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Missouri Public
Service Commission

**DEPOSITIONS
OF
LENA MANTLE**



BEFORE THE PUBLIC SERVICE COMMISSION
STATE OF MISSOURI

STAFF OF THE MISSOURI PUBLIC)
SERVICE COMMISSION,)

Complainant,)

vs.) Case No. EC-2002-1

UNION ELECTRIC COMPANY d/b/a)
AMERENUE)

Respondent.)

DEPOSITION OF LENA MANTLE

TAKEN ON BEHALF OF THE RESPONDENT

APRIL 17, 2002

COPY

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STAFF OF THE PUBLIC)
SERVICE COMMISSION)
Complainant,)
vs.) Case No. EC-2002-1
UNION ELECTRIC COMPANY)
d/b/a AMERENUE)
Respondent.)

DEPOSITION OF WITNESS, LENA MANTLE,
produced, sworn and examined on the 17th day of
April, 2002, between the hours of eight o'clock in
the forenoon of that day and six o'clock in the
afternoon of that day at the Governor Office
Building, Room 800, Jefferson City, Missouri, 65102,
before JENNIFER L. LEIBACH, a Court Reporter and
Notary Public within and for the State of Missouri,
in a certain cause now pending in the Circuit Court
of Cole County, State of Missouri, wherein the Staff
of the Public Service Commission is the
Complainant and Union Electric Company, d/b/a
AmerenUE is the Respondent.

1 A P P E A R A N C E S

2 FOR THE COMPLAINANT:

3 Dennis L. Frey, Senior Counsel
PUBLIC SERVICE COMMISSION

4 P.O. Box 899
Jefferson City, Missouri 65102
5 (573) 751-3234

6 FOR THE RESPONDENT:

7 Thomas M. Byrne, Esq.
ASSOCIATE GENERAL COUNSEL

8 Legal Department
One Ameren Plaza
9 1901 Chouteau Avenue
P.O. Box 66149, MC 1400

10 St. Louis, Missouri 63166-6149
(314) 554-2514

11

12 FOR LACLEDE GAS:

13 Rick Zuker, Esq.
ASSISTANT GENERAL COUNSEL-REGTULATORY

14 720 Olive Street
St. Louis, Missouri 63101
15 (314) 342-0533

16

ALSO PRESENT:

17

Richard Kovach
18 Rick Voytas
John Cauffman

19

20 SIGNATURE INSTRUCTIONS:

21 Waive presentment, obtain signature.

22

EXHIBIT INSTRUCTIONS:

23

Attach original exhibit to original transcript.

24

25

INDEX OF QUESTIONS

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QUESTIONS BY:
Mr. Byrne

PAGE NO.
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EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION	MARKED
1	November 20, 2001 transcript and errata sheet	5

1 IT IS HEREBY STIPULATED AND AGREED by
2 and between Counsel for the Plaintiff and Counsel for
3 the Defendant that this deposition may be taken by
4 Jennifer L. Leibach, Court Reporter and Notary
5 Public, thereafter transcribed into typewriting, with
6 the signature of the witness being expressly
7 reserved.

8 LENA MANTLE,
9 of lawful age, having been produced, sworn and
10 examined on the part of the Respondent, testified as
11 follows:

12 (Exhibit 1 marked for identification by
13 the Court Reporter.)

14 MR. BYRNE: My name is Tom Byrne and
15 I'm an Attorney for Union Electric Company doing
16 business as AmerenUE. Today we are here to take the
17 deposition of Lena Mantle of the Missouri Public
18 Service Commission staff and Missouri Public Service
19 Commission case number EC-2002-1.

20 DIRECT EXAMINATION

21 QUESTIONS BY MR. BYRNE:

22 Q. Good afternoon, Ms. Mantle.

23 A. Good afternoon.

24 Q. Before we get started, I'd like to go
25 over some preliminary matters that are similar to

1 what I went over in your first deposition. First of
2 all, if you don't hear one of my questions or
3 completely understand the question, will you ask me
4 to repeat or clarify it?

5 A. Yes.

6 Q. So that if you do answer a question,
7 would it be fair to assume that you heard and
8 understood the question?

9 A. Yes.

10 Q. Okay. Are you taking any medication
11 that might affect your ability to understand and
12 answer my questions?

13 A. No.

14 Q. Do you know of any other factor that
15 might impair your ability to understand my questions
16 and answer them?

17 A. No.

18 Q. One other thing is if you want to take
19 a break or need to take a break at any time, will you
20 please just let me know and we can stop?

21 A. Yes.

22 Q. Okay. And finally, I guess I'd like to
23 clarify some terms that I might use in some of the
24 questions. One is if I say UE or AmerenUE or the
25 company or Union Electric Company during the course

1 of the deposition, I'll be referring to Union
2 Electric Company. Is that okay?

3 A. Okay.

4 Q. And if I say Ameren, I will be
5 referring to the parent Ameren Corporation. Is that
6 okay, too?

7 A. Okay.

8 Q. With that out of the way, could you
9 please state your name?

10 A. Lena M. Mantle.

11 Q. And by whom are you employed, Ms.
12 Mantle?

13 A. Missouri Public Service Commission.

14 Q. And in what capacity are you employed
15 there?

16 A. I'm the Engineering Supervisor in the
17 Energy Department in the Operations -- Utility
18 Operations Division.

19 Q. And are you the same Lena Mantle that
20 filed direct testimony addressing weather
21 normalization and other issues in case number
22 EC-2002-1 in both July of 2001 and March of 2002?

23 A. Yes, I am.

24 Q. Okay. And does the latest version of
25 your testimony from March of 2002 consist of ten

1 pages and five schedules?

2 A. Yes, it does.

3 Q. And do you have a copy of that
4 testimony with you?

5 A. Yes, I do.

6 Q. Do you have a copy of your July 2001
7 direct testimony with you?

8 A. Yes, I do.

9 Q. Okay. And are you the -- well, I guess
10 one other clarification. If I ask about your direct
11 testimony without specifying which version, then I'm
12 referring to your most recent version of your direct
13 testimony.

14 A. Okay.

15 Q. Okay. Are you the same Lena Mantle
16 that I deposed in this proceeding on November 20th,
17 2001?

18 A. Yes.

19 Q. Okay. And the court reporter has
20 marked as Exhibit 1 some documents. Can you tell me
21 what those documents are?

22 A. It's the transcript of my previous
23 deposition by you on November 20th, 2001, and the
24 errata sheet that I completed to go along with it.

25 Q. Okay. And does the errata sheet that

1 you provided contain both substantive corrections and
2 corrections of things like typographical errors in
3 the deposition transcript?

4 A. There's just a couple of substantive
5 corrections. Most of them are words or brief
6 clarifications.

7 Q. Okay. And does your errata sheet
8 contain all of the substantive and non-substantive
9 corrections to the deposition that you have?

10 A. Yes.

11 Q. And there's nothing additional or any
12 updates to the errata sheet that you need to add at
13 this point?

14 A. No.

15 Q. Okay. Do you have any corrections to
16 the latest version of your direct testimony that you
17 filed?

18 A. No, I do not.

19 Q. Okay. Has your job title or employment
20 status changed since your last deposition in this
21 proceeding?

22 A. No, it has not.

23 Q. Okay. Can you explain briefly to me
24 what you did differently this time in your direct
25 testimony as compared to last time?

1 A. In the process of doing my analysis for
2 the July filing, I had some data that was supplied to
3 me and misrepresented. This time, I received the
4 correct data from utility -- from Ameren, and that's
5 probably the biggest difference between the July
6 analysis and the March analysis.

7 I also -- due to conversations with
8 people at Ameren and my previous depositions, became
9 aware of some other things in my analysis that needed
10 to be done, such as taking some customers out of
11 Ameren Illinois loads. That was corrected in this
12 March 1st filing.

13 Q. And did you update the time period that
14 you looked at in your March 1st version of your
15 direct testimony?

16 A. I wouldn't say that I updated it. I
17 did a completely new analysis.

18 Q. Okay. Did you do a completely new
19 analysis on a different period of time than you had
20 in your first direct testimony?

21 A. Yes, I did.

22 Q. Okay. And does that reflect the test
23 year that the commission ordered in this case?

24 A. Yes.

25 Q. Okay. Except for the things that you

1 mentioned before, was your -- the analysis that you
2 did the same as the other analysis? In other words,
3 I know the data was different, but in general, other
4 than the things that you mentioned, did you do
5 generally the same thing?

6 A. Yes, the methods that I used are the
7 same.

8 Q. Okay. And my recollection from your
9 last deposition is you're doing -- you're doing two
10 separate things, and perhaps you can refresh my
11 recollection a little bit. My recollection is you're
12 doing a weather normalization adjustment; is that
13 correct, that Ms. Pyatt uses to calculate revenues
14 for the company?

15 A. I reviewed the weather normalization
16 adjustments calculated by Ameren's services and
17 recommended that the Commission adopt those. Those
18 were adjustments to the sales that were provided to
19 Janice Pyatt.

20 Q. Okay. And then you have another -- you
21 weather normalize hourly inputs. Is that the right
22 way to say it?

23 A. The production cost model that is used
24 to estimate fuel and purchase power expense requires
25 an hourly load for the test year and I normalized net

1 system input for both UE and Ameren for the test year
2 to be used in that production cost model.

3 Q. And then did you provide that
4 information to Leon Bender, staff witness Leon Bender
5 to use in his production cost model?

6 A. Yes, I did.

7 Q. Okay. And I think you said before that
8 rather than you calculating the weather normalization
9 adjustment that's used by Ms. Pyatt, you used what
10 the company gave you; is that correct?

11 A. Yes, I reviewed what the company
12 supplied and adopted that.

13 Q. Okay. And where did you get the
14 information from?

15 A. I received the information in response
16 to data request 2914 that came from Su Yu and that's
17 S-U, Y-U of Ameren Services Corporate Planning
18 Department.

19 Q. Okay. And did you independently check
20 the accuracy of the information that Ms. Yu provided
21 you?

22 A. I reviewed what she gave me. I also
23 asked a fellow analyst within the Department, Dennis
24 Patterson, to compare that in comparison to the
25 weather data that he receives on a monthly basis.

1 Q. Okay. And you were satisfied based on
2 that review?

3 A. Yes.

4 Q. Okay. And did you run any of your own
5 analyses on the data that was given?

6 A. No, I did not.

7 Q. Okay. And my understanding as to what
8 was given to you is that was output from the Helm
9 computer model; is that correct?

10 A. That is correct.

11 Q. And my understanding also is that that
12 output that was given to you reflected weather
13 normalization using the staff ranking method; is that
14 correct?

15 A. That is not correct.

16 Q. Okay.

17 A. It -- normals, as I understand it, that
18 Ameren Services use is a ranked normal, but it is not
19 exactly what we rank normals for staff.

20 Q. And what's the difference?

21 A. The rank normals used by Ameren's
22 services and Helm is calculated by Helm. The 30
23 years of history are taken in both. The way Helm
24 creates normal and the way we do, and for each of
25 those 30 years, the weather is ranked and --

1 Q. For each day and each year of that
2 30-year period?

3 A. Well, for each year, there's 365
4 variables, one for each day, and those are ranked,
5 and then a normal is calculated as the average of
6 that rank. That's similar to both methods.

7 Helm then takes those and applies it to
8 the time period based on the rankings within a year.
9 Staff's method also keeps track of what month a rank
10 typically falls in. So for example, what month the
11 coldest day of the year typically falls in, what
12 month the hottest day of the year typically falls in.
13 It does that for each of the 365 days, and then we
14 attach the ranked normal to the correct month based
15 on that analysis and then to the days within the
16 month based on the ranking of the actual temperatures
17 in that month. So staff's ranking method takes it
18 one step further than Helm does.

19 Q. Are there any other difference between
20 the staff's method and the Helm model?

21 A. I'm assuming that -- I've been told
22 we're using the same weather agreed to in the past.
23 So that's my understanding of the differences.

24 Q. How about the weather response
25 function, is the weather response function -- does

1 the weather response function that the staff use the
2 same exact weather response function that's built
3 into the Helm model?

4 A. In this case, we did not calculate
5 weather response functions for the class sales data.
6 That would be implied in the Helm output that we
7 received from Ameren Services.

8 Q. Let me ask you this. What is a weather
9 response function?

10 A. Weather response function is the
11 relationship between the weather variable and usage,
12 daily usage.

13 Q. In other words, how much usage changes
14 as a result of temperature changes?

15 A. That can be measured using the weather
16 response functions.

17 Q. Okay. And I guess my question is is
18 that relationship that's built into the Helm model of
19 usage to weather -- I guess there's a mathematical
20 relationship. Is that true?

21 A. That is calculated for each class, yes.

22 Q. Okay. Is the same mathematical
23 relationship that's built into the Helm model, the
24 one -- the same as the one the staff uses in the
25 weather normalization?

1 A. In this case, we did not use a weather
2 response function for the weather normalization of
3 class sales.

4 Q. Okay. But --

5 A. We just received the output from Ameren
6 Services and adopted that.

7 Q. Okay. I understand. I think I'm not
8 asking it right. You did -- would it be fair to say
9 that the staff did weather normalize the hourly
10 inputs using its weather normalization model?

11 A. Yes, we did weather normalize net
12 system hourly input.

13 Q. Okay. And when you did that, did the
14 normalization methodology that you use have the same
15 weather response function as the normalization that
16 occurred on the other side of the equation with the
17 Helm model or are they different?

18 A. They are different because what is in
19 Helm corresponds to the specific classes, which
20 respond to weather differently, each differently.
21 Net system input is an aggregation of the usage of
22 all types of customers.

23 Q. Okay.

24 A. And the weather response function was
25 calculated for that aggregation.

1 Q. Okay. And I guess the reason I ask
2 this is it's my understanding that at the end of your
3 analysis, the hourly input data is reconciled against
4 the weather normalized sales; is that correct?

5 A. The weather normalized sales plus
6 losses and company usage.

7 Q. Okay. And to the extent that you're
8 reconciling those two results of your analysis, it
9 seems to be relevant whether they have the same
10 weather response functions. Is that not accurate?

11 A. No, that's not accurate.

12 Q. Okay. It's not an inconsistency to
13 reconcile one weather normalized set of data with
14 another weather normalized set of data when they have
15 different weather response functions? That's not an
16 inconsistency?

17 A. There are different sets of data. What
18 goes into class weather normalization of sales is
19 estimates of hourly class loads that's collected
20 through and estimated using the research data.
21 That's different for each customer class. So that is
22 the best way to weather normalize the individual
23 classes. Net system input, again, is the aggregation
24 of all those classes, and so its response is not the
25 same as any given class, but it's a combination of

1 all the classes, and so therefore it would be
2 different than any class.

3 Q. Let me ask you this. Are there other
4 methods, aside from the ranking method, that the
5 staff prefers for calculating weather normalized
6 sales?

7 A. I think there's a terminology problem
8 here. We do not use a ranking method to weather
9 normalize sales.

10 Q. Okay.

11 A. We use a ranking method to calculate
12 the normal weather variables.

13 Q. Okay. Which are then used to calculate
14 weather normalized sales; is that correct?

15 A. That's correct.

16 Q. Okay. Is there a different -- I guess
17 the better way to ask the question then is is there
18 -- are there other ways to calculate normal
19 temperature besides the ranking methodology?

20 A. Yes, there are.

21 Q. Okay. What's another method?

22 A. NOAA publishes normals based on a
23 30-year history. Another measured normals is typical
24 meteorological year, which takes a month of history
25 that's considered normal and combines twelve months

1 from twelve different years to get normals. Another
2 method is to average across 30 years all the weather
3 variables on January 1st and then average January 2nd
4 and January 3rd. You could use 90 years of weather
5 to do any of these methods. So there's a lot of
6 different ways to calculate daily normals.

7 Q. Let's talk about the NOAA method for a
8 second. Can you explain to me how the NOAA method is
9 different than the ranking method?

10 A. I'm not an expert on NOAA's normals,
11 but to my understanding, NOAA comes up with what it
12 believes to be a normal for a calendar month and then
13 allocates that across the days based on a spline
14 function, a smooth curve, does that for each of the
15 twelve months.

16 Q. Okay. And then what does NOAA stand
17 for?

18 A. National Oceanic and Atmosphere
19 Administration.

20 Q. And are you aware of whether the Helm
21 model permits you to select as an option the NOAA
22 method for calculating normal temperatures rather
23 than the ranking method?

24 A. Normal weather can be calculated by
25 Helm or input into Helm, so you can put any series of

1 weather variables in as normals.

2 Q. Okay. And let me ask this about the
3 NOAA method, too. Is -- would it be fair to say that
4 the NOAA method for calculating normal temperatures
5 is the most widely used method?

6 A. The NOAA normals are used for a lot of
7 different things. More importantly than the usage,
8 how much people use any weather series, it's more
9 important to understand what you are trying to
10 measure and what your objective of your analysis is.

11 Q. But notwithstanding that, I'm asking
12 you is it the most commonly used?

13 A. I don't know that for sure.

14 Q. Okay. Do you think it's the most
15 commonly used?

16 A. I know it's used a lot.

17 Q. Is it sort of the industry standard for
18 weather normalization?

19 A. I don't know.

20 Q. Okay. Did you look when you obtained
21 the results from Ms. Yu, did you run the Helm model
22 or ask for results from the Helm model using the NOAA
23 method or any other method for calculating normal
24 temperatures?

25 A. No, I did not ask Ms. Yu to rerun Helm

1 using any other type of normals.

2 Q. Okay. So you didn't -- you didn't
3 compare your results to any other alternative way of
4 calculating normal weather?

5 A. No, I did not.

6 Q. Okay. Let me ask you what -- my
7 understanding is you look at 30 years of data in your
8 methodology; is that correct, 30 years of temperature
9 data of daily temperature data?

10 A. In calculating daily normals, yes, we
11 do.

12 Q. And what 30-year period do you use?

13 A. 1961 through 1990.

14 Q. And how come you don't use a more
15 up-to-date 30-year period?

16 A. Across time, instruments that measure
17 temperature are moved at NOAA's station and this
18 occurred at St. Louis airport. What happens is NOAA
19 goes back and adjusts the history during that 30-year
20 period to be consistent with where the temperature is
21 measured currently.

22 Q. But, I mean, why wouldn't you use the
23 30-year period from 1970 through -- '71 through 2000?

24 A. Because that just became available from
25 NOAA.

1 Q. When did it become available?

2 A. I believe within the last month.

3 Q. If you would have had that data at the
4 time you filed your testimony, would you have used
5 it?

6 A. I don't know.

7 Q. Okay. Do you know what the amount of
8 the weather adjustment -- and I guess by amount, I
9 mean in kilowatt hours of the weather adjustment
10 you're sponsoring is?

11 A. Total for the year?

12 Q. Yes.

13 A. The normalization for weather -- the
14 adjustment due to weather is 969,081,000 kilowatt
15 hours.

16 Q. And does that appear in your March
17 direct testimony anywhere?

18 A. Not summarized.

19 Q. Well, does it appear not --
20 unsummarized in there?

21 A. Yes, it's in Schedule 2, I believe, of
22 my testimony by class.

23 Q. Okay. And so to figure out what your
24 total adjustment is, do I add all the numbers in the
25 total column? Is that correct?

1 A. That's correct.

2 Q. And that would give me how many
3 kilowatt hours are in your weather adjustment, right?

4 A. Actually, what's in Schedule 2 is in
5 megawatt hours.

6 Q. Oh, okay.

7 A. So you would have to multiply the sum
8 times 1,000 to get kilowatt hours, but that's
9 correct.

10 Q. Okay. And then my understanding is you
11 give that information to Ms. Pyatt; is that correct?

12 A. That is correct.

13 Q. And then she has to price out the
14 kilowatt hours in your weather adjustment; is that
15 correct?

16 A. Yes, she calculates an adjustment to
17 revenue based on these adjustments.

18 Q. And are you involved in that process at
19 all?

20 A. I've helped her in the past, yes, but I
21 did not do it for this filing, March filing.

22 Q. Do you know how much of a revenue
23 adjustment Ms. Pyatt calculated for the weather
24 adjustment?

25 A. Reading off Schedule 3 of her

1 testimony. It's a negative \$60,673,332.

2 Q. Okay. And do you know how she
3 calculated that number?

4 A. As a part of the settlement agreement
5 in the UE and CIPS merger, there was laid out a way
6 to calculate a revenue adjustment for the end of the
7 first electrical training regularization plan, EARP.
8 She followed the example of that document. It said
9 that she would use a certain block in each type of
10 rate, or told how to calculate what kind of rate each
11 class would be adjusted by.

12 Q. And do you know if she followed that in
13 this case?

14 A. Yes, she did.

15 Q. Okay. And just sort of a dumb question
16 is her adjustment -- is she increasing revenues or
17 decreasing revenues in her weather adjustment?

18 A. The adjustment to revenues is a
19 negative adjustment, so therefore it's reduction in
20 base revenues.

21 Q. During the test year?

22 A. During the test year.

23 Q. Okay. Do you know how -- how much of
24 an impact on revenues changes in the kilowatt hours
25 or megawatt hours of your weather adjustment -- how

1 big of a difference that makes in revenues? For
2 example, and that was a poorly worded question. For
3 example, do you know if you changed the kilowatt
4 hours by one percent, there's so many dollars of
5 impact that Ms. Pyatt would calculate on the test
6 year revenues?

7 A. Are you asking me if I know what that
8 amount is?

9 Q. Yes.

10 A. No, I do not.

11 Q. Okay. Let me ask you this. Could you
12 explain for me how the ranking method of calculating
13 normal weather -- or I guess it's a broader question
14 than that. How staff's weather normalization
15 adjustment would be calculated in a shoulder month
16 where there are both heating degree days and cooling
17 degree days?

18 A. Are you talking about weather
19 normalization of sales or net system input?

20 Q. Sales.

21 A. That is determined by the analyst who
22 sets up the Helm model, what the seasons are that he
23 or she might choose, and how Helm estimates the
24 response in those shoulder months.

25 Q. Okay. And do you know what choices the

1 analyst made in this case to get the data that was
2 provided to you?

3 A. No, I do not.

4 Q. Okay. And just so I understand, based
5 on those choices, you could reach a different result
6 for the shoulder months. Is that fair to say?

7 A. You could reach a different adjustment
8 for a change in weather for different months, yes.

9 Q. Okay. Okay. After you give the
10 weather normalized sales number to Ms. Pyatt, then my
11 understanding is you calculate hourly inputs; is that
12 right, or weather normalized hourly inputs for sales;
13 is that correct?

14 A. Yes.

15 Q. And how do you do that, just briefly?

16 A. I start with the net system input and
17 in this case, I had to subtract out some hourly loads
18 from wholesale customers that are in UE's control
19 area that are included in that net system input, but
20 that are not UE customers anymore.

21 Q. And is that when you were talking
22 before about one of the differences between your
23 March direct testimony, March 2002 direct testimony
24 and your July 2001 direct testimony is you had some
25 additional ones in your latter, most recent

1 testimony?

2 A. Not for AmerenUE. I had additional
3 ones when I normalized Ameren's --

4 Q. Okay.

5 A. (continued) -- total system. And when
6 I removed those loads, I also removed losses
7 associated with those customers.

8 Q. Okay.

9 A. And then I have a net system input that
10 UE is required to meet at that point. I calculate a
11 weather response function and I base usage across the
12 year using average daily usage and daily peak loads
13 and that's least squares regression model developed
14 by the staff around 1990.

15 Then I input the normal weather
16 variables and the result is daily weather normalized
17 average usage and daily weather normalized peaks and
18 I allocate those back to the hours of the day using
19 the actual load shapes that occurred on each.

20 Q. Okay. And then at that point, would
21 you have -- would it be fair to say you have a
22 weather normalized hourly system inputs?

23 A. I have a weather normalized net system
24 input, but it's not normalized for the other
25 adjustments the staff makes.

1 Q. Okay. And what other adjustments do
2 you make?

3 A. We make adjustments for growth,
4 customer growth.

5 Q. Okay.

6 A. There was an anglization on a couple of
7 large customers that's also included.

8 Q. And who makes all these additional
9 adjustments? Do you do that or do other staff
10 witness?

11 A. Other staff witnesses.

12 Q. Okay.

13 A. And in this case, we also included
14 kilowatt hours from territorial is another adjustment
15 that we made.

16 Q. Okay. I'd like you to take a look at
17 -- I don't think I need to mark this as an exhibit,
18 but this is Schedule 2 from Ms. Pyatt's direct
19 testimony. Is that -- does that Schedule show the
20 adjustments that you're talking about?

21 A. It shows all of the adjustments, except
22 for the territorial agreement, and I did also do a
23 weather normalization adjustment for the Illinois
24 territory and Missouri wholesale customers in my
25 March filing.

1 Q. Okay. Where is the -- where in the
2 staff testimony is the adjustment for the territorial
3 agreements?

4 A. It's in my work papers. It's not in my
5 testimony.

6 Q. Are you sponsoring that adjustment?

7 A. No, I am not.

8 Q. Who is?

9 A. Staff witness, Doyle Gibbs.

10 Q. Well, how come that adjustment isn't
11 shown on Ms. Pyatt's Schedule 2?

12 A. I don't know.

13 Q. Fair enough. Okay. And then correct
14 me if I'm wrong, but I think the last step in your
15 process is this reconciliation between the hourly --
16 or the weather adjusted hourly system inputs and the
17 weather normalized sales that you provided Ms. Pyatt
18 at the beginning; is that correct?

19 A. It's not just weather normalized sales,
20 but it's reconciled to the test year adjusted
21 kilowatt hours.

22 Q. With all those --

23 A. With all those adjustments.

24 Q. Like the ones we just talked about.

25 Well, the ones we just talked about. Okay. Now, how

1 do you do that? How do you reconcile those two
2 things?

3 A. I take the usage, the sales usage for
4 the test year and what is in Janice Pyatt's Schedule
5 is Missouri only and to the --

6 Q. Which Schedule are you talking about?

7 A. Schedule 2 that you just showed me.

8 Q. Okay.

9 A. To that, I add Illinois total usage
10 that has -- also has a weather adjustment that was
11 supplied to me by Ameren's Services and the DR where
12 I received the Missouri adjustments. I add in
13 Missouri wholesale normalized usage again with the
14 numbers, the weather adjustment coming from Ameren
15 Services.

16 I added the territorial agreement
17 adjustment calculated by Mr. Gibbs and to that I
18 added company usage. I summed those to get a
19 representation of the sales that UE was required to
20 meet in the test year, and to that I calculated
21 losses and added that to that sum so that resulted in
22 net system input normalized for the test year. That
23 number was slightly different than my weather
24 normalized net system input.

25 Q. How much different, about?

1 A. It was about one percent.

2 Q. Okay.

3 A. The sum of all those usages was one
4 percent less than my net system input weather
5 normalized, so I divided by the net system input that
6 was calculated by summing the usages and the losses.
7 I divided that number by the sum of the hourly net
8 system input weather normalized, to come up with a
9 ratio that was .990 and I applied that -- applied
10 that -- multiplied each hour in the test year by that
11 ratio.

12 Therefore, the sum of the hourly
13 normalized net system input is equal to the net
14 system input calculated by summing up all the sales
15 data and added losses.

16 Q. And multiplying it at the end by that
17 ratio?

18 A. Right.

19 Q. Okay. Okay. In response to one of the
20 data requests, I think you indicated that the staff's
21 ranking method is not used to weather normalize sales
22 or revenues for utilities other than electric
23 utilities. Is that true?

24 A. That's true, because we do not have
25 daily data for any other type of utility.

1 Q. Okay. And I guess other utilities that
2 you do weather normalization for would be, for
3 example, gas utilities. That's -- isn't that an
4 example of the utilities that you have to weather
5 normalize sales for?

6 A. Yes.

7 Q. Okay. And is that also true for water
8 companies? Is there a weather normalization done for
9 water companies?

10 A. We currently weather normalize one of
11 the water companies here in the State of Missouri,
12 the largest.

13 Q. Missouri American; is that right?

14 A. I'm not sure what the name is.

15 Q. Okay. Well, let's talk about gas
16 utilities for a minute. What methodology does the
17 staff use to weather normalize sales for gas
18 utilities in the state?

19 A. What I'm looking at is a response to
20 that data request where you asked me that TMB28 that
21 was answered by Dan.

22 Q. Okay.

23 A. He states in the response to that DR
24 that simple 30 year averages of daily weather have
25 been used. For example, the normal value for January

1 1st is the average of 30 historical values for
2 January 1st.

3 Q. Okay. And is that the NOAA
4 methodology?

5 A. No, it is not.

6 Q. What's the difference between that and
7 the NOAA methodology?

8 A. NOAA calculates a normal by month on a
9 monthly basis and then allocates that back to the
10 days based on spline function.

11 Q. Okay.

12 A. This is just a simple average over
13 January 1st for each day of the 30 years.

14 Q. Okay. And do you think that weather
15 normalization methodology is more appropriate for gas
16 utilities than the ranking method that you used for
17 electric utilities?

18 A. Yes.

19 Q. Why would that be?

20 A. For gas utilities, there is no daily
21 weather -- I'm sorry, daily sales on which to try to
22 estimate a weather response function. What they're
23 trying to weather normalize is billing month's sales
24 and there is no reason to come up with a hourly loads
25 for year for the gas --

1 Q. Okay.

2 A. (continued) -- in cases, therefore,
3 there's no need for ranked normals to weather
4 normalize sales for gas companies. Dan Beck does
5 each use for estimates of peak day usage.

6 Q. Would it be fair to say that because
7 you're only -- and maybe this is just what you said,
8 but bare with me and see if I understand it. Would
9 it be fair to say that because all you have to look
10 at for gas utilities is weather normalizing test year
11 sales and revenues for a rate case, that's what makes
12 the methodology used for gas companies better than
13 the ranking method?

14 A. I don't know that I would say better,
15 but it is appropriate for gas utilities to use this.

16 Q. Okay. I mean, and not to put words in
17 your mouth, but isn't it -- didn't you say it's more
18 appropriate than the ranking method would be for gas
19 utilities?

20 A. I don't know that I said that. I could
21 very well have, but --

22 Q. Whatever. The record will reflect what
23 you said, hopefully. Okay. And I guess an answer to
24 another data request I asked you about, and I don't
25 have it in front of me, but perhaps you'll remember

1 it. I asked you about what electric cases your
2 ranking methodology and the weather normalization
3 resulting from using the ranking methodology to
4 establish normal temperatures, you know, what cases
5 the staff had proposed that in and in what cases the
6 Commission approved that methodology. Do you recall
7 that data request?

8 A. I recall that data request.

9 Q. And my understanding from your response
10 was that there was really only one electric case
11 where the Commission decided to use the staff's
12 methodology. Is that true?

13 A. There's only one case where that was
14 taken to hearing.

15 Q. Okay.

16 A. And in that case, the Commission
17 adopted the staff's method for that case.

18 Q. Okay. And all the other cases that you
19 listed in that response were settled, right, or at
20 least that issue was settled?

21 A. That issue was settled, yes.

22 Q. Okay. So the Commission didn't have to
23 make a decision in any of those other cases?

24 A. No.

25 Q. And just for the record, I believe the

1 case that you cited in your data request response was
2 case number ER-97-394; is that right?

3 A. That's what I have, yes.

4 Q. Okay. And do you know what company
5 that was?

6 A. That was Missouri Public Service.

7 Q. Okay. Let me ask you this. Does the
8 weather normalization methodology the staff uses for
9 gas companies that we talked about before, does that
10 minimize the amount of the adjustment?

11 A. I do not do weather normalization in
12 gas, for gas companies.

13 Q. Okay. So you don't know if it
14 minimizes the amount of the adjustment?

15 A. I don't believe that it does minimize
16 the adjustment on any given day. There's no reason
17 to minimize on any given day for gas.

18 Q. Okay. And the reason there's no reason
19 to minimize the adjustment is because, again, you're
20 just calculating weather normalized sales for the
21 whole year. You're not looking at hourly data like
22 you do in the electric side. Is that true?

23 A. That's true.

24 Q. Okay. Let me ask you this. After you
25 were finished with your analysis, what did you do, if

1 anything, to check your results for reasonableness?

2 A. I reviewed the table that I included in
3 my testimony as Schedules 3 and 4. I looked at the
4 size loads, magnitude loads. I compared the actual
5 monthly peaks with monthly peaks that were received
6 by Alan Bax of the Energy Department for his
7 calculations of allocation factors, so we compared
8 those.

9 I looked at the load factors,
10 calculated using the actual normal monthly usage and
11 monthly peaks. When necessary, I went back and
12 checked each of those peak days, or any other days
13 that looked different, and when necessary, I'd go
14 back to the individual adjustments for those days to
15 check and make sure that they were reasonable.

16 I also checked the weather normalized
17 monthly usage knowing that the summer months should
18 be greater than the other months. Looked at when the
19 monthly peaks occurred, and that the monthly peaks
20 should be in July or August. Those types of
21 reasonableness checks is what I did.

22 Q. Okay. And all that is sort of within
23 the confines of the -- of this case, of the data in
24 this case. Did you look outside of this case, say,
25 at other companies or at other jurisdictions to see

1 if the results that you were getting were reasonable
2 compared to, say, what other commissions are doing,
3 or what other companies are getting in the way of
4 weather adjustments?

5 A. The only check of that type that I can
6 even think that would be reasonable in this check,
7 would be weather -- the direction of the weather
8 adjustments on any given calendar month, but I have
9 not done a weather normalization for the same time
10 period for any other case for any other utilities, so
11 I didn't have anything to compare it to.

12 Q. Did you --

13 A. Again, I did compare that to Dennis' --

14 Q. Dennis Patterson?

15 A. (continued) -- Dennis Patterson's
16 calculations, his data base that has normal and
17 actual weather in it to make sure that the directions
18 were correct.

19 Q. Did you look at any other jurisdictions
20 to compare your methodology to methodology used to
21 weather normalize in other jurisdictions?

22 A. No, I did not.

23 Q. Did you consult any textbooks or
24 written documents to see if experts in the field
25 supported or didn't support your methodology?

1 A. I have discussed our methodology in the
2 past with consultants from a company called ICF and
3 determined it was a reasonable weather normalization
4 accurate as weather normalization can be. I also
5 discussed the results or the method with a company
6 that's RER that does similar type of analysis.

7 Q. Do you know what RER stands for?

8 A. No, I don't.

9 Q. Do you know what the other consultants'
10 initials stand for?

11 A. No, I don't.

12 Q. Do you know what the names of the
13 people were that you talked to at either of the
14 consultants?

15 A. Mark English would be the consultant
16 with ICF. I have at my desk what RER stands for and
17 --

18 Q. That's okay if you don't remember,
19 that's all right.

20 A. I don't remember what his name is.

21 Q. But back to my original question, was
22 have you looked for textbooks or literature written
23 by weather normalization professionals that might
24 either lend support or maybe suggest alternatives to
25 the methodology that the staff is using? Did you

1 even look for those things?

2 A. I've been doing weather normalization
3 now since 1990. I have never seen a book written on
4 weather normalization of hourly loads.

5 Q. Have you ever seen books or articles
6 concerning weather normalization of sales and
7 revenues?

8 A. No, I have not.

9 Q. You've never seen any article or
10 chapter of a book at all dealing with weather
11 normalization?

12 A. I'm thinking that Apre might have
13 published something back in the 80's, but --

14 Q. Let me ask you this. I understand you
15 haven't seen those, but did you look for those in the
16 course of preparing your recommendation in this case?

17 A. In preparation of this case, no.

18 Q. Okay. One document that you did
19 mention in response to data request that I guess
20 you're testimony is based on is the staff's own
21 document. Do you know what I'm talking about?

22 A. We actually have two documents. I
23 think one I've referenced and answer to DR that had
24 to do with the ranked normals and the other is just
25 the document that we created on the weather

1 normalization method itself.

2 Q. Okay. And did you refer to that
3 document in the course of preparing your testimony
4 for this case?

5 A. No.

6 Q. When is the last time you read it?

7 A. I read it in the past six months in
8 training a new employee in how to weather normalize.

9 Q. When was that document written, if you
10 know, or about when was it written if you don't know?

11 A. It was written in the early 1990's.

12 Q. Good enough. Has it been updated since
13 the early 1990's?

14 A. No.

15 Q. Could you take a look at Schedule 3 on
16 both your testimony filed in July of 2001 and your
17 testimony in March of this year? You got it?

18 A. I've got it.

19 Q. And the title of the Schedule is
20 AmerenUE Net System Load. Is that true in both
21 cases?

22 A. Yes.

23 Q. And it looks like there's data for
24 different periods like in the July of 2001 testimony,
25 the data runs from January 2000 to December 2000; is

1 that correct?

2 A. That's correct.

3 Q. And then on the March 2002 testimony,
4 the data on that Schedule runs from July of 2000 to
5 June of 2001; is that correct?

6 A. That's correct.

7 Q. Okay. So then there's an overlap of
8 the period from July of 2000 through December of
9 2000; is that correct?

10 A. Yes.

11 Q. Okay. Perhaps you know where I'm going
12 with this, but it strikes me that the data for those
13 overlapping months on those two schedules is not the
14 same. Is that correct?

15 A. That's correct.

16 Q. For example, if you looked in your July
17 2001 testimony, you have actual monthly usage in
18 megawatt hours for the months of July 2000 is
19 3,808,193; is that correct?

20 A. That's correct.

21 Q. But then on your March of 2002
22 testimony, the actual megawatt hour monthly usage for
23 the months of July 2000 is 3,780,752; is that
24 correct?

25 A. That's what it shows, yes.

1 Q. And not to go through it month by
2 month, but isn't it true that where you show actual
3 usage in both the monthly usage column and the
4 monthly peaks column, none of the actual data for
5 July, August, September, October, November or
6 December of 2000 is consistent between those
7 schedules? Is that true?

8 A. That's true.

9 Q. All right. I got to ask. Why?

10 A. That's what I've been waiting for. You
11 have to remember that for the July filing, I used
12 what had been represented to me as net system input.
13 It was not -- what is in this table is net system
14 input as I calculated the best I could, given the
15 hourly loads that I had used and the monthly station
16 use that I used.

17 That's what I understand is the reason
18 why I looked at that and say, yeah, those actuals
19 should be the same and -- but then remembering the
20 data that I had been given to use, the other
21 difference is in the July filing, when I took out the
22 wholesale customers, I used a loss factor 4.0 for the
23 March filing. I looked at work or data request
24 response provided to Alan Bax where the company had
25 used 3.57. So for the March filing, I used 3.57 as

1 the company did. So those two there is the
2 difference --

3 Q. Okay.

4 A. (continued) -- between the two.

5 Q. So, which one is the real actual, do
6 you think?

7 A. My March filing.

8 Q. Okay. So in the July filing, those
9 were wrong actuals, right?

10 A. They were close, but yes, they were
11 wrong.

12 Q. Okay. One -- just a terminology thing,
13 and perhaps it's my lack of familiarity with the
14 subject matter, but sometimes I've been calling the
15 staff's method for determining normal temperatures
16 the ranking method and sometimes I've been calling it
17 the rank and average method. Are those the same
18 thing?

19 A. We have not given it a title. I've
20 assumed when you've used those, that they are the
21 same thing.

22 Q. Okay. Good enough. Do you have a
23 preference of one over the other?

24 A. No.

25 Q. Okay.

1 (Thereupon, a recess was had.)

2 Q. (By Mr. Byrne) I was going to ask you a
3 question about Schedule 2 on your latest version of
4 your direct testimony, and the question is where did
5 you get all the numbers on that Schedule?

6 A. I believe that's my July --

7 Q. Sorry?

8 A. (continued) -- July testimony.

9 Q. You're right. I'm not talking about
10 the July, I'm talking about the March 2002, but the
11 question is the same. Where did the numbers come
12 from that appear on that Schedule?

13 A. They came off the response to data
14 request 2914.

15 Q. Okay. The company supplied those
16 numbers to you?

17 A. Well, actually, the sign was different
18 on the numbers they supplied to me, but they are the
19 same numbers.

20 Q. Okay. You didn't make any adjustments
21 to them or anything?

22 A. No, I did not change them, other than
23 to change the sign.

24 Q. Okay. Okay. Look on Schedule 3, if
25 you would for a moment, and for the month of June

1 2001 --

2 A. Yes.

3 Q. (continued) -- you are showing it looks
4 to me like a positive weather adjustment; is that
5 correct?

6 A. Yes.

7 Q. And that means what? Does it mean it
8 was hotter than normal or cooler than normal?

9 A. Since it is a summer month, a positive
10 adjustment would mean that it was cooler than normal
11 in the summer month.

12 Q. Okay. And -- but if -- let me ask it
13 this way. My understanding is for that month, I know
14 this isn't in front of you, but normal cooling degree
15 days for that month were 284 and actual cooling
16 degree days for that month were 306. Do you have any
17 way of knowing whether that's right as we sit here?

18 A. I have no idea whether that's right.

19 Q. Okay. Well, if that is right, isn't
20 your weather adjustment going in the wrong direction
21 for that month?

22 A. If that was completely weather
23 adjustment, I would say yes, but it's more than just
24 weather adjustment.

25 Q. Well --

1 A. That also includes growth and
2 territorial agreement adjustments.

3 Q. Yeah, but I'm just looking in the
4 column on that Schedule that's entitled weather
5 adjustment, and then that has a positive number of
6 43.15, doesn't it?

7 A. That column is titled wrong. It should
8 just say adjustments.

9 Q. Okay.

10 A. I'm sorry.

11 Q. Okay. And so those other factors, if
12 it was hotter than normal, those other adjustments
13 might explain why it was hotter than normal in June
14 of 2001, those other adjustments might explain why
15 there's a positive number in the weather adjustment
16 column.

17 A. If the difference between the actual
18 normal that you have there is correct, then yes, that
19 would lead to one believing this is wrong, because if
20 you remember, I said that the sum of all the usages
21 was -- with all the adjustments was a little bit less
22 than the normalized net system input, it was about 1
23 percent, and so that would have reduced those loads.
24 So I'm not for sure why that's positive, if what you
25 say is correct.

1 Q. So if what I say is correct, and let me
2 say it again to make sure I said it correctly. I
3 said normal cooling degree days for June of 2001 were
4 284 and actual cooling degree days were 306. If
5 that's true, are you saying there's something wrong
6 with Schedule 3's number for June?

7 A. No, I'm not saying there's anything
8 wrong. I'm saying it needs to be looked at. You are
9 basing yours off of a cooling degree day. Mine is
10 not based off of cooling degree days. The difference
11 between actual normal using my weather variables may
12 be different than that.

13 Q. And is the reason for that the cooling
14 degree days -- well, I hate to expose my ignorance,
15 but is the reason for that cooling degree days the
16 difference between the temperature at 65 degrees
17 whereas your methodology using something other than
18 just 65 degrees?

19 A. That's correct.

20 Q. Okay. Okay. How many staff employees
21 are dedicated to weather analysis?

22 A. At the time of this filing, one. Now
23 we've got two.

24 Q. Okay. And that's -- okay. Is the one
25 person -- was the one person you?

1 A. Yes.

2 Q. Okay. Mr. Patterson doesn't do weather
3 analysis?

4 A. He works on the weather database from
5 which we calculate normals.

6 Q. Okay. Let me ask the question a better
7 way then. How many employees are dedicated to
8 weather in all the many facets?

9 A. Dennis Patterson works on the database,
10 the weather database. I am -- at the time of this
11 filing, I was the only employee that did electric
12 weather normalization. We've since hired another
13 person and we're training him.

14 Q. What about weather for all the other
15 types of utilities?

16 A. For gas we have, I think, four
17 employees trained to do it, not all four do it on any
18 given gas case. For water cases, Dennis Patterson
19 weather normalizes that.

20 Q. Do you have any -- does the staff have
21 any consultants on retainer to work on weather
22 issues?

23 A. Currently, no.

24 Q. Have you in the past?

25 A. We've in the past hired consultants to

1 advise us on the history that which we should use to
2 calculate normal weather.

3 Q. And haven't they also occasionally
4 filed testimony in cases?

5 A. In the area of normal weather, I
6 believe we had a consultant file once in my history
7 here.

8 Q. Is that Dr. Hue?

9 A. That sounds correct.

10 Q. Okay. Let me ask you this. When TV
11 weathermen or weatherwomen talks about normal
12 temperature for a day, do you know how they typically
13 calculate normal weather for that day?

14 A. I believe they use the NOAA
15 normal, but I'm not for sure of that.

16 Q. Okay. Do you know if they use staff's
17 ranking methodology to determine normal?

18 A. Pretty sure they don't.

19 Q. I mean, would it be fair to say the
20 common usage of the term normal implies a NOAA
21 methodology or a methodology similar to NOAA rather
22 than the ranking methodology?

23 A. Weather normalization of daily loads is
24 not what normal weather is typically used for. The
25 weatherman is not concerned with weather normalizing

1 hourly loads. Therefore, any kind of normal would
2 work for him. Our normals that we developed were
3 developed specifically for weather normalizing daily
4 loads for electric cases.

5 Q. Would it be fair to say that the
6 weatherman isn't interested in minimizing the
7 difference between normal and actual?

8 A. That would be fair, yes.

9 Q. But the staff is.

10 A. It's very important in the production
11 cost model to have that minimized.

12 Q. Okay. But -- and even though it is
13 important in the production cost model, it's not
14 important in -- well, forget that question. Can
15 extreme temperatures for a month occur on a weekend?

16 A. Yes.

17 Q. But it's my understanding that under
18 the staff's ranking methodology, you don't assign --
19 well, there's limits on when you assign extreme
20 temperatures for a weekend. Is that true?

21 A. That's true. We do not allow the
22 extreme for a month to fall on a weekend.

23 Q. Just the most extreme, the very most
24 extreme?

25 A. I believe it is just the very most

1 extreme, yes.

2 Q. But then any other ones could fall on a
3 weekend?

4 A. Yes.

5 Q. And why is that?

6 A. It's to get the maximum peak for that
7 month to fall on a weekday. Usage is different on
8 weekdays than it is on weekends, and typically it's
9 higher on weekdays.

10 Q. Okay. So you're trying to get the most
11 extreme temperature to fall on a day when there would
12 be higher usage; is that right?

13 A. That's correct.

14 Q. Okay. Did you work on and I apologize.
15 You may have provided a list of your cases in your
16 testimony, but did you work on case numbers EO-96-14
17 and EM-96-149, do you recall? And I guess Dennis
18 Patterson and Dr. Hue worked on those cases. Did you
19 assist them in any of those, in any of their work on
20 those cases?

21 A. Are those the cases involving the
22 merger of UE and CIPS.

23 Q. Yeah, the permanent rate reduction
24 case. Does that help?

25 A. No, did I not work on those.

1 Q. Okay. You may have already answered
2 this question, but I'll ask it again. If the staff
3 didn't need to weather normalize hourly inputs for
4 electric cases, would you use the ranking method to
5 calculate normal temperatures for purposes of your
6 weather adjustment or would you use some other method
7 do you think?

8 A. It's likely that we would not have even
9 developed the ranking method if we had not needed
10 hourly loads.

11 Q. All right.

12 A. So given the absence of that, we would
13 use probably something similar to what we do in gas
14 cases.

15 Q. Okay. Yeah, I guess if it didn't
16 exist, you wouldn't use it.

17 A. Right.

18 Q. Can you tell me just briefly, and I
19 think we've got over this before, but just briefly,
20 how the hourly inputs are used in Mr. Bender's
21 production cost model, or if you know.

22 A. Mr. Bender runs the production cost
23 model to estimate the fuel and purchase power expense
24 for the test year. To do that accurately, he needs
25 hourly loads, chronological hourly loads that need to

1 be met by UE's generation and so the inputs from my
2 analysis are input and the model simulates how the
3 generation would have been dispatched or what power
4 would have been purchased to meet that load on an
5 hourly basis.

6 Q. Do you understand how it works?

7 A. At the most basic level, it's an
8 economic dispatch or purchase, whichever is cheapest.
9 Although, it's my understanding that there's other
10 costs that are looked at, other considerations, ramp
11 up time, whether or not a plant can shut down five
12 megawatts to follow loads. There's other
13 considerations other than just economics.

14 Q. Okay. And I guess, well, Mr. Bender
15 would probably be the right person to talk to about
16 those rather than you, is that fair to say?

17 A. He has more knowledge about the model
18 and how it works than I do, yes.

19 Q. Okay. Let me ask you this. Is it true
20 that average loads respond differently to weather
21 rather than peak loads?

22 A. That is true.

23 Q. And which kind of load average or peak
24 responds more dramatically to changes in weather, if
25 you know?

1 A. I couldn't tell you that. They respond
2 differently. I'm not for sure what dramatically
3 means.

4 Q. Okay. Let me try to ask the question
5 better. If, in a given hour of the day, you had an
6 extreme temperature, let's say a 105 degrees. Would
7 a peak load increase more substantially on a
8 percentage basis than the average load, if you know?

9 A. At a peak hour, at a maximum where most
10 of the air conditioners are running, the peak and the
11 average will be close to the same because the air
12 conditioners are running the full time of that hour
13 to cool the buildings, and the peak is the maximum
14 demand, which is the amount that air conditioners
15 would use.

16 Q. Well, the same question with an
17 intermediate temperature like 85 degrees.

18 A. Again, I'm hung up on the word dramatic
19 or response. There is -- I can tell you that the
20 shape of average daily loads, if you plotted it
21 against weather, is different than the shape of
22 peaks. Daily peaks are more likely to saturate,
23 flatten out, level out at the high temperatures than
24 the average loads. Now, what it is at any given
25 temperature range, I can't make an estimation.

1 Q. Okay. In one of your work papers,
2 there was a term that you referred to and the term
3 was new historical temperature adjustment. Do you
4 know what that term means? If you recall it, and I
5 don't have your work paper in front of me.

6 A. I believe the work paper that you're
7 referring to is a spreadsheet called UE-Helms Staff
8 dot XLS, and the sheets that have that title on it
9 were provided to me by Ameren Services. When I asked
10 them what that meant, they said that was using the
11 historical weather that staff had agreed -- staff and
12 Ameren had agreed to in the previous case.

13 Q. Okay. And you mean the historical
14 period of time?

15 A. The historical period of time and the
16 levels of those temperatures.

17 Q. Okay. And is that like a 30-year
18 period?

19 A. Yes, it is a 30-year period.

20 Q. Okay. But it's Ameren who came up with
21 the term not you; is that right?

22 A. That's correct.

23 Q. Okay. Okay. My understanding is you
24 did give -- you've already said you gave your hourly
25 inputs to Mr. Bender for use in his production cost

1 model, right?

2 A. That's correct.

3 Q. Did you give those -- that information
4 to any other staff witness for their use in this
5 case?

6 A. I did not give it to anyone else for
7 use in this case.

8 Q. Okay. Do you know if anybody else is
9 using it for anything in this case?

10 A. I don't believe they are.

11 Q. Okay.

12 A. Other than Mr. Kovach asked me to do
13 some analysis in the past week.

14 Q. Okay. I have just some general
15 questions that don't deal specifically with your
16 testimony that I'd like to ask you, so just to -- and
17 first of all, there's some general statements about
18 rate making that I'd like to ask you if you agree
19 with them or disagree with them --

20 A. Okay.

21 Q. (continued) -- or maybe you have no
22 opinion on them. The first statement is this. The
23 purpose of a test year is to create or construct a
24 reasonably expected level of earnings, expenses, and
25 investment during the future period during which the

1 rates will be in effect.

2 All of the aspects of the test year
3 operations may be adjusted upward or downward
4 (normalized) to exclude unusual items to arrive at a
5 proper allowable level of all the elements of the
6 company's operations. Do you agree with that
7 statement? I'll show it to you.

8 A. Thank you. I don't agree with that.

9 Q. And why not?

10 A. Well, because it states expenses and
11 investments during the future period. It deals with
12 the historical year itself. It's looking at that
13 historical year.

14 Q. Okay. It's not, in your mind, the
15 function of test period is not to provide a proxy for
16 what's going to happen in the future. It's -- is
17 that the problem you're having with that statement?

18 A. It's the real data that we have and
19 given that the best data to predict future is the
20 history in that manner, yes, I do agree, but what we
21 do is look at the historical data because that's
22 what's available instead of using projected or even
23 saying this is what the future is going to look like.
24 We try to normalize that year in order to, you know,
25 to exclude unusual or unreasonable items or to put

1 them in or put items in that we believe need to be
2 there to try to get a best representation.

3 Q. But that's not necessarily what you
4 would reasonably expect to occur in a future period.
5 That could be something different.

6 A. Oh, the future will be different.

7 Q. Okay. I have a second statement to see
8 if you agree or disagree with it. Revenue
9 requirement is net operating income multiplied by the
10 current tax multiplier.

11 A. This one here? No, this one right
12 here. I have no opinion on that.

13 Q. Okay. Fair enough. How about the
14 following: Revenues, expenses, and rate base are the
15 key components to the rate making process and each of
16 those components must be measured consistently in
17 time in relation to each other or the revenue
18 requirement result will be skewed either to the
19 utilities or the customers' detriment.

20 A. I agree with that.

21 Q. Okay. Last one is the test year forms
22 the basis for any adjustments necessary to remove
23 abnormalities that may have occurred during the
24 period and to appropriately reflect any ongoing
25 increase or decrease shown in the financial records

1 of the utility.

2 A. I don't agree with that.

3 Q. Why not?

4 A. The test year -- the part that I don't
5 agree with is the test year forms the basis for any
6 adjustments. Adjustments can be calculated using
7 data outside the test years.

8 Q. Okay. I guess either before or after
9 the test year?

10 A. Well, if it's after the test year, it
11 needs to be in the update period that the
12 Commission's determined.

13 Q. Okay. What -- what, in your opinion,
14 is a non-recurring expense?

15 A. If an ice storm came through and
16 knocked out a lot of poles, caused a lot of expenses,
17 that would be non-recurring, power plant blowing up,
18 hopefully that's not recurring. It doesn't happen
19 very often.

20 Q. So that's the definition is that it
21 doesn't happen very often?

22 A. That would be my definition.

23 Q. Okay. Because like an ice storm, it
24 might be -- it certainly could recur, but your point
25 is it's infrequently; is that right?

1 A. Yes.

2 Q. Okay. And what do you think is the
3 proper rate making treatment for such an item?

4 A. That's not for me to determine.

5 Q. Well, okay. I understand it's not for
6 you to determine, but do you have an opinion as to
7 what the proper rate making treatment, and I guess
8 the choices would be eliminate the cost from recovery
9 or amortize it over some period. Do you have an
10 opinion as to which would be the better way to treat
11 a cost like that?

12 A. No, I do not have an opinion.

13 Q. How about an unusual or extraordinary
14 expense, do you have an opinion as to what an unusual
15 or extraordinary expense is?

16 A. No.

17 Q. Do you have an opinion as to whether --
18 as to how unreasonable or extraordinary expenses
19 should be treated if they appear in a test year?

20 A. No, I do not.

21 Q. Okay. How about abnormal expense. Do
22 you have an opinion as to what an abnormal expense
23 is?

24 A. No, I do not.

25 Q. And I assume you don't have an opinion

1 as to what the proper rate making treatment is that
2 normal expenses that occur in a test year is.

3 A. No, I do not have an opinion.

4 Q. Okay. One more statement to ask you if
5 you agree or disagree with and that is the test year
6 is a starting point to set reasonable rates for the
7 prospective period when rates are in effect.

8 A. I would agree with that.

9 Q. Okay. I don't have any other
10 questions. Thank you.

11 (Wherein, the taking of the instant
12 deposition ceased.)

13 (By agreement between Counsel and with
14 the consent of the witness, the signature is
15 expressly reserved.)
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CERTIFICATE OF REPORTER

STATE OF MISSOURI)
) ss.

COUNTY OF GASCONADE)

I, Jennifer L. Leibach, a Court
Reporter with the firm of Associated Court Reporters,
Inc., do hereby certify that pursuant to notice,
there came before me,

LENA MANTLE,

At the Governor Office Building, in the City of
Jefferson, State of Missouri, on the 17th day of
April 2002, who was first duly sworn to testify to
the whole truth of her knowledge concerning the
matter in controversy aforesaid; that she was
examined and her examination was then and there
written in machine shorthand by me and afterwards
typed under my supervision, and is fully and
correctly set forth in the foregoing pages; and that
the witness and all counsel reserved the reading and
signing of this deposition in my presence.

I further certify that I am neither
attorney or counsel for, nor related to, nor employed
by, any of the parties to this action in which this
deposition is taken; and further, that I am not a
relative or employee of any attorney or counsel
employed by the parties hereto, or financially
interested in this action.

Given at my office in the City of
Jefferson, State of Missouri, this 17th day of April,
2002.

JENNIFER L. LEIBACH
Court Reporter

1 STATE OF MISSOURI)

)

2 COUNTY OF _____)

3 I, LENA MANTLE, do hereby certify:

4 That I have read the foregoing deposition;

5 That I have made such changes in form and/or
6 substance to the within deposition as might be
7 necessary to render the same true and correct;

8 That having made such changes thereon, I
9 hereby subscribe my name to the deposition.

10 I declare under penalty of perjury that the
11 foregoing is true and correct.

12

Executed the _____ day of _____,

13

20__, at _____.

14

15 _____
LENA MANTLE

16

17 My Commission Expires: _____

18 Notary Public: _____

19 JL/Lena Mantle

Staff of the PSC vs Union Electric d/b/a AmerenUE

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1 Errata Sheet

2 Witness: Lena Mantle

In Re: Staff of the PSC vs Union Electric d/b/a

3 AmerenUE

4 Upon reading the deposition and before subscribing
thereto, the deponent indicated the following changes
5 should be made:

6 Page Line Should read:
Reason assigned for change:

7

Page Line Should read:
8 Reason assigned for change:

9 Page Line Should read:
Reason assigned for change:

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Page Line Should read:
11 Reason assigned for change:

12 Page Line Should read:
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17 Reason assigned for change:

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Reason assigned for change:

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Page Line Should read:
20 Reason assigned for change:

21

Reporter: Jennifer L. Leibach

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1 ASSOCIATED COURT REPORTERS, INC.
2 714 West High Street
3 Jefferson City, Missouri 65109
4 (573) 636-7551
5

April 17, 2002

6 Dennis L. Frey
7 PUBLIC SERVICE COMMISSION
8 P.O. Box 899

9 Jefferson City, Missouri 65102

10 RE: STAFF OF THE PSC VS UNION ELECTRIC d/b/a AMERENUE

11 Dear Mr. Frey:

12 Please find enclosed a copy of LENA MANTLE'S
13 deposition taken on April 17, 2002, in the above-
14 referenced case. Also enclosed is the original
15 signature page and errata sheet.

16 Please have her read the transcript, indicate
17 any changes and/or corrections desired on the errata
18 sheet, and sign the signature page before a Notary
19 Public.

20 Please see that the errata sheet and notarized
21 signature are forwarded to Mr. Byrne for filing
22 prior to the trial date.

23 Thank you for your attention in this matter.

24 Sincerely,

25 Jennifer L. Leibach, Court Reporter

Enclosure

cc: Mr. Byrne

Mr. Zucker

COURT MEMO
IN THE CIRCUIT COURT OF COLE COUNTY
STATE OF MISSOURI

STAFF OF PSC

vs.

UNION ELECTRIC

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Case No. EC-2002-01

CERTIFICATE OF OFFICER AND
STATEMENT OF DEPOSITION CHARGES

(See Rule 57.03 (g) (2) (a) and Section 492.590 RSMo 1985.)

DEPOSITION OF LENA MANTLE

TAKEN ON BEHALF OF THE RESPONDENT, APRIL 17, 2002

Name and address of the person or firm with custody
of the original transcript: Mr. Thomas Byrne, One
Ameren Plaza, 1901 Chouteau Avenue, St. Louis,
Missouri, 63166

() For Signature: (PUBLIC SERVICE COMMISSION)

TAXED IN FAVOR OF PUBLIC SERVICE COMMISSION:

TOTAL

\$ _____

TAXED IN FAVOR OF AMERENUE:

TOTAL

\$ _____

Upon delivery of transcript, the above charges
had not yet been paid. It is required that all
charges will be paid in the normal course of
business.

ASSOCIATED COURT REPORTERS, INC.
714 West High Street
Jefferson City, Missouri 65109

IN WITNESS WHEREOF, I have hereunto set my hand
and seal this 17th day of April, 2002.

Notary Public







BEFORE THE PUBLIC SERVICE COMMISSION
STATE OF MISSOURI

STAFF OF THE MISSOURI PUBLIC
SERVICE COMMISSION,

Complainant,

VS.

UNION ELECTRIC COMPANY d/b/a
AMERENUE,

Respondent.

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Case No. EC-2002-1

November 20, 2001
Jefferson City, Mo

DEPOSITION OF LENA MANTLE

ORIGINAL

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BEFORE THE PUBLIC SERVICE COMMISSION
STATE OF MISSOURI

STAFF OF THE MISSOURI PUBLIC
SERVICE COMMISSION,

Complainant,

VS.

UNION ELECTRIC COMPANY d/b/a
AMERENUE,

Respondent.

Case No. EC-2002-1

November 20, 2001

Jefferson City, Mo

DEPOSITION OF LENA MANTLE,

a witness, sworn and examined on the 20th day of November,
2001, between the hours of 8:00 a.m. and 6:00 p.m. of that
day at the Governor Office Building, Room 210, in the City
of Jefferson, County of Cole, State of Missouri, before

PATRICIA A. STEWART, RPR, CSR, CCR
Registered Merit Reporter
ASSOCIATED COURT REPORTERS
714 West High Street
P.O. Box 1308
Jefferson City, Missouri 65102
(573) 636-7551

within and for the State of Missouri, in the
above-entitled cause, on the part of the Respondent, taken
pursuant to notice.

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APPEARANCES

FOR THE COMPLAINANT:

DENNIS L. FREY, Associate General Counsel
PUBLIC SERVICE COMMISSION
P. O. Box 899
Jefferson City, Missouri 65102
(573) 751-3234

FOR THE RESPONDENT:

THOMAS M. BYRNE
Associate General Counsel
Legal Department
One Ameren Plaza
1901 Chouteau Avenue
P. O. Box 66149, MC 1310
St. Louis, Missouri 63166-6149
(314) 554-2514

PRESENT: Tim Finnell
Richard A. Voytas

SIGNATURE INSTRUCTIONS:

Obtain signature; waive presentment.

EXHIBIT INSTRUCTIONS:

None marked.

I N D E X

Direct Examination by Mr. Byrne 3

1 LENA MANTLE, having been sworn, testified as follows:

2 MR. BYRNE: Good morning. My name is Tom
3 Byrne. I'm an attorney for Union Electric Company, doing
4 business as AmerenUE.

5 And today we are here to take the deposition of
6 Lena Mantle of the Missouri Public Service Commission
7 Staff in Missouri Public Service Commission Case
8 No. EC-2002-1.

9 Present in the room in addition to myself and
10 Ms. Mantle and the court reporter are Steve Dottheim and
11 Dennie Frey from the Commission Staff, Office of the
12 General Counsel, and Tim Finnell and Rick Voytas from
13 AmerenUE.

14 DIRECT EXAMINATION BY MR. BYRNE:

15 Q. Could you please state your name?

16 A. Lena M. Mantle.

17 Q. Before we get started, I would like to ask you
18 a couple of preliminary questions.

19 Have you ever been deposed before?

20 A. Yes, I have.

21 Q. How many times?

22 A. Just once.

23 Q. Just once.

24 Do you remember what case that was in?

25 A. It was in a St. Joseph Power & Light complaint

1 case. And I don't know the case number.

2 Q. Any idea of about when it was?

3 A. 1992.

4 Q. Okay. Well, maybe some of this is old stuff
5 for you, but just to start off, if you don't hear a
6 question that I ask, please ask me to repeat it.

7 Can you do that?

8 A. Yes.

9 Q. And if you don't understand a question, again,
10 don't hesitate to ask for a clarification, so that you
11 know for sure what I'm asking.

12 Is that okay?

13 A. Yes.

14 Q. And if you need to take a break or anything,
15 let me know. We'll do that.

16 A. Okay.

17 Q. We can take breaks.

18 Are you taking any medication that might affect
19 your ability to answer the questions that I'm asking
20 today?

21 A. No, I am not.

22 Q. Is there any other reason that you know that
23 you might not be able to understand or answer the
24 questions I'm asking?

25 A. No. No, there is not.

1 Q. Okay. And I guess, last of all, I'd like to
2 define some terms that might get used in the course of the
3 deposition.

4 I guess if I say UE or AmerenUE, I'll be
5 referring to Union Electric Company.

6 Is that okay with you?

7 A. Yes.

8 Q. And you know if I say Ameren, I'll be referring
9 to the parent corporation, Ameren Corporation.

10 Is that all right?

11 A. Okay.

12 Q. And CIPS or AmerenCIPS would mean Central
13 Illinois Public Service Company. Is that okay?

14 A. Yes.

15 Q. And the last one I think that I might refer to
16 is NOAA, which I think it's the National -- well, what is
17 NOAA? I'll let you answer it.

18 A. National Oceanic and . . .

19 Q. I think I know what it is.

20 Is it the National Oceanic and Atmospheric
21 Administration, or is it Association?

22 A. Association.

23 MR. BYRNE: Okay. So, anyway, for the court
24 reporter's purposes, that is N-O-A-A.

25 BY MR. BYRNE:

1 Q. Okay. Ms. Mantle, in what capacity are you
2 employed at the Commission, at the Missouri Public Service
3 Commission?

4 A. I'm currently the Engineering Supervisor in the
5 Energy Department at the Commission.

6 Q. Okay. And are you the same Lena Mantle that
7 filed direct testimony in Case No. EC-2002-1 on the
8 subject of normalized sales and net system input,
9 consisting of eight pages and five schedules?

10 A. Yes, I am.

11 Q. And do you have a copy of the direct testimony
12 that you filed in that case with you?

13 A. Yes, I do.

14 Q. Do you know of anything at this point that
15 needs to be changed or corrected in that testimony?

16 A. On page 6, line 16, it begins with Ameren's
17 hourly load. ADM's, "apostrophe s", load. It should just
18 be ADM.

19 Q. So take out the "apostrophe s"?

20 A. Yes.

21 Q. Okay.

22 A. That would be it.

23 Q. Okay. According to your testimony, you've been
24 employed with the Commission since 1983, right after you
25 graduated from college.

1 Is that right?

2 A. That is correct.

3 Q. Did you hold any jobs related to the issues
4 that you're testifying to in Case No. EC-2002-1 prior to
5 your employment with the Commission?

6 A. No, I did not.

7 Q. Okay. Could you briefly run through, to the
8 extent you can recall, the positions that you've held
9 since you started with the Commission in 1983?

10 A. I started with the Commission as an Economist
11 in the Research and Planning Department. I think by
12 December of the next year I became an Engineer for the
13 Commission. I've served under various engineering titles
14 since my promotion to Engineering Supervisor in August of
15 this year.

16 Q. Okay. So in August of this year you were
17 promoted to Engineering Supervisor.

18 Is that right?

19 A. That is correct.

20 Q. And when you changed from an Economist to
21 Engineering, did you stay in the Research and Planning
22 Department?

23 A. Yes, I did.

24 Q. Okay. And was Mike Proctor in charge of that
25 department?

1 A. He did hire me, and I believe at the time I
2 became an Engineer he was still the manager of that
3 department.

4 Q. Okay. And are you still in that department, or
5 does that department still exist?

6 A. That department no longer exists.

7 Q. Did you work there in that department until it
8 ceased existing?

9 A. The name was changed to Economic Analysis
10 Department, but it was essentially the same department
11 until about three years ago when that department was split
12 into Electric and Gas Departments. And then this summer
13 the groups were then merged back into the Energy
14 Department.

15 Q. And when they were split, did you go to the
16 electric side?

17 A. Yes, I did.

18 Q. And was it, like, Electric Research -- I guess,
19 what was the name when they split it to electric?

20 If you don't remember, that's fine.

21 A. I don't remember.

22 Q. Okay.

23 And what kind of work have you performed in
24 each of those positions, if you could briefly tell me?

25 A. In my career here at the Commission, I've

1 worked briefly with production costing models. I've
2 worked very briefly with cost-of-service analysis when I
3 first came. I spent time learning load research and
4 working with load research data.

5 One of my primary responsibilities since the
6 early '90s has been with the normalization of electric
7 sales, class hourly loads, net system input.

8 I've also been involved with revision of
9 several Commission rules, the writing of Chapter 22, which
10 is the resource planning rule, reviewed demand-side
11 programs and resource plan filings.

12 And I've also in the past two or three years
13 been very involved with the electronic filing system
14 development here in the Commission.

15 Q. The new program that they're having of where
16 everything is going to be electronically filed?

17 A. Yes.

18 Q. Let me ask you this: Before you got into
19 weather, which I guess is in the early '90s --

20 A. The late '80s, early '90s.

21 Q. -- late '80s, early '90s, what did you do in
22 the period from when you were hired until you started
23 doing the weather?

24 A. Good question.

25 I worked with load research data, the

1 development and how that would work. That would also be
2 the time I worked some with production cost models. And
3 that's what I remember.

4 Q. Okay. Can you explain to me where your current
5 position fits in the organizational structure of the
6 Commission?

7 I guess the simplest way for me to ask it might
8 be, who is your supervisor?

9 A. My supervisor is Warren Wood, the Manager of
10 the Energy Department.

11 Q. Okay. And then does he -- well, would he
12 report to Wes Henderson then?

13 A. Yes, he does.

14 Q. And then Wes Henderson reports -- well, who
15 does Wes Henderson report to?

16 A. To the best of my knowledge, he reports to
17 Bob Quinn, the Executive Director.

18 Q. Okay. And then Bob Quinn reports directly to
19 the Commission?

20 A. That's my understanding.

21 Q. Okay. Is there any relationship between your
22 function and the Staff accounting function?

23 A. The accounting staff includes typically my
24 adjustment to weather normalized sales when they calculate
25 the growth adjustment to sales in a rate case or a

1 complaint case, any kind of case where revenues needs to
2 be determined.

3 Q. Okay. So they use the output of your analyses
4 in developing rates.

5 Is that fair?

6 A. Yes. In that capacity we work together.

7 Q. Okay. But there is no reporting relationship
8 between you and the Accounting Department.

9 Is that fair to say?

10 A. That's correct.

11 Q. You're on sort of parallel tracks if I tracked
12 it up through the organization?

13 A. Yes.

14 Q. Okay. I guess I would like to start out by
15 asking you some general questions about your understanding
16 of some of the purposes of regulation of public utilities
17 such as AmerenUE.

18 My first question along those lines is: Would
19 you agree with me that one of the key principles of public
20 utility regulation is that public utilities should have
21 the opportunity to earn a fair rate of return?

22 A. Yes.

23 Q. And would you further agree with me that the
24 opportunity to earn a fair rate of return is affected not
25 only by the explicit rate of return that is allowed by the

1 Commission but also by the costs that are allowed to be
2 reflected in rates?

3 A. Yes.

4 Q. And to put it another way: If a utility had
5 actual costs of, say, \$500 million but it was only
6 permitted to recover \$100 million in costs, wouldn't it be
7 very unlikely to be able to earn its authorized rate of
8 return, whatever that return was?

9 A. I don't know. There is a lot of factors that
10 need to be considered.

11 Q. Okay. Well, let me ask it this way: All other
12 things being equal, if the utility is not permitted to
13 recover its costs, it won't be able to earn its authorized
14 return.

15 Is that true?

16 A. I would assume in that circumstance that the
17 Commission has looked at all relevant factors and they
18 believe that they could.

19 Q. Okay. Well, let me ask it this way: Do you
20 think it's appropriate for the Commission to set rates
21 that excludes the cost of providing service in a
22 reasonable and efficient manner?

23 Do you think that's appropriate?

24 A. Again, I would assume that the Commission has
25 looked at all factors and has made that determination

1 based on what they've been given, the information they've
2 been given.

3 Q. Okay. But would you agree that it's not
4 appropriate for them to just arbitrarily exclude costs
5 that are necessary to provide service?

6 And I guess I'm not -- for purposes of these
7 questions, I'm not assuming that the Commission has
8 decided to do that. I'm asking you what it would be
9 appropriate for the Commission to do.

10 A. Say the question again.

11 MR. BYRNE: I'm not sure I can. Maybe the
12 court reporter could help me.

13 (THE COURT REPORTER READ BACK THE PENDING
14 QUESTION.)

15 THE WITNESS: I would have to agree that the
16 Commission should not arbitrarily -- that would not be
17 appropriate if it was arbitrarily.

18 BY MR. BYRNE:

19 Q. Okay. Let me ask the previous question again,
20 and, again, with the caveat that I'm not -- I'm not asking
21 you to assume that the Commission has already made this
22 decision. Instead, I'm asking you what you think the
23 Commission should do.

24 And my question was: If a utility had
25 \$500 million worth of costs that it incurred to provide

1 service in a reasonable and efficient manner, would you
2 agree that it wouldn't be appropriate for the Commission
3 to only allow them to recover \$100 million in costs
4 through its rates?

5 A. If asked to review that, I would not make a
6 recommendation that the Commission only include
7 \$100 million if I believed that \$500 million was the
8 appropriate number. I would not make that recommendation
9 to the Commission.

10 Q. And is the appropriate number the costs the
11 utility actually incurs to provide service, assuming that
12 they are acting in a reasonably efficient manner?

13 A. If I reviewed those numbers and I felt that
14 that was the appropriate costs, then that's what I would
15 recommend to the Commission.

16 Q. But is what I've given you, the definition of
17 an appropriate cost, the costs that a utility actually
18 incurs to provide service in a reasonably efficient
19 manner?

20 A. Again, if it's been reviewed and we audited and
21 we believe that those are the costs, yes, it would be
22 appropriate to include it.

23 Q. Okay. I guess looking at your direct
24 testimony, first, I have kind of a broad question, and the
25 broad question is: Can you explain to me exactly what you

1 are trying to measure or determine through your direct
2 testimony?

3 A. For normalization of sales, the objective is to
4 adjust for any abnormal weather during the test year or
5 the year that we are normalizing.

6 As far as the net input to sales, we want to be
7 sure and reconcile that input with the sales that are used
8 to generate revenues in the case.

9 That would include weather adjustment, growth
10 adjustment, any kind of large customer analyzation, and in
11 this case, some wholesale customers that Ameren also
12 serves.

13 Q. Okay. Let me ask it this way: Would it be
14 fair to say that for the test period that you're using,
15 which -- what is that test period?

16 A. The test year for the case is 12 months ending
17 June 2000.

18 Q. Okay. That's Staff proposed test year?

19 A. The Staff -- or the test year that I used --

20 Q. Okay.

21 A. -- in weather normalizing the sales.

22 Q. I mean, the only reason I say "Staff," is you
23 understand that there is an issue about what the test year
24 should be in this case?

25 Do you recognize that?

1 A. Yes, I understand that.

2 Q. Okay. So what you used was Staff's test year,
3 which was 12 months ending June of 2000. Right?

4 A. That's the sales normalization that I looked
5 at, yes.

6 Q. Okay. And then you attempted to weather
7 normalize the sales data for that period.

8 Is that correct?

9 A. No. What I did was review AmerenUE's weather
10 normalization of that time period, and I adopted their
11 weather normalization of sales.

12 Q. Okay. And is that the general idea, that those
13 weather normalized loads, I guess, may be adjusted for any
14 growth that might occur are a good proxy for what can be
15 expected in terms of loads in the future?

16 A. Do you mean loads or do you mean class sales?

17 Q. I think I mean class sales.

18 A. Okay.

19 No, it's not a projection into the future. It
20 is the actual sales that took place during the test year
21 that -- and then adjusted for abnormal weather and then
22 growth is added, I believe.

23 In this case we had a growth through December
24 of 2000.

25 So it's not a projection into the future. It's

1 of that time period.

2 Q. Okay. But to the extent that that calculation
3 is used to set rates for a future period, isn't the idea
4 that that information that you develop is a good -- is the
5 best proxy for the -- for what will happen in the future?

6 A. According to the statutes that the Legislature
7 has given us, yes, I believe that was probably assumed.

8 Q. Okay. And what statutes are you referring to?

9 A. I cannot quote a number.

10 Q. Okay. But what do you think those statutes
11 say?

12 A. That we're to use a historical period to set
13 rates.

14 Q. Okay. And, again -- and then maybe it's the
15 Legislature -- if it's in legislation, I guess, it's the
16 Legislature's conclusion, but the idea is, I guess, that
17 history is the best -- looking at history is the best way
18 to determine what will happen in the future.

19 Is that your understanding?

20 A. That would be my understanding.

21 Q. Okay. Could you explain how the information
22 that you developed in your direct testimony is being used
23 by other witnesses in the case?

24 A. The adjustment to sales was given to Staff
25 Witness Janice Pyatte, who then calculated an adjustment

1 to revenue for that weather adjustment.

2 I also sent the adjustment to sales to the
3 Accounting Department, who used that in their
4 determination of growth through December 2000.

5 That would be for weather normalization sales.
6 That's how that was used.

7 Q. And is there a witness from the Accounting
8 Department that used it for that purpose?

9 A. I don't remember who that is.

10 Q. Might it be Greg Meyer who did the growth
11 adjustment?

12 A. I don't believe.

13 Q. If --

14 A. I've had two other cases since then. So I
15 don't believe -- I'm pretty sure it wasn't Greg.

16 Q. Okay. Well, let's back up for a second.

17 Jan Pyatte, she uses your weather normalization
18 adjustment in calculating revenues.

19 Is that right?

20 A. Yes.

21 Q. Okay. So if I look at her testimony, hopefully
22 I'll be able to see how she's taken your numbers and used
23 them in her revenue calculation?

24 A. That should be in her testimony, yes.

25 Q. Okay. And in somebody else's testimony -- tell

1 me how your analysis is reflected in the growth adjustment
2 that is, I guess, in somebody else's testimony.

3 A. Because I do not do that growth adjustment, I'm
4 only generally familiar with what they do.

5 My general knowledge is that they take those
6 weather adjustments and apply them to the sales, and from
7 that weather adjusted sales they calculate growth.

8 Q. Okay. Somehow?

9 A. Somehow. But that's not my responsibility.

10 Q. Right. Okay.

11 Let me ask you about a third Staff witness,
12 Leon Bender. Are you familiar with his testimony?

13 A. Yes, I am.

14 Q. And, generally, what does his testimony cover?

15 A. His testimony covers the cost of fuel and
16 purchase power.

17 Q. Okay. And does Mr. Bender use your information
18 in his testimony?

19 A. He uses the weather adjusted hourly net system
20 input that I calculate.

21 To this point I've only been talking about
22 sales. But he uses the net system input.

23 Q. And if you could explain, what does he use it
24 for? How does that work exactly?

25 A. Again, I'm not intimately knowledgeable about

1 what exactly the model does. You would have to ask Leon
2 that.

3 But my understanding is these hourly loads are
4 input so that they can estimate the fuel costs for the
5 year.

6 Q. When you say his model, is that -- let me see
7 if I get this right -- a production costing model?

8 A. Yes, it is.

9 Q. Okay. And, generally, does that help the Staff
10 determine the costs -- well, the costs of various -- well,
11 what kind of costs does it help the Staff determine?

12 A. Again, you're getting into Leon's area --

13 Q. Okay.

14 A. -- and not mine, and mine is only a superficial
15 knowledge of that model.

16 But my understanding is it's fuel and purchase
17 power costs that it determines.

18 Q. You didn't work with Mr. Bender or get involved
19 in any of the details of what he filed?

20 A. I am now Mr. Bender's supervisor, and I have
21 discussed with him his testimony. And I did sit in on his
22 deposition yesterday.

23 Q. When did you become his supervisor?

24 A. In August of this year, after he filed
25 testimony in this case.

1 Q. Okay. So any involvement that you would have
2 had with him as a supervisor came after he already filed
3 this testimony.

4 Is that right?

5 A. As a supervisor, that is correct.

6 Q. And your involvement as another witness in this
7 case with him prior to becoming a supervisor and as he was
8 working on his testimony was pretty minimal.

9 Is that fair to say?

10 A. I am co-case coordinator of this case. I
11 reviewed his testimony prior to being filed. And in that
12 capacity I did have knowledge of what he did at a general
13 review of his testimony level.

14 Q. Okay. But not a detailed level?

15 A. Not a detailed level, no, sir.

16 Q. Is there any other Staff witness that uses the
17 information developed in your direct testimony for
18 anything in this case?

19 A. Not to my knowledge.

20 Q. Are you familiar with the overall Staff
21 proposal in this case for reducing Union Electric
22 Company's rates?

23 A. Yes, I am.

24 Q. Do you know the magnitude of the proposed rate
25 decrease?

1 A. Yes, I do.

2 Q. What is it?

3 A. I believe it runs from approximately
4 \$210 million to \$230 million rate reduction -- reduction
5 in revenues.

6 Q. Per year?

7 A. Per year, yes.

8 Q. Okay. And do you have any understanding about
9 how your weather adjustment fits into that overall
10 recommendation?

11 And I guess in terms of a dollar impact.

12 A. I know that the weather adjusted sales are used
13 to set the base revenues for the case, and also will be
14 used to allocate any rate reduction back to the class.

15 I currently do not remember exactly the dollar
16 amount of those sales, of that adjustment.

17 Q. Okay. But the information that you provided,
18 it seems to me, could have several types of dollar impacts
19 on the Staff's case.

20 Would that be fair to say?

21 A. That's fair to say, yes.

22 Q. I mean, for example, you could have a dollar
23 impact on Ms. Pyatte's calculations.

24 Is that correct?

25 A. Ms. Pyatte calculates the dollars from my

1 analysis.

2 Q. Okay. But you don't know -- I think you just
3 said you don't know what the dollar value of the weather
4 adjustment is on Ms. Pyatte's calculation?

5 A. That is correct.

6 Q. Okay.

7 A. If you go to her testimony, you should be able
8 to find that number.

9 Q. Okay. And I guess to the extent information
10 that you provide is being used to calculate the growth
11 adjustment, that, too, is a way that your testimony could
12 have an impact on the Staff's overall recommendation.

13 Is that true?

14 A. That is true.

15 Q. But do you know the dollar amount of that
16 impact?

17 A. No. I don't believe that is calculated in the
18 case.

19 Q. Okay. And then yet a third way that your
20 testimony could have a dollar impact on the Staff's case
21 is through Mr. Bender's use of that data in his production
22 cost model.

23 Is that true?

24 A. That is true.

25 Q. And, again, do you have an understanding of

1 what the dollar amount of that impact might be?

2 A. I don't remember what it is.

3 Q. Okay. Did you used to know what it was?

4 A. I don't know whether Mr. Bender gave me that
5 information or not. He would incorporate that with
6 several other things in the model. And to determine a
7 number with each one of those changes, I don't know that
8 he did.

9 Q. I mean, would it be fair to say it's unlikely
10 that he did?

11 A. I don't know.

12 Q. But you never asked him about it.

13 Is that true?

14 A. That's true.

15 Q. Okay. Let me ask you this: Have you
16 considered the impact of the Staff's overall rate proposal
17 on Ameren's operations at all if it was to be granted by
18 the Commission?

19 A. No, I have not.

20 Q. So you haven't considered whether it will have
21 an adverse impact on Ameren's ability to invest in
22 infrastructure?

23 A. No, I have not.

24 Q. Have you considered whether the Staff's overall
25 recommendation, if it was adopted, would adversely affect

1 Ameren's utility to pay a dividend to its shareholders?

2 A. No, I have not.

3 Q. Have you considered whether the Staff's
4 recommendation if granted would have an adverse impact on
5 Ameren's stock price?

6 A. No, I have not.

7 Q. Are you aware of a recent spate of utility
8 mergers throughout the United States?

9 A. Only very vaguely.

10 Q. Okay. Have you considered whether the Staff's
11 overall recommendation, if it were granted by the
12 Commission, would make Ameren a more likely target for
13 acquisition by an out-of-state purchaser?

14 A. No, I have not.

15 Q. Do you have an opinion as to whether it would
16 be a good policy decision on the part of the Commission to
17 take an action that would subject Ameren to a greater
18 likelihood of acquisition by an out-of-state purchaser?

19 A. Can you restate that question?

20 MR. BYRNE: Maybe the court reporter could read
21 it back. I don't think I can say it again.

22 (THE COURT REPORTER READ BACK THE PENDING
23 QUESTION.)

24 THE WITNESS: No, I do not have an opinion on
25 it.

1 BY MR. BYRNE:

2 Q. Are you familiar with Ameren's EARP plan that
3 has been in effect in the recent past?

4 A. Very generally at a high level.

5 Q. What is your general familiarity with it?

6 A. I'm aware of the basics as far as there is a
7 sharing grid and that at a certain point in that grid
8 customers can receive a credit on their bills. And I've
9 seen those credits on my bills.

10 I'm also aware that after the first three years
11 there was an adjustment made to rates based on whether
12 normalized sales and any excessive returns, I believe, at
13 that time that an adjustment was made.

14 Q. Do you know how long the program was in effect
15 overall?

16 A. Six years.

17 Q. And do you know when it ended?

18 A. June of 2000 -- June 30th of 2001.

19 Q. And is it your opinion that -- well, let me
20 start over.

21 You just said that after three years the
22 program was adjusted.

23 Is that correct?

24 A. I have a portion of the stipulation and
25 agreement that was filed on July 12th, 1996.

1 On page 5 it says, earnings monitoring in
2 Case No. EO-96-14 will result in a general change in rates
3 charged and revenues collected after August 31st, 1998,

4 The change in revenues collected will be equal
5 to the average annual total revenues credited to the
6 customers.

7 This is the adjustment that I was referring to.

8 Q. Okay. And is it your understanding -- I think
9 in the portion that you just read they talked about
10 monitoring reports.

11 Is it your understanding that Ameren regularly
12 filed monitoring reports during the period when that EARP
13 was in effect?

14 A. I assumed that is so. I have not seen those
15 reports.

16 Q. Okay. And is it your understanding that during
17 the period that the EARP was in effect, Ameren received
18 excess earnings, particularly given the adjustment that
19 was made during the course of the program?

20 A. There is many things that go into the
21 determination of excess earnings.

22 I do believe from the Staff report filed in
23 February of 2001, and then again in our filings made in
24 July 2nd of this year, that there is overearnings.

25 As far as the other six years within the EARP,