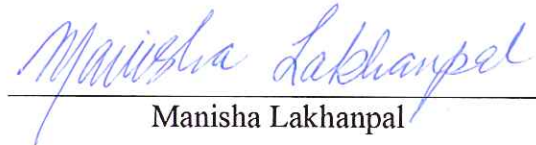
In the Matter of Laclede Gas Company's)
Tariff to Increase Its Annual Revenues for)
Natural Gas Service)
)

Case No. GR-2010-0171

AFFIDAVIT OF MANISHA LAKHANPAL

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Manisha Lakhanpal, of lawful age, on her oath states: that she has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of 4 pages of Rebuttal Testimony to be presented in the above case, that the answers in the following Rebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.

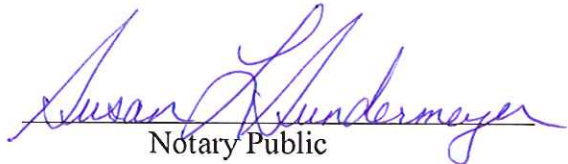


Manisha Lakhanpal

Subscribed and sworn to before me this 23rd day of June, 2010.



SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086



Notary Public

1 December 2000 as a benchmark to compare actual Heating Degree Day (HDD) from the test
2 year. The Company used monthly averages from July 1979 through June 2009 as their
3 weather normal benchmark. This recent 30-year average of weather data is also available
4 through NOAA, but is not considered “official” weather normal data.

5 Q. What is an official weather normal?

6 A. An official weather normal is an average of appropriately adjusted
7 observations of a weather element calculated over a prescribed period of time by government
8 climatologists. NOAA applies this concept to temperature by calculating 30-year temperature
9 normals as monthly averages for daily maximum, minimum and average temperature.
10 NOAA’s normal temperatures for each of the 12 calendar months for STL are calculated as
11 the adjusted average temperatures of the NOAA monthly sequential, over thirty years. The
12 end product is called NOAA thirty-year monthly temperature normals (published as
13 Climatology of the United States No. 81 Monthly Station Normals of Temperature,
14 Precipitation, and Heating and Cooling Degree Days, 1971-2000, 23 MISSOURI, NOAA,
15 National Environmental Satellite, Data and Information Service, National Climatic Data
16 Center, Asheville, NC).

17 Q. Why does NOAA make adjustments to historical temperature observations?

18 A. When monthly temperatures normals are calculated by NOAA special
19 measures are taken to ensure that all years of monthly temperatures in the calculations are
20 consistent. Without this adjustment, the historical monthly temperatures would be biased by
21 the effects of exposure changes, e.g., changes in observation practices, instrument type, or
22 instrument location and any inhomogeneities in the data due to missing temperature. To be

1 consistent, NOAA adjusts the historical monthly temperatures before they publish an official
2 weather normal.

3 Q. When will NOAA update its current normals?

4 A. NOAA is expected to publish its official normals for January 1981 through
5 December 2010 by next year.

6 Q. Have there been any exposure changes at STL in the past decade? If yes, then
7 has NOAA adjusted for that change?

8 A. Yes, there has been a change in the elevation of the instrument used for
9 measurement at the STL weather station. The change occurred on January 18, 2002, when the
10 elevation was changed from 173.1 meters to 161.8 meters. Since this change is outside the
11 current published official NOAA normal time period, it would be reflected as an adjustment
12 when NOAA publishes its new set of official weather normals next year. According to
13 NOAA, (Climatology Of The United States No. 81, Supplement No. 2, Annual Degree
14 Days, to Selected Bases, 1971 – 2000) - “Instrument changes and relocations can cause
15 numerous inhomogeneities in a weather station’s records.” Besides adjusting for exposure
16 changes, NOAA uses a complex computational procedure to estimate normal weather
17 variables.

18 Q. Has Ms. Krieger accounted for that change in her weather normal dataset?

19 A. It is unclear if she accounted for this change in the Company’s weather
20 normals.

21 Q. Please illustrate the differences between Staff and Company weather normals.

A. The differences are as follows:

Staff Normal HDD (using published NOAA normal time period of 1971-2000)	4751	Company Normal HDD (using 30-years from 1979-2009)	4551
Staff Actual HDD	4613	Company Actual HDD	4608
Adjustment - actual to normal	138	Adjustment - actual to normal	-57
Test year Warmer than normal by	3%	Test year Cooler than normal by	-1%

Q. Please explain the relevance of the results in the two datasets.

A. The weather normal adjustment factor based on the official published NOAA normals show that the test year was warmer than normal, which means Staff increased sales and revenues by about 3%. On the other hand, Company data shows that the test year was cooler than normal, and so they decreased sales and revenues by about 1%.

Q. Why does Staff prefer to use official weather normals?

A. Staff has consistently used official published NOAA normal, because the official normal is adjusted for exposure changes, missing data and is a result of a standard computational procedure followed by NOAA and the more recent 30-year weather data is not. Staff's approach does not benefit any one utility over another because it is standard data for all electric and gas cases. As can be seen in the illustration above, if Staff does not use a standard approach, then the normal can be selectively applied to the benefit of a particular group for a given test year.

Q. What is your recommendation to the Commission?

A. Staff recommends that the published official NOAA normal weather (1971-2000), be used as a benchmark over the weather normal data used by the Company.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.