

Exhibit No.:  
Issue: Weather Normalization  
Witness: Allen Dutcher  
Type of Exhibit: Direct Testimony  
Sponsoring Party: Union Electric Company  
Case Nos: EM-96-149

MISSOURI PUBLIC SERVICE COMMISSION

Case No. EM-96-149

REBUTTAL TESTIMONY

OF

ALLEN DUTCHER

ST. LOUIS, MISSOURI  
April, 1999

Exhibit No. 17  
Date 12-1-99 Case No. EM-96-149  
Reporter NJ

MISSOURI PUBLIC SERVICE COMMISSION

STATE OF MISSOURI

In the matter of the Application of Union Electric )  
 Company for an order authorizing: (1) certain )  
 merger transactions involving Union Electric )  
 Company; (2) the transfer of certain Assets, Real ) Case No. EM-96-149  
 Estate, Leased Property, Easements and Contractual )  
 Agreements to Central Illinois Public Service )  
 Company; and (3) in connection therewith, certain )  
 other related transactions. )

**AFFIDAVIT OF ALLEN DUTCHER**

STATE OF MISSOURI )  
 ) SS.  
 CITY OF ST. LOUIS )

Allen Dutcher, being first duly sworn on his oath, states:

1. My name is Allen Dutcher. I work in the City of Lincoln, Nebraska, and I am the Nebraska State Climatologist and Operations Climatologist for the High Plains Climate Center at the University of Nebraska.

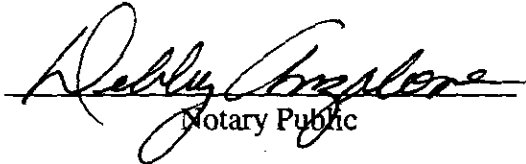
2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony consisting of pages 1 through 16, ~~with Appendix A and including Schedules 1-4~~, all of which testimony has been prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. EM-96-149 on behalf of Union Electric Company.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.



Affiant

Subscribed and sworn to before me this 31<sup>st</sup> day of March 1999.



Notary Public

DEBBY ANZALONE  
 Notary Public - Notary Seal  
 STATE OF MISSOURI  
 St. Louis County  
 My Commission Expires 4/1/00

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**REBUTTAL TESTIMONY  
OF  
ALLEN DUTCHER  
UNION ELECTRIC COMPANY  
CASE NO. EM-96-149**

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

**A.** My name is Allen Dutcher and I am employed by the University of Nebraska in Lincoln, Nebraska. My business address is High Plains Climate Center, 15 L.W. Chase Hall, University of Nebraska, Lincoln, Nebraska, 68583-0728.

**Q. What is your present position?**

**A.** I am the Nebraska State Climatologist and Operations Climatologist for the High Plains Climate Center.

**Q. How long have you held your position and briefly describe your responsibilities?**

**A.** I became the acting State Climatologist in November 1990, and the official State Climatologist in January of 1991. Since becoming the official State Climatologist in 1991, I have had the opportunity to work on a variety of projects including developing quality control routines for real-time electronic climate data retrieval, the continued development of the Automated Weather Data Network maintained by the High Plains Climate Center, development of an Internet climate data delivery system, modeling soil moisture conditions throughout the central High Plains, assisting in the development of evapotranspiration (water use) budgets for a variety of agricultural crops, and investigating climatic conditions that have the potential to impact crop yields up to 12 months prior to harvest.

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1           **Q.     Briefly describe your experience with the High Plains Climate Center?**

2           **A..    As an Operations Climatologist, I am responsible for providing climatic data**  
3           **analysis for the High Plains Climate Center ("HPCC"). My duties include acquiring climatic**  
4           **data from various monitoring networks located within the HPCC service region (CO, KS,**  
5           **NE, ND, SD, WY), disseminating climatic data to the general public, instituting quality**  
6           **control techniques to guarantee climatic data accuracy, and developing climatic data products**  
7           **for dissemination to the general public.**

8           **Q.     What other climatology positions have you held?**

9           **A.     I have served as the president of the American Association of State**  
10          **Climatologists, I am an active member of the Governor's Climate Assessment**  
11          **and Response Committee, and I presently serve as an advisory member and contributor to**  
12          **CropWatch, which is an interdisciplinary publication addressing environmental factors that**  
13          **impact crop yields.**

14          **Q.     What particular expertise do you have that is relevant to this matter**  
15          **before the Commission?**

16          **A.     To my knowledge, I pioneered the application of an engineering technique**  
17          **called "double mass analysis" to isolate variations in recorded temperature caused by the**  
18          **change in sensors, and to identify and rationalize the bias inherent in such changes.**  
19          **Significantly, both the Staff and the Company used my pioneering application to determine**  
20          **the appropriate adjustment in this case. I will be presenting further applications of this**  
21          **technique to the climatology community at our annual conference to be held later this**  
22          **summer. In simple terms, a double mass analysis compares, over time, the temperature**

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1 readings at the station in question with the temperature readings at surrounding stations. The  
2 goal is to isolate any change in the way the station in question is monitoring the environment.

3 **Q. What is the purpose of your testimony?**

4 **A.** I will address the proper method for measuring the change in the recording of  
5 surface air temperatures at Lambert Airport that resulted from the commissioning of the  
6 Automated Surface Observation System ("ASOS") on May 15, 1996. I have examined the  
7 careful analysis of the Ameren Corporate Planning Department for adjusting the temperature  
8 data recorded at Lambert since May 1996. I have concluded that the Ameren analysis is fully  
9 consistent with established procedures and practices within the climatology community, and  
10 it accurately measures the change that resulted from the commissioning of ASOS.

11 I have also considered the novel suggestion of the Missouri Public Service  
12 Commission Staff that Ameren realign the reams of historical data maintained from January  
13 1, 1961 through May 15, 1996. As an initial matter, the massive task proposed by the Staff is  
14 a practical impossibility. There are countless variables -- moisture, wind, sunlight, proximity  
15 to buildings or other man-made objects, advances in technology, movements in the physical  
16 location of temperature-reading sensors, time of observation changes, observer changes, heat  
17 island effects due to industrialization, warming trends that track population shifts, etc. -- that  
18 affect the reliability over time of temperature readings at any given weather station. It is  
19 essential to note that *documents reflecting the manifold changes at weather stations are often*  
20 *incomplete, especially at "second-order stations" or "cooperative observer sites," and, to a*  
21 *certain degree, such records simply do not exist.*

22 Even if such records existed, and even if one diligently tried to account for the  
23 staggering number of variables that affect temperature readings, the fact is that temperature

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1 measurements in the real world -- as opposed to a laboratory -- *necessarily* defy precision.

2 For example, a laboratory analysis conducted by the National Weather Service found that the

3 ASOS thermometer had a maximum error of +/- .9 ° F.

4 To realign nearly four decades of weather history would involve the analysis

5 of literally thousands of pages of meteorological data. In addition, one would need to

6 conduct in-person tours of each weather station site, interview all the personnel there, past

7 and present, who have actively been involved in climate data acquisition, and inspect an array

8 of historical records. This would be necessary, at a minimum, to determine how many sensor

9 changes and/or physical station moves occurred at each weather station site, because all of

10 this information may not be recorded and collected at a central location. In addition, one

11 would need to analyze city records for the past four decades to gauge urban development

12 throughout the St. Louis metropolitan area. This would be necessary, again at a minimum, to

13 account for changes in the physical location immediately surrounding the stations, as well as

14 to reflect additional heat generated by the city as a whole. At best, one could only hope to

15 come up with a confident estimate of the annual heat island increase due to urban expansion.

16 I have reviewed the Staff's analysis, and I have concluded that it falls far short

17 of what would be necessary, assuming it were possible, to re-write nearly four decades of

18 weather history. The Staff's analysis is, in point of fact, riddled with fundamental, glaring

19 flaws. To take just one example, the Staff purports to compare temperatures taken at

20 Lambert Airport to temperatures taken at two other stations for the period 1960-1996. *But*

21 *one of the comparison stations did not even exist until 1975.* These and other errors suggest a

22 remarkable -- and profoundly unscientific -- inattention to detail. Purporting to cleanse the

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1 historical records of errors, the Staff has injected its own errors and biases into those records.  
2 The Staff's analysis is, in short, totally unreliable.

3 **Q. Describe the new temperature recording system installed at Lambert**  
4 **Airport in June 1996.**

5 A. On May 15, 1996, the device for recording official temperature at the National  
6 Weather Service St. Louis site switched to the ASOS at Lambert Airport. The  
7 implementation of ASOS resulted in both a physical station move and a temperature sensor  
8 upgrade. The new sensors have undergone extensive environmental tests to insure accuracy,  
9 and they also have better enclosures around them that increase the ventilation required to  
10 obtain more accurate temperature readings. The physical move associated with the  
11 implementation of ASOS at Lambert Airport is significant. The new location is in close  
12 proximity to airfield runways. The old location was near office buildings, which can have the  
13 effect of reducing airflow, and parking lots, which can radiate heat. The distance between the  
14 old and new sites is about one mile.

15 **Q. Is there a side by side comparison of the temperature data recorded by**  
16 **the old temperature recording device versus the new temperature recording device?**

17 A. Prior to the commissioning of any ASOS site, a one- to two-year test period is  
18 conducted by National Weather Service personnel to assess the accuracy of the new system  
19 and to train personnel on general maintenance procedures associated with the system. NWS  
20 personnel were to compile records generated by both the old and new monitoring systems  
21 during this pre-commission period. This data was not archived by the NWS in the ordinary  
22 course of business. Moreover, the National Climatic Data Center (NCDC), which is  
23 ordinarily assigned the task of maintaining climatic databases, does not have the St. Louis

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1 ASOS pre-commission data in its archives. I am confident that if this data is ever located, it  
2 will demonstrate that the Ameren analysis was far more accurate than the Staff's analysis.

3 **Q. Absent a side by side comparison, how can temperature differences**  
4 **between old and new temperature recording systems at Lambert be quantified?**

5 A. As I described earlier, the double mass analysis can be used for this purpose --  
6 and indeed has been used by both parties before the Commission. When using double mass  
7 analysis, one calculates the daily differences between the site of interest and appropriate  
8 comparison sites. These differences are accumulated over time and plotted against the  
9 passage of time. If there is no change in the manner in which the station in question has  
10 monitored the environment, a linear function (straight line) will appear over time. If a change  
11 has occurred, then the plot will reflect this by a change in the slope of the line.

12 By calculating the change in the slope of the line after the introduction of a  
13 new monitoring system, a daily rate of change or bias can be calculated. It is then necessary  
14 to determine how to account for this bias. This analysis will capture both the bias introduced  
15 by the change in sensors at Lambert and the bias introduced by the change in sites, although it  
16 will not determine how much of the bias is attributable to each of these changes (and this  
17 information is, in any event, not really needed).

18 **Q. Describe your experience in using the double mass technique to quantify**  
19 **the temperature bias between different temperature recording stations.**

20 A. I have previously used the double mass technique to isolate the impact that the  
21 installation of an ASOS had at the Lincoln Municipal Airport for Lincoln Electric Systems.  
22 My analysis revealed a 1.9°F cooling bias that resulted from the introduction of ASOS and a



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1 physical station move. Lincoln Electric adopted my analysis and incorporated it into its  
2 weather normalization model.

3 **Q. Have you reviewed the analysis of the ASOS temperature change at**  
4 **Lambert Airport performed by the Ameren Corporate Planning Department?**

5 A. Yes, I have.

6 **Q. Please describe the method of analysis that Ameren conducted.**

7 A. Ameren selected six sites within a forty mile radius of the Lambert Station.  
8 Their engineers then focused on the time period March 1996 through August 1997. Ameren  
9 wisely removed certain data that, upon inspection, were revealed to be outside the upper and  
10 lower limits of acceptability -- that is, statistical outliers. For example, if all the sites in the  
11 St. Louis area reported a temperature of 60°, and one site reported a temperature of 80°,  
12 Ameren removed that erroneous reading. In the jargon of our field, Ameren put the data  
13 through a "statistical quality control check." Whenever possible, climatologists perform such  
14 a check to ensure, as far as possible, the reliability of their data.

15 In the course of conducting its careful analysis, Ameren's engineers interviewed  
16 personnel at weather stations. This proved to be invaluable in ferreting out potentially  
17 unreliable data. In fact, the Company was able to relay information to me about station  
18 moves and upgrades that I did not find in station history documentation. At the St. Louis  
19 WSFO cooperative station, Ameren's engineers learned that the sensor technology had been  
20 updated and its physical location had been moved from the Busch Wildlife Center to the  
21 Missouri Research Park. Ameren's engineers prudently concluded that the St. Louis WSFO  
22 was thus an inappropriate comparison station due to the location move, the sensor upgrade  
23 and the environment change.

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1 Ameren then conducted a double mass analysis, comparing the reliable temperature  
2 readings at the six comparison sites it had selected to the readings at the Lambert site for the  
3 relevant time period. For example, against the St. Louis Science Center station, the Lambert  
4 Airport station changed by 2.2. degrees. Ameren's engineers averaged the six figures and  
5 arrived at a figure of 2.0°

6 **Q. Did you review Ameren's analysis?**

7 A. Yes, I reviewed it with great care.

8 **Q. Please describe your review.**

9 A. I have inspected Ameren's EXCEL spreadsheet file containing their analysis  
10 data and resultant plots and have determined that they used the same data that I did in my  
11 independent study for Alton, St. Louis Science Center, St. Charles, and St. Charles 7 SW. I  
12 extracted the data from Ameren's spreadsheet and compared it to my data and it matched  
13 perfectly for maximum and minimum temperatures.

14 **Q. What is your opinion as to the reasonableness of this analysis?**

15 A. Ameren's engineers did admirable work, completely consistent with the  
16 highest standards of my discipline. Ameren's engineers used the appropriate data; and they  
17 correctly employed the double mass analysis. I am confident that their results are accurate.

18 **Q. The Missouri Public Service Commission Staff has suggested that the**  
19 **historical temperature data taken at Lambert from January 1, 1961 through May 15,**  
20 **1996 should be adjusted to make it consistent with current readings taken after the**  
21 **ASOS commissioning. Have you reviewed the analysis of the Missouri Public Service**  
22 **Commission Staff?**

23 A. Yes, I have.

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1           **Q.     Please comment on the Staff's attempt to realign nearly four decades of**  
2 **weather data.**

3           A.     As I stated earlier, I reject the premise that it is possible to accurately realign  
4 weather history to reflect current conditions. Besides correcting for station moves, sensor  
5 changes, and observation changes, one must attempt to adjust for the growth of the St. Louis  
6 metropolitan area. As a city grows it generates additional heat that is captured within the  
7 climate records. It is impossible to fully determine what the annual rate of increase for the St.  
8 Louis heat island effect has been over the last 38 years. By rewriting weather history, one  
9 must completely alter the climate data that has already been reviewed and filtered through a  
10 statistical quality control check by the National Climatic Data Center, and thereby deemed  
11 "official." In effect, the Staff is purporting to create a new data set by changing more than  
12 thirty years of historical data. And if any station move, sensor change, or observation shift  
13 occurs in the future, the new data set must also be adjusted once again to reflect current  
14 conditions.

15                     A simple question might be posed to those who now purport to undertake the  
16 task of realigning weather history: If the idea of altering historical weather data is  
17 appropriate, why was this not done when the Lambert Airport station was moved during the  
18 late 1970s, and twice during the 1980s? Of course, the answer is simple. No one thought it  
19 was, as a practical matter, *possible* to undertake this task. Accordingly, I reject the Staff's  
20 quixotic attempt to make corrections to the entire historical data base for Lambert Airport.  
21 Rather, Ameren should simply, as it has, incorporate the bias introduced by the  
22 commissioning of ASOS into their models on a prospective basis.

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1           **Q:    Is your point simply that it would be a lot of work to re-write nearly four**  
2 **decades of weather history?**

3           That's only part of the problem. The threshold, and certainly insurmountable,  
4 problem is that *most of the data needed to align nearly four decades of weather history*  
5 *simply does not exist.* This point cannot be emphasized enough. The Staff is purporting to  
6 make incredibly precise changes (in hundredths of degrees) to recorded temperature readings  
7 as long ago as 1961. But in many cases, the data needed to make such adjustments (*e.g.*,  
8 records relating to changes in sensor technology and location) are not archived. Thus, there is  
9 no way even to begin the monumental task allegedly undertaken by the Staff.

10           So, to be very clear: My problem with the Staff's analysis, at a fundamental level, is  
11 two-fold. First, all of the data needed to re-write nearly four decades of weather history does  
12 not exist. Second, even if all such records existed, which they emphatically do not, it would  
13 be humanly impossible to sift through that mountain of data and make the precise  
14 adjustments proposed by the Staff. It is, in short, no more possible to rewrite weather history  
15 than it is to re-write history of any kind.

16           **Q.    How does the scientific climatology community view changing historical**  
17 **climate data?**

18           A.    The climatology community rejects the novel, and ultimately futile, approach  
19 now embraced by the Staff. Scientists -- that is, persons interested in accuracy -- use official  
20 temperature records as the source for historical temperatures. If historical climate records are  
21 altered, an artificial data base is created which no longer replicates the observations taken at a  
22 particular site. The approach now suggested by the Staff would require continual adjustments  
23 to historical climate records to account for the myriad of variables that impact temperature

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1 readings over time (technology changes, sensor moves, shifts in demography, creation of  
2 man-made heat islands, *etc.*). Due to limitations in the precision of temperature readings, it  
3 is, however, impossible to make tiny adjustments in temperature readings -- and to attempt to  
4 do so is simply to inject a new, and possibly grave, source of error into the historical record.  
5 Indeed, after each successive adjustment, there is an increase in the potential that the new  
6 climatic data is equally far removed from the original measurements taken at the observation  
7 site, and from a "true" reading of what the temperature "actually" was decades ago.

8           By using a double mass technique, the historic climatic data base is  
9 maintained, while only the most recent event requires a correction term applied to it. If a  
10 sensor change or station move should occur at Lambert Airport in the future, one only needs  
11 to determine the effect of the most recent move and make the proper adjustments to all  
12 climate records since the inception of the move. All climate records up to the most recent  
13 move can be maintained in their original form.

14           **Q. But what is your response to Dennis Patterson's claim that the Staff's**  
15 **adjustments simply follow the methodology of the National Oceanographic and**  
16 **Atmospheric Administration (NOAA) (p.5, lines 5-7)?**

17           A. Most obviously, NOAA does not adjust historical climate data, as the Staff has  
18 attempted to do. Secondly, the Staff's analysis relies on estimated data to fill in the gaps  
19 caused by the inevitably missing data. NOAA, in contrast, does not use any estimated data in  
20 calculating monthly normals. The original NOAA methodology for the calculation of  
21 normals was co-authored by the current Director of the NCDC in an article published in  
22 1987, which makes this point very clear. *See Karl and Williams, An Approach to Adjusting*  
23 *Climatological Time Series for Discontinuous Inhomogeneities*, 26 Journal of Climate and

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1 Applied Meteorology 1744, 1755 (Dec. 1987) (“[M]issing data in the original series were  
2 estimated, but *not used in the adjustment scheme.*”)(emphasis added).

3 **Q. In your review of the Staff’s analysis, did the Staff properly undertake**  
4 **the method it set for itself?**

5 A. No. Remarkably, the Staff purports to undertake a novel methodology that  
6 would require an intense and meticulous review of reams of data, some of which may not  
7 even exist -- and then the analysis actually produced by the Staff does not undertake such a  
8 review, but rather is rife with obvious flaws and oversights.

9 **Q. What are the flaws that you found in the Staff’s analysis?**

10 A. There are at least three very basic, and very fundamental flaws, with the  
11 Staff’s analysis.

12 First, the Staff purports to compare the temperature readings at Lambert Airport  
13 against two other stations, St. Charles 7 SSW and the St. Louis WSFO, for the time period  
14 1961-1996. But the St. Charles 7 SSW station did not even exist until 1975, and the St. Louis  
15 WSFO station was discontinued in 1995, *before the installation of the ASOS*. One need not  
16 be a scientist to understand that something that does not exist cannot be a point of  
17 comparison. How this elementary point escaped the Staff is, frankly, difficult to fathom.

18 (Interestingly, it seems that the Staff made no effort whatsoever to review the data  
19 from 1961 to 1977 (which it nonetheless claims was consistent with the post-ASOS period,  
20 *i.e.* that there was no bias difference between the 1961-1978 time period and the post-ASOS  
21 period). I, however, took the time to evaluate this unsubstantiated assumption. I conducted a  
22 double mass analysis between Lambert and St. Charles, determining that the average daily  
23 bias for the 1961-1978 time period was *not* consistent with the post-ASOS period. In fact,

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1 my analysis indicated at least five distinct slope changes *within* the 1961-1978 time period.  
2 The last of these five distinct slope changes occurred in 1972. The subsequent 1972-1978  
3 time period had an average daily minimum temperature bias that was .9°F cooler than the  
4 post-ASOS period. In addition, the average daily maximum temperature bias for the 1972-  
5 1978 time period was 1.18°F warmer than the post-ASOS period.)

6       Second, the two stations used by the Staff are what are called "cooperative stations."  
7 The personnel at such sites are typically not trained professionals. When meteorologists  
8 employ data from cooperatives, it should be basic procedure to filter that data through a  
9 statistical quality control check. Readings flagged as statistical outliers are thereby discarded.  
10 It is vital to conduct a statistical control check, especially when one is using only *two*  
11 comparison sites. (Recall that each of these two stations, at various times, were not even in  
12 existence. Recall also that Ameren used *six* comparison stations.) But the Staff apparently  
13 simply took as a given all the data from the cooperatives observer sites, *and made (from what*  
14 *I can tell) no effort whatsoever to remove erroneous data.* When the double mass analysis is  
15 *correctly* applied, erroneous data is assigned a value of zero, and then removed so that there  
16 is no impact on the statistical derivation of slopes and slope changes.

17       Third, the time of observation at one of the stations selected by the Staff as a  
18 comparison point -- the WSFO station -- shifted over time. Time of observation shifts can  
19 impact the measurement of daily maximum and minimum temperatures. The Staff attempted  
20 to account for this change in observation time by developing its own time of observation bias  
21 by using 38-years of temperature data. It is unclear to me why a 38-year period was chosen  
22 when NCDC has already calculated the time of observation bias corrections for most  
23 cooperative observer sites across the United States based upon the thirty-year 1961-90 normal

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1 period. These bias corrections were developed to adjust cooperative observer sites to a  
2 uniform midnight observation time. By doing this, cooperative stations can be compared to  
3 first-order NWS sites that recorded daily maximum and minimum temperatures on a  
4 midnight observation schedule. Since the station of concern between parties is located at  
5 Lambert Airport and reports daily observations on a midnight schedule, there is no plausible  
6 rationale for adjusting this data to a cooperative station observation time.

7         These are three errors that jump off the page and inevitably call into question the  
8 entire analysis undertaken by the Staff. By no means, however, is this intended as an  
9 exhaustive list. The slap-dash character of the Staff's analysis suggests countless other  
10 lapses. For example, it does not appear that the Staff troubled to actually visit the two  
11 stations it used as comparisons sites. Had it done so, it would have learned, as Ameren did,  
12 that there was a significant change in the physical location of the sensors at the WSFO  
13 cooperative station. In addition, temperature readings at the St. Charles 7 SSW station taken  
14 by a liquid and glass minimum thermometer were updated to an MMTS system. (When a  
15 station used as a comparison site employs new sensor technology, that changes the double  
16 mass output, and must be accounted for in any analysis.) Had the Staff learned of these  
17 critically important facts, it would then have been required to adjust the data from those  
18 stations accordingly. But the Staff did not undertake its analysis in the manner of careful  
19 scientists. Rather, it seems to have known the answer it wanted, and it was prepared to take  
20 short-cuts to get there.

21         **Q. In light of these flaws, what is the reliability of the results of the Staff's**  
22 **analysis?**

23         **A. From a scientific perspective, the Staff's analysis is worthless.**



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Allen Dutcher

1           **Q:     The Staff has retained Dr. Steven Qi Hu as an expert in this case. Have**  
2 **you reviewed the testimony he last submitted?**

3           A:     Yes, I have.

4           **Q:     Are you the “Dutcher” referred to in Schedule 1-2 of Dr. Hu’s testimony?**

5           A:     Yes, I am. Dr. Hu states on that Schedule that he is applying the double mass  
6 analysis. As I stated earlier, I developed the application of that method of analysis to the  
7 measurement of variations in recorded temperature.

8           **Q:     In his testimony, Dr. Hu notes that there have been four location changes**  
9 **at Lambert Airport in the past 38 years -- 1978, 1985, 1988, and 1996. He states that**  
10 **“two of the four location changes, . . . 1978 and 1988, caused systematic warning**  
11 **biases.” (p.4, line 21) With regard to the ASOS change, Dr. Hu writes, “I found no bias**  
12 **from the location change in June [sic] 1996.” (p.6, lines 10-11) Please comment on**  
13 **Dr. Hu’s testimony.**

14          A:     My initial reaction was one of total puzzlement. In the climatology  
15 community, there is no question -- no question whatsoever -- that ASOS introduces a cooling  
16 bias. Dr. Thomas McKee of Colorado State University, perhaps the foremost expert on  
17 ASOS temperature discrepancies in the country, conducted a study of over 140 stations in the  
18 United States. He concluded that the *average* cooling bias was 1.3°. As I mentioned earlier,  
19 my analysis of the commissioning of ASOS at the Lincoln Airport found a 1.9° cooling bias.  
20 When ASOS replaced the old observation devices at Lambert Airport, the station location  
21 was moved away from a cluster of buildings near an asphalt parking lot, and to a grassy area  
22 located at the center of runways. This location change itself could be expected to produce a  
23 cooling bias. Thus, Dr. Hu’s suggestion that no cooling bias resulted from the

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1 commissioning of ASOS in May 1996, together with the station location change, is  
2 indisputably wrong.

3 **Q. Does that complete your testimony?**

4 **A. Yes, it does.**

UNION ELECTRIC COMPANY'S  
RESPONSES TO STAFF'S "CONDITIONS"

	BRIEF DESCRIPTION OF STAFF'S NECESSARY CONDITION	SPONSORING STAFF WITNESS	PAGE NO(S).	UE WITNESS	PAGE NO(S).	BRIEF DESCRIPTION OF UE'S POSITION
1	Replace UE's Ratemaking Proposal with Staff's	Mark L. Oligschlaeger	34	Brandt Birdsong	3-4 12-19	Adopt Company's proposal, or 50/50 sharing of merger savings with gross-up for income taxes, or extend ARP for five years.
2	No Direct Recovery of "Merger Premium"	Charles R. Hyneman	16 & 17	Brandt Birdsong	4-6 1-6, 12, 17, 19-20	Shareholders should be reimbursed for the merger premium from merger savings. Reimbursement need not be by direct recovery.
3	20 Year Amortization of Actual Transaction Costs and Actual "Costs to Achieve"	Thomas M. Imhoff	5-6, & 14	Brandt Baxter Birdsong	6 8 17	Ten-year amortization is preferable. Twenty years is punitive to shareholders.
4	Filing of Updated General Services Agreement with Opportunity for Staff Review	James D. Schwieleman	5	Brandt Baxter	6 Supp. Dir., pp. 1-2	UE will accept this condition.
5	UE Acceptance of Changes to Joint Dispatch Agreement	Daniel I. Beck	Schedule 1	Brandt Borkowski Legal Memorandum	6-7 9-10	UE will accept most of Mr. Beck's conditions on his Schedule 1. See Note 1.
6	Ameren or UE Will Not Seek to Overturn this Commission's Orders and Decisions on Affiliated Transactions	Legal Memorandum Jay W. Moore James D. Schwieleman Michael J. Wallis	Attachment 1 14 6 13-14	Brandt Legal Memorandum	7-11	See Note 2.
7	Ameren or UE Will Not Seek to Overturn this Commission's Orders and Decisions Regarding Electric Production	Legal Memorandum Daniel I. Beck	Attachment 1 Schedule 1	Brandt Borkowski Legal Memorandum	7-11	See Note 2.
8	Ameren or UE Will Not Seek to Overturn this Commission's Orders and Decisions Regarding Gas Supply, Storage and/or Transportation Service	Legal Memorandum Michael J. Wallis	Attachment 1 12	Brandt Borkowski Legal Memorandum	7-11	See Note 2.
9	Pre-Approval of Affiliated Transactions (Optional and Not Endorsed by Staff)	Legal Memorandum	Attachment 1	Brandt Legal Memorandum	7-11	See Note 2.

UNION ELECTRIC COMPANY'S  
RESPONSES TO STAFF'S "CONDITIONS"

BRIEF DESCRIPTION OF STAFF'S NECESSARY CONDITION	SPONSORING STAFF WITNESS	PAGE NO(S).	UE WITNESS	PAGE NO(S).	BRIEF DESCRIPTION OF UE'S POSITION
10 Access to Ameren's and Ameren Affiliates' and Subsidiaries' Books and Records	Tom Y. Lin	9	Brandt	11	UE will accept this condition to the extent required by rules finally established in Case No. 00-96-329. See Note 1.
	Jay W. Moore	15	Baxter	14-15	
	Mark L. Oligschlaeger	53-54	Borkowski	9-10, 27	
	Michael J. Wallis	12-13	Legal Memorandum		
11 Ameren and Ameren Affiliates and Subsidiaries to Provide Answers and Access to Officers and Employees	Daniel J. Beck	Schedule 1	Brandt	12	UE will accept this condition to the extent required by rules finally established in Case No. 00-96-329. See Note 1.
	Jay W. Moore	15	Borkowski	9-10, 27	
	Mark L. Oligschlaeger	53-54	Legal Memorandum		
	Michael J. Wallis	12-13			
12 Maintain Current Discovery Practices	Mark L. Oligschlaeger	56	Brandt Legal Memorandum	13	UE will accept this condition to the extent required by rules finally established in Case No. 00-96-329. See Note 1.
13 Accounting and Other Controls for Cost Allocations and Transfer Pricing	Mark L. Oligschlaeger	54-55	Brandt	13	UE will accept this condition to the extent required by rules finally established in Case No. 00-96-329. See Note 1.
			Baxter	15	
14 Ameren and UE Acceptance of Language Contained in Stipulation and Agreement from Case No. GR-93-106	Michael J. Wallis	11	Brandt Borkowski	14 27	UE will accept this condition.
15 UE to Continue to Provide Monthly Surveillance Reports	Jay W. Moore	42	Brandt Baxter	14 15-16	UE will accept this condition.
16 Quarterly Provision of Allocation Information	Mark L. Oligschlaeger	56	Brandt	14	UE will accept this condition.
			Baxter	15	
17 Maintain Payroll Records on Merger Related Activities Separately	Thomas M. Imhoff	11	Brandt Baxter	14-15 9-11	UE objects to this condition.
18 Electronic Format of Data Required under 4 CSR 240-20.080	Tom Y. Lin	9	Brandt Borkowski	15 6-7	UE will accept this condition.

UNION ELECTRIC COMPANY'S  
RESPONSES TO STAFF'S "CONDITIONS"

	BRIEF DESCRIPTION OF STAFF'S NECESSARY CONDITION	SPONSORING STAFF WITNESS	PAGE NO(S).	UE WITNESS	PAGE NO(S).	BRIEF DESCRIPTION OF UE'S POSITION
19	Electronic Format for After-the-Fact Resource Allocation Data	Daniel I. Beck	Schedule 1	Brandt Borkowski	15 9-10	UE will accept this condition.
20	Ameren to Provide Information Needed to Estimate Differentiated Required ROE	Jay W. Moore	23-Jan	Brandt Baxter	15-16 15-16	UE will accept this condition.
21	Prevention of Diversion of UE Management Talent	Mark L. Oligschlaeger	55	Brandt	16-17	UE objects to the specifics of this condition.

Note 1: Acceptance of Conditions 5, 10, 11, 12 & 13 should be read in conjunction with the Company's Legal Memorandum to be filed on June 7, 1996.

Note 2: Descriptions of UE's positions on Conditions 6-9 will be provided in a Supplemental Schedule 1 which will be filed with the Legal Memorandum.

UNION ELECTRIC COMPANY  
CASE NO. EM-96-149

PUBLIC COUNSEL DATA REQUEST

REQUESTED FROM: Jim Cook

DATE REQUESTED: May 1, 1996

INFORMATION REQUESTED: Please provide separate responses to each of the following questions regarding the document entitled "June 15, 1995 Goldman Sachs Presentation to Union Electric" contained in UE's response to OPC DR No. 119:

- a) Explain why this document was not provided in response to Staff DR No. 5, which requested UE to "[p]lease provide a copy of all documentation used by UE to analyze and ultimately decide to merge with CIPSCO. Provide a copy of all related supporting documentation used by UE to determine a reasonable price for CIPSCO."
- b) Explain why this document was not provided in response to Staff DR No. 30, which requested UE to "[p]lease provide a copy of all preliminary estimates and calculations that UE determined to be the level of cost savings for the merger prior to the finalized \$590 million savings the Company is now proposing to the Commission."
- c) Explain why this document was not provided in response to OPC DR No. 527.
- d) Explain why this document was not provided in response to OPC DR No. 531.
- e) Explain why this documents was not provided in response to OPC DR No. 535(d).
- f) Explain why this document was not provided in response to OPC DR No. 547.
- g) Which individual(s) at UE was (were) in possession of this document when Staff DR Nos. 5 and 30 were received by UE?

REQUESTED BY: Ryan Kind *RKC*

INFORMATION PROVIDED: See attached.

The information provided to the Office of the Public Counsel in response to the above information request is accurate and complete, and contains no material misrepresentations or omissions based upon present facts known to the undersigned. The undersigned agrees to immediately inform the Office of the Public Counsel if any matters are discovered which would materially affect the accuracy or completeness of the information provided in response to the above information.

DATE RECEIVED: \_\_\_\_\_

SIGNED BY:  \_\_\_\_\_

TITLE Sr. Vice President, Finance & Corporate Services

**Data Information Request  
from Office of Public Counsel to  
Union Electric  
Case No. EM-96-149**

**Information Requested:**

Please provide separate responses to each of the following questions regarding the document entitled "June 15, 1995 Goldman Sachs Presentation to Union Electric" contained in UE's response to OPC DR No. 119:

- a) Explain why this document was not provided in response to Staff DR No. 5, which requested UE to "[p]lease provide a copy of all documentation used by UE to analyze and ultimately decide to merge with CIPSCO. Provide a copy of all related supporting documentation used by UE to determine a reasonable price for CIPSCO."
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- c) Explain why this document was not provided in response to OPC DR No. 527.
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- e) Explain why this document was not provided in response to OPC DR No. 535(d).
- f) Explain why this document was not provided in response to OPC DR No. 547.
- g) Which individual(s) at UE was (were) in possession of this document when Staff DR Nos. 5 and 30 were received by UE?

**Information Provided:**

Many investment bankers typically try to solicit the Company's business and make their qualifications known regarding equity underwriting, debt underwriting and mergers and acquisitions advisory work. One such investment banker, Douglas Kimmelman of Goldman Sachs, happened to run into Don Brandt in the lobby of a hotel in New York on either May 11 or May 12, 1995. He asked for the opportunity to meet with D. E. Brandt and C. W. Mueller to discuss Goldman Sachs' expertise in the area of

mergers and acquisitions advisory work. The June 15 meeting was the date of this discussion. Union Electric had not asked Goldman to present anything specific at the meeting. The document presented was a Goldman Sachs marketing document, with no input from Union Electric. The document did not provide any information used by Union Electric in its negotiations with CIPSCO and it was not prepared for any negotiations with CIPSCO.

After negotiations began with CIPSCO, the Company decided to hire Goldman Sachs to help with the negotiations and evaluation of the proposed merger with CIPSCO. Goldman then prepared analysis and strategies to support UE in this negotiation. The June 15 booklet and analysis were not used in this analysis and advice.

With this background, the following are the answers to the specific questions in Data Request No. 670:

- a) DR 5 requested the "documentation used by UE to analyze and ultimately decided to merge with CIPSCO." The June 15, 1995 document was not used by UE to analyze or decide to merge with CIPSCO and, therefore, was not provided in response to this request.
- b) DR 30 requested "copies of all preliminary estimates and calculations that UE determined to be the level of cost saving for the merger." The June 15, 1995 document was not used by UE to determine the level of cost savings and, therefore, was not provided in response to this request.
- c) DR 527 requested a "copy of all documents created by UE or its agents, or CIPSCO or its agents, that contain descriptions or analyses of any adverse impact on UE shareholder that may be attributable to the merger." The June 15, 1995 document does not deal with the merger and, therefore, was not provided in response to this request. In addition, at the time the June 15, 1995 document was prepared, Goldman Sachs was not the agent of UE.
- d) DR 531 asks for copies of documents prepared by UE, created by UE or its agents for various purposes connected with the recovery of the merger premium. The June 15, 1995 document does not meet this definition and was not used by UE for these analyses. Therefore, it was not provided in response to this request.
- e) DR 535(d) requests documents that "contain descriptions or analyses of the potential dilution of the value of current shareholder holdings as a result of the merger." The June 15, 1995 document did not relate to the merger and, therefore, was not provided in response to this request.
- f) DR 547 requests studies, analyses, workpapers, calculations and other documents which were prepared "to determine a reasonable exchange ratio for purposes of any business combination with CIPSCO." The June



15, 1995 document was not prepared for or used for these purposes and, therefore, was not provided in response to this request.

g) D. E. Brandt and G. L. Rainwater

Prepared by Donald E. Brandt

**Schedule 2**  
**Page 4 of 4**

BEFORE THE PUBLIC SERVICE COMMISSION

STATE OF MISSOURI

MISSOURI PUBLIC )  
SERVICE COMMISSION )  
INTERVIEW WITH CLIFFORD GREENWALT )

TRANSCRIPT OF PROCEEDINGS

February 29, 1996



705 Olive Street • Suite 604  
St. Louis, Missouri 63101  
(314) 421-1000

COMPUTER AIDED TRANSCRIPTION

1 too I think the unfriendly arena is probably more difficult  
2 with a regulated utility like this than it would be  
3 otherwise. So, there's always that possibility, but we  
4 were not all that concerned about a takeover.

5 Q. So, maybe to ask the question a different way,  
6 UE -- the UE transaction was not a response to perhaps  
7 another potential transaction in the marketplace that you  
8 would have considered less favorable?

9 A. We did not have anyone that we were expecting  
10 to come in and take us over, no.

11 Q. The documentation makes it clear that it was  
12 CIPS that approached UE I guess at some point in June 1995  
13 which started the chain of events which led to the ultimate  
14 agreement. Had there been any previous discussions with UE  
15 prior to June 1995 at your level or at other levels of the  
16 company concerning merger and acquisition activities?

17 A. I don't know about other levels. There were  
18 none authorized. Chuck and I have known each other for a  
19 long time and we've been at industry meetings and we would  
20 maybe have breakfast together or something like this and  
21 just talk in general <sup>about</sup> where the industry was headed. We  
22 knew that both of our companies had -- a lot of the same  
23 philosophical issues were the same. We were both low cost  
24 companies and we were contiguous and we just talked in  
25 general that if -- not knowing where the industry was going

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CONCANNON & JAEGER

Schedule 3  
Page 2 of 4

COMPUTER AIDED TRANSCRIPTION

1 to go or if there was any interest on anybody's part, at  
2 least we ought to give one another a call. That was  
3 essentially all that was discussed on a very general basis  
4 until we completed our analysis in June and we presented  
5 that to our board of directors, and it was obvious to us  
6 that UE was the number one choice if we wanted to do  
7 anything. We were not at that point feeling desperate or  
8 anything of that nature, but we decided with that  
9 information that well, maybe have a conversation between  
10 Chuck and me to go into more detail to determine if there  
11 was interest <sup>by</sup> ~~on~~ both parties, that we would do that and  
12 perhaps see if there was any interest. That was essentially  
13 what we did in the first part of June.

14 Q. Okay. The sequence -- I think both yours and  
15 Mr. Millers' testimony in Missouri mentioned the June 19th  
16 meeting which I think he referred to as a luncheon meeting  
17 which really kicked things off. What contacts were made  
18 prior to June 19th?

19 A. As I said, at industry meetings.

20 Q. More specifically, the couple weeks before  
21 that were there just phone conversations back and forth?

22 A. There was no contact other than I called Chuck  
23 and I said -- I think Chuck was out of town at a meeting.  
24 I said when you get back maybe we ought to have lunch  
25 together and just kick around in more detail some of the

COMPUTER AIDED TRANSCRIPTION

1 things that might be of interest to both companies.

2 Q. Your testimony states in June of '95 a series  
3 of discussions occurred between us which ultimately  
4 resulted in a meeting on June 19, 1995, with Mr. Miller and  
5 me. The series of discussions, you're basically talking  
6 about phone messages and so on?

7 A. I'm talking about industry meetings, maybe a  
8 breakfast meeting where we talk about things in general.  
9 The only other thing that led up to the June 19th meeting,  
10 as I said, was my just calling Chuck and saying when you  
11 get back maybe we ought to get together. The series of  
12 meetings or discussions would have been, as a matter of  
13 fact, probably in Phoenix in 1995 and until I called Chuck  
14 we probably didn't have any discussions.

15 Q. In any case, what you're saying is the serious  
16 discussions --

17 A. Over a period of time.

18 Q. The serious specific discussions over this  
19 transaction started June 19th?

20 A. Yes.

21 Q. The negotiations which took place from that  
22 point on, I think your testimony mentions I guess the  
23 structure of the merged company, board of director  
24 composition and other issues as being very important.  
25 First of all, talking about the structure, you all have

X

MISSOURI PUBLIC SERVICE COMMISSION

INTERVIEW OF CHARLES W. MUELLER )  
President & CEO )  
Union Electric Company )  
1901 Chouteau )  
St. Louis, Missouri )

TRANSCRIPT OF PROCEEDINGS

February 13, 1996



705 Olive Street • Suite C  
St. Louis, Missouri 63101  
(314) 421-1000

COMPUTER AIDED TRANSCRIPTION

1 perhaps, look at them every year. CIPS always came up as  
2 the best candidate. And there was nothing rigorous about  
3 how often we did it. It was just something that we would  
4 say we better re-analyze this as something changed, and  
5 CIPS always came up as the best candidate.

6 Q. Once again, prior to the middle of last year,  
7 did you ever approach CIPS and say hey, let's talk about  
8 what's there or what could be there?

9 A. No. The only thing was I had known Cliff  
10 Greenwald for several years. We go to the Edison Electric  
11 Institute COE conferences together, have served on the  
12 board of directors of that, so I did get to know him some  
13 and we've had discussions on where the industry is going.  
14 They were mentioned in the press several times as a  
15 possible candidate of PSI, Public Service Indiana or  
16 however you characterize them. We talked about  
17 diversification and our lack of interest in diversification  
18 and how others have had problems with diversification. So,  
19 we saw, I think, a common thread that we may fit well  
20 together, but we never did say to them hey, would you merge  
21 with us or anything like that and they never said that to  
22 us. It really didn't happen until he called me to set up a  
23 luncheon and that was the June 19th luncheon where we  
24 actually reached a meeting of the minds where a merger  
25 might be feasible and we ought to set up some teams to look

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CONCANNON & JAEGER

1 at it and perhaps proceed.

2 Q. So, the initial meeting was with CIPS then in  
3 this particular transaction?

4 A. I would characterize it as a phone call. What  
5 we were doing -- They were looking at utilities around them  
6 and they had had discussions. I don't know to what extent,  
7 but they did talk to some people and did not like what they  
8 saw apparently. They came to us. They had talked to their  
9 board before they talked to us on June 19th to get the go  
10 ahead to talk to us. But that was the first indication we  
11 had and the first time we said hey, let's merge and the  
12 first time they said the same thing.

13 MR. MOORE: Do you know if they were  
14 approached by anyone else that they were interested in?

15 A. I don't really know how it came about. I  
16 haven't pried into it, so I really don't know.

17 MR. FEATHERSONE: Do you know why CIPS seemed  
18 to be anxious in seeking a merger?

19 A. I think they saw themselves as being too small  
20 to survive in the long-term. They're a very financially  
21 strong company, but at their size I've been told by their  
22 CEO that he thought they could have gone along for another  
23 three, four or five years as they were but that they would  
24 not survive.

25 Q. (By Mr. Oligschlaeger) From there, from the



MISSOURI PUBLIC SERVICE COMMISSION  
JEFFERSON CITY  
STATE OF MISSOURI

INTERVIEW OF DONALD E. BRANDT

March 28, 1996



Concanin  
& Jaeger  
General  
Court  
Reporters

705 Olive Street - Suite 604  
St. Louis, Missouri 63101  
(314) 421-1000

1           You end up owning 47 or 48 percent of Wolf Creek,  
2 and not the controlling interest, the operating side of  
3 Wolf Creek. We, as a company, don't like owning portions  
4 of plants, and we certainly don't like the idea of owning a  
5 portion of a nuclear plant when we're not in charge, and  
6 most of the growth in KCPL's service territory is in the  
7 Kansas side, and perceived as a negative there, and the  
8 service territories aren't contiguous. I'm sure there are  
9 several other negatives.

10           MR. KIND: Just to follow up on the alternative  
11 regulation plan, and I'm just sort of wondering about any  
12 thoughts that UE might have had as the approval of the  
13 alternative regulation plan was pending, at the same time  
14 that you were undergoing some merger discussions, and I  
15 have a copy of the plan here, and the commission issued an  
16 order July 21, approving it, and that order came into  
17 effect ten days later on August 1.

18           I'm just wondering if you or if anyone else in  
19 the company that you know of were involved in any  
20 discussions that perhaps the other parties of the  
21 alternative regulation plan or the commission should be  
22 advised of your merger discussions, prior to the commission  
23 actually approving the plan or, you know, becoming  
24 effective?

25           A. Well, when we had the hearing up there --

1 MR. OLIGSCHLAEGER: I think it was July 18th or  
2 somewhere within that vicinity.

3 A. At that point in time, one, we were no where  
4 close to having the deal done.

5 MR. MOORE: My recollection was the hearing was  
6 ten days to two weeks after, I guess, the first contact of  
7 that luncheon between Greenwald and <sup>T Muddle</sup> Miller, because I have  
8 dealt with this issue with the commissioners and things of  
9 that nature too, so that's my recollection. f

10 MR. OLIGSCHLAEGER: Okay. It happened while I  
11 was on vacation. I know that.

12 A. Regardless of what date it was, we didn't get  
13 anything going. The meeting between Greenwald and <sup>T woller</sup> Miller  
14 was on the 19th, and I don't recall the specific dates, but  
15 we didn't have an investment banker, and we didn't have a  
16 law firm. I know it took two or three weeks. Goldman was  
17 the first one we brought in. They didn't show up the next  
18 day. That was another week or two, ten days down the  
19 road. The law firm <sup>Wachtell WAS</sup> of Lipton ~~we~~ brought in. x

20 Nobody did anything seriously for a good two to  
21 three weeks, other than we started talking about potential  
22 synergies, and we didn't get into that in ~~too~~ detail until  
23 we brought Deloitte and Touche in.

24 And Bill <sup>Jarvis</sup> Jarvise and I -- Jim Cook was at the  
25 hearing.also. We talked about it, and we had these

1 preliminary discussions, and we were concerned about the  
2 appearance of it. If we did come out with something, we  
3 didn't know if we were going to come out with a merger at  
4 all, or if it was going to come out.


5 We knew it was going to be a number of weeks down  
6 the road, but it could have been August, September,  
7 October. It could have gone on for several more months,  
8 but there were some pretty strict security law requirements  
9 about people <sup>who</sup> ~~you~~ need to know, and you take on some pretty  
10 ~~serious~~ <sup>serious</sup> erroneous responsibilities.

11 We kind of concluded, and Bill <sup>Stuedes</sup> ~~Jarvice~~ and I put  
12 it in legalese. But the bottom line on it, we sit down and  
13 tell essentially a group of a dozen or so people.  
14 Theoretically, you could have narrowed it down further than  
15 that, but by the time you end up with all the commissioners  
16 and the key staff people, you have a dozen to twenty  
17 people, local counsel, all the intervenors, and Bob Johnson  
18 had an obligation to inform all his clients.

19 So you have a small group of two or three hundred  
20 of your closest friends that ~~you need to~~ know before you  
21 get it over with, and they are all in possession of this  
22 knowledge, and they have a potential significant impact on  
23 the transaction. If that information leaks out, it shoots  
24 the price of CIPSCO stock through the roof, and then you  
25 are sitting there trying to argue with CIPSCO and the

1 bankers, well, you know, this isn't where your stock price  
2 should be, and they are arguing about the leaked  
3 information.

4 The bottom line is, the premium cost or whatever  
5 you want to call it, would do nothing but go up, or  
6 potentially kill the merger, and then you blow \$600 million  
7 worth of savings over the next ten years.

8 MR. MOORE: For the record, the report and order  
9 says the commission by order, issued June 16, 1995 gave  
10 notice to the stipulation and established an intervention  
11 date. In the same order, the commission scheduled a  
12 hearing on July 19, 1995 for presentation of the  
13 stipulation, so that would have been, I guess, a month  
14 after the meeting with Mr. Greenwald <sup>+</sup> and Mr. <sup>Mueller</sup> Miller. 

15 MR. KIND: I interpret you had a concern about  
16 advising others that there was a possibility that a merger  
17 would occur. I guess, you would have even had concerns  
18 with just advising the other parties or the commission that  
19 something unusual was in the works, and we really would  
20 like to just defer consideration of this alternative  
21 regulation for a while, that would have had similar  
22 concerns?

23 A. I'm not sure of your question.

24 Q. It seemed like you were saying that you were very  
25 reluctant to state to the other parties or commission that

1 you were considering a merger, but did you think of other  
2 possibilities, like, just stating to the other parties or  
3 the commission that we just would like to put this on hold  
4 for unstated reasons right now?

5 A. No, we didn't. Basically, from the discussions  
6 that we had with the staff, and then obviously, Bill  
7 ~~Jarvice~~<sup>Spades</sup>, and I was from our side, the essence of the deal  
8 was to put ~~it all~~ together, and we would have <sup>had</sup> it done, but  
9 then it was the iterations of legalese after that.

10 Say, it came to you on the 19th of July that we  
11 have something big in the works. Would you put this off  
12 for a couple, three, or four months.

13 At that point in time, and again, correct me if I  
14 am wrong, the reading I got from the discussions was that  
15 they wanted to fix the sharing period of July 1 through  
16 June 30, but then it became obvious we didn't have anything  
17 in June, and we were going to lock in the July date, so I  
18 think really ~~the~~<sup>that</sup> time was of the essence and ~~unrealistic~~<sup>it was</sup> to  
19 point out that we have something big in the hopper, and we  
20 can't tell you anything more than that, is somewhat  
21 unrealistic.

22 MR. MOORE: I reviewed the transcript of the  
23 hearing, and none of the commissioners asked if there was a  
24 merger in the works. Commissioner Kenslow did ask if there  
25 were any activities that were going to affect capital

1 structure. Don's answer was, no, which in reality, none of  
2 this does affect capital structure. That's the only  
3 questionable question I saw on the transcript review.

4 A. We thought a lot about it, and we essentially  
5 reviewed how we would answer questions, and it wasn't an  
6 attempt to evade or to hide anything from anybody, but a  
7 simple matter of, we couldn't tell anybody about it,  
8 without risking blowing the whole thing up, and we think  
9 that the risk of that was significantly greater than the  
10 other risk in the proceeding.

11 You have got literally, as Jay says, as of July  
12 19, that's about the time frame, we couldn't have had the  
13 bankers and the lawyers. The bankers maybe in two weeks  
14 and the lawyers maybe in a week or so, and we didn't even  
15 have a draft of the document.

16 We were still talking about whether it was even  
17 feasible, and if it's feasible, what do you have to do, and  
18 structure <sup>4 holding</sup> ~~withholding~~ companies, and all what have you. It  
19 wasn't like we had the hearing on the 19th, and now it's  
20 the merger three days later.

21 MR. COOK: At that point, all of our secretaries  
22 didn't know what we were doing, and spouses got stories of  
23 why we were working late. They may or may not have  
24 believed it. It was an uncomfortable position, because we  
25 could not let anybody know, just the people that we were

1 working with daily, and yet, obviously, it was a concern  
2 that the commission or somebody might ask about that, and  
3 we didn't see any way that we could even suggest that there  
4 was something going on to anybody in the commission.

5 A. At that time and through the end of the merger,  
6 no one inside or outside, particularly outside, could be  
7 brought into the loop, unless it was specifically -- They  
8 had to talk to Chuck Miller and me, and we basically sat  
9 down and we got a form, and they signed it. Basically,  
10 they were being asked to work on this project in  
11 confidentiality, and essentially, they would be fired if  
12 they breathed a word to anybody.

13 MR. MOORE: We asked this question of Gary  
14 yesterday. In your opinion, did the incentive plan have  
15 any affect on the merger or the desire to proceed and go  
16 through with the purchase of CIPSCO at this point in time,  
17 where two years prior, you did not proceed?

18 A. No, I don't think it did. It's kind of a matter  
19 of their looking, and we were looking at doing something  
20 that is essentially permanent, whereas, this is a three  
21 year deal, and yes, we would like to see some form of it  
22 continued, and maybe it would or wouldn't, but regardless,  
23 it's a three year point in time, essentially, compared to  
24 something that is relatively permanent.

25 MR. FEATHERSTONE: Did your merger savings



1 sharing proposal consider the incentive plan in any way?  
2 Was it affected by the fact that you had an existing  
3 incentive plan with <sup>a</sup>the grid?

4 A. No. Other than I talked about earlier that the  
5 savings plan may be a vehicle to facilitate moving or  
6 allocating those savings.

7 Q. At least in a couple of years?

8 A. Yes. I mean that's the key thing. We couldn't  
9 let that be a driving force or something like that, knowing  
10 that the most might have been a year and nine months or two  
11 years max. In all likelihood, to be a year or a year and a  
12 few months.

13 MR. KIND: I'm going to go on to another  
14 subject. Yesterday during our interview with Gary  
15 Rainwater, we discussed Goldman Sachs' analysis and Goldman  
16 Sachs' presentation to the board last August, and I believe  
17 that Mr. Rainwater indicated that at the time of the  
18 Goldman Sachs analysis, UE believed that a 50/50 sharing of  
19 the savings was adequate to keep shareholders whole, and  
20 that then UE's view changed at a later time, and I'm just  
21 paraphrasing, of course, the conversation from yesterday.

22 MR. COOK: You're just paraphrasing. I'm not  
23 sure if the term adequate was used.

24 A. If Gary said that, Gary was wrong. If he did say  
25 that, that was his opinion, and it wasn't the company's or