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3	STATE OF MISSOURI PUBLIC SERVICE COMMISSION
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	HEARING
6	July 14, 2000
7	Jefferson City, Missouri Volume 9
8	
9	In the Matter of the Joint )
10	Application of UtiliCorp United, ) Inc. and St. Joseph Light & Power )
11	Company for Authority to Merge )
12	St. Joseph Light & Power ) Case Company with and into UtiliCorp ) No. EM-2000-292
13	United, Inc, and, in Connection ) Therewith, Certain Other Related )
14	Transactions.
15	
16	
17	
18	
19	
	Exhibit No. 301
20	Date 9-15-00 Case No. 510-2000 - 369
21	Reporter
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JUDGE WOODRUFF: Then he's excused. MR. SWEARENGEN: I think that takes us up to, 3 then, transmission access. JUDGE WOODRUFF: Transmission access. ĸ And Mr. Kreul. MR. DUFFY: Your Honor, it's my understanding 7 that Mr. Kreul's testimony has already been marked and 8 perhaps already admitted. He's been on the stand before. 9 I'm not sure. JUDGE WOODRUFF: I'm sure it has been marked. 12 and 13. 12 is his direct and 13 is his 11 12 surrebuttal. 13 (OFF THE RECORD.) JUDGE WOODRUFF: We're back on the record then. 15 MR. DUFFY: Your Honor, the Company -- or 16 UtiliCorp, rather, has called to the stand Richard C. 17 Kreul. 18 It's my understanding he's been previously on 19 the stand and his testimony, his direct testimony, has 20 already been marked, his surrebuttal testimony has been 21 marked as an exhibit and has made corrections, and so I 22 believe I just tender the witness for gross-examination on 23 the transmission access and reliability issue. 24 JUDGE WOODRUFF: Do you want to offer 12 and 13 25 at this time?

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It is outside the range of acceptable operation 2 for that particular facility.

And the range is also sometimes referred to, 4 like, a line rating?

That's correct. λ.

So if a loadflow indicates that the power Q. 7 flowing over a line is greater than the line rating, this 8 would be a loading violation. Correct?

Not necessarily. Typically it's within a 10 range, a percentage range, I think our standard is plus or

11 minus 5 percent. So if it's within that range, it's

12 within the loading of the facility.

٥. I mean, are you saying that it would be, like,

14 105 percent of the lines emergency rating?

15 A. No, not the emergency rating. The -- the 16 actual -- the design of the facility. The facilities are

17 designed to carry so much load, and if it's -- if it's

18 within a 5 percent range -- 5 percent of that loading,

19 then we consider that within the range.

So if a line is carrying 5 percent more load Q.

21 than it is rated to carry, UtiliCorp does not consider 22 that to be a loading violation?

23 We consider that within the range of operation, λ.

24 yes, acceptable range of operation.

Are all of your lines rated then at 105? O.

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MR. DUFFY: Sure. JUDGE WOODRUFF: 12 and 13 have been offered 3 into evidence. Any objection? Mearing none, they will be received. (EXHIBIT NOS. 12 AND 13 WERE RECEIVED INTO 7 EVIDENCE.) JUDGE WOODRUFF: Mr. Kroul is tendered for 9 cross-examination. Does anyone have any questions for 10 Mr. Kreul on this issue? 11 You may proceed, the City of Springfield. MR. KEEVIL: Thank you, Judge. 13 CROSS-EXAMINATION BY MR. KEEVIL: Q. Good morning, Mr. Kreul. 14 15 A. Good morning. If I could direct your attention to page 18 16 17 (sic) of your surrebuttal, page 18, line 2 (sic) of your 19 You state that -- well, actually it begins on 20 line 17 of page 2, you state there that the results of the 21 loadflow analysis performed by UCU for the heavy transfer 22 case scenario (pre-contingency) showed zero loading 23 violations and only one voltage violation. Correct? 24 A. That's correct. 25 Now, a loading violation means what? ASSOCIATED COURT REPORTERS, INC. JEFFERSON CITY \* COLUMBIA \* ROLLA TOLL FREE - (888) 636-7551

No. They're -- every one of the facilities 2 are -- are designed at a certain -- at a certain load. Would you repeat your last answer, Mr. Kreul? Q. λ. All of our facilities are designed to carry a 5 certain amount of load. Right. But if you're 5 percent over whatever Ο. 7 that facility is designed to carry, that's fine as far as 8 UtiliCorp ~-A. We -- we consider that to be good practices. 10 You can operate within plus or minus 5 percent. 11 Q. What is the purpose of a rating then? It's the -- well, it sets the range, the A. 13 perimeter of the range. 14 Q. How long could you operate the line 5 percent 15 over emergency? MR. DUTFY: Could I ask to rephrase the 17 question? When he threw in that last term "emergency", 18 I'm not sure how that --JUDGE WOODRUFF: Yeah. What exactly are you 20 asking? You threw in the term "emergency." 21 BY MR. KEEVIL: 22 ٥. The emergency rating. 23 A. Oh, okay. 24 Typically emergency, we don't like to operate 25 more than two or three, maybe four hours at the most.

- 1. Q. Now, Mr. Kreul, let me ask you: Are you
  2 confusing voltage criteria with loading criteria here?
  3 A. I don't believe I am.
  4 Q. And what does UCU -- we mentioned emergency
  5 ratings. Would you describe your understanding of what
  6 referred to by the term "emergency ratings?
  7 A. Well, it's -- it's -- it would be at a higher
- 5 ratings. Would you describe your understanding of what is 6 referred to by the term "emergency rating"?

  7 A. Well, it's -- it's -- it would be at a higher 8 level of load on that particular facility, using different 9 calculations. It would be -- an emergency rating would be 10 probably under some contingency and certainly wouldn't be 11 under normal operating practices. But there is -- each 12 one of the facilities do have an emergency rating, and -- 13 and we considered it -- consider it acceptable to operate
- 14 at an emergency rating for a short period of time.

  15 Q. What is a short period of time? How do you

  16 define short period of time?
- 17 A. Like I said earlier, two, maybe three, four 18 hours at the most.
- 19 Q. Does the Southwest Power Pool have criteria for 20 setting emergency ratings?
- 21 A. To be honest with you, I'm not sure what their 22 criteria is if they do have one.
- Q. Do you know if Southwest Power Pool criteria
   24 allows you to exceed whatever -- assuming they have a
- 25 criteria, whatever that emergency criteria is?

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1 by -- or sent to us by Dennis Florom whom Mr. Kreul just 2 described.

3 (EXHIBIT NO. 304 WAS MARKED FOR

4 IDENTIFICATION.)

5 BY MR. KEEVIL:

- 6 Q. Now, Mr. Kreul, I've handed you what's been
- 7 marked as Exhibit 304. If you'd turn over to the third
- 8 page of that exhibit. Do you see where the 7502 Sibley,
- 9 underlined the Sibley to Duncan?
- 10 A. Yes, I see that.
- 11 Q. Okay. Do you see in the far right column 102?
- 12 A. I see that number, yes.
- 13 Q. What does that number represent, sir?
- 14 A. I'm not familiar with this sort of report, so
- 15 I'm -- I'm not sure.
- 16 Q. You're not familiar with this report?
- 17 A. No.
- 18 Q. But I believe indicated Mr. Plorom works for
- 19 you?
- 20 A. Yes, I have.
- 21 Q. Look up at the top left, I guess, if you're
- 22 holding the page this way, the General Electric PSLF
- 23 Version 11.0.
- 24 A. Yes, I see that.
- 25 Q. Now, are you familiar with that being

- 1 A. I don't know. So getting back to page 2, line 18 of your 3 surrebuttal, you refer there to the heavy transfer case 4 scenario precentingency. 5 Now, is this the same case that was provided to 6 Springfield in response to data requests? Which data request? λ. Oh, which one? That would have been, I believe, EDSPR-28, the 10 loadflow base cases. 11 I'm not familiar with that particular data λ. 12 request. 13 Who is Dennis Florom? ο. 14 **A**. He's a planning engineer in our group, 15 Does he work for you? 16 A. Yes. He works in the group that I supervise. 17 Q. Okay. 18 MR. KEEVIL: Judge, I spologize. I didn't 19 expect to have to introduce this, so I haven't written 20 down the little markings yet. This would be 304 actually, 21 I believe. I have premarked up through 303. JUDGE WOODRUFF: We'll make it 304. And what 22 23 is it? 24 MR. KREVIL: This is the UtiliCorp -- a portion 25 of the UtiliCorp response to that data request prepared
- 1 UtiliCorp's model? No, I'm not. I'm not sure if that is the 3 UtiliCorp model or not. ο. You're not sure if that --I don't -- I don't know what model we used in 6 those. I'm sorry. You don't know what model the people that work Q. 8 for you use? λ. I do not, no. Okay. Flip back to the front page then. Do 11 you see where it says from Dennis Florom and a message to 12 Sedina Eric? 13 A. Yes, I see that. Q. Do you have any reason to believe that is 15 not -- do you see the return address on Dennis Florom's? 16 A. Yes. I see that. 17 Q. So do you have any doubt that this document, 18 pages 1 through 3 of Exhibit 304, was from Dennis Florom 19 to Sedina Eric? 20 λ. I don't have any reason to believe that it 21 didn't come from Mr. Florom. 22 MR. KEEVIL: Judge, I'd offer Exhibit 304. JUDGE WOODRUFF: Exhibit 304 has been offered 23 24 into evidence. Are there any objections? 25 MR. DUFFY: I'll object on the basis of no --ASSOCIATED COURT REPORTERS, INC. JEFFERSON CITY \* COLUMBIA \* ROLLA TOLL FREE - (888) 636-7551 1240

1 inappropriate foundation was laid. 2 JUDGE WOODRUFF: And anything more specific? MR. DUFFY: No. JUDGE WOODRUFF: Okay. The objection is 5 overruled. It will be received. (EXHIBIT NO. 304 WAS RECEIVED INTO EVIDENCE.) 7 BY MR. KEEVIL: So Mr. -- just to reiterate, Mr. Kreul, you ο. 9 cannot explain Mr. Florom's study there on page 3 of 10 Exhibit 304? A. 11 No. I cannot. Q. 12 If you assume, Mr. Kreul, that that 102 shown 13 in that far right column, page 3 of Exhibit 304 on the 14 Sibley to Duncan line, indicates the -- let me make sure I 15 get the technical term correct -- if you assume that that 16 102 is the percentage of the emergency rating that that 17 line is carrying under that condition indicated up there 18 at the top of the schedule, would that line carrying 19 102 percent of the emergency rating and the 2000 summer 20 peak base case heavy north/south transfer constitutes a 21 loading violation? 22 If you assume that the far right column, what 23 you're speaking of, is 102 percent of the emergency 24 rating, I would -- I think I could state that it's over 25 the emergency rating.

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Loadflow studies are conducted on a regional 2 basis, yes. ٥. Okay. Do you believe that the Southwest Power 4 Fool has the requisite knowledge, information and 5 understanding to conduct regional loadflow studies? They do that as a practice, yes. Now, recently UtiliCorp asked the Southwest ο. 8 Power Pool to conduct an analysis of providing 9 transmission service necessary to run the post merger 10 UtiliCorp as a single control area. Correct? 11 λ. That's correct. 12 MR. KEEVIL: Judge, I'm handing Mr. Kreul what 13 has been premarked as Exhibit 301. 14 BY MR. KEEVIL: 15 Q. Now. Mr. Kreul, I realize that this is not the 16 entire Southwest Power Pool study that I've handed you in 17 Exhibit 301, although I do have some -- another exhibit 18 that has the bulk of the remainder of the study, but I 19 will represent to you and see if you would agree with me 20 that Exhibit 301 is the first five pages of that Southwest 21 Power Pool system impact study that UtiliCorp requested 22 and essentially just contains a marrative of the findings 23 by the SPP based on the study. 24 Would you agree with that representation, sir?

I would agree with it, yes.

3 into evidence. Are there any objections?

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JUDGE WOODRUFF: Judge, I'd offer Exhibit 301.

JUDGE WOODRUFF: Exhibit 301 has been offered

(EXHIBIT NO. 301 WAS RECEIVED INTO EVIDENCE.)
MR. KEEVIL: I hadn't planned to do it in this

MR. KEEVIL: I'm distributing now what's been

Kearing none, it will be received.

JUDGE WOODRUFF: You might as well.

7 order, Judge, but I figured while I'm here, I might as

(EXHIBIT NO. 303 WAS MARKED FOR

ο. And would that constitute a loading violation? I couldn't tell you if that's a loading A. 3 violation or not. ο. Whose criteria -- well, let me ask this: Why 5 can you not say if that would be a load violation or not? Well. I could say that it exceeds the emergency A. 7 violation. Again, I don't know what -- how you would 8 define a loading violation. It clearly exceeds -- it 9 would exceed the emergency viola -- emergency level. 10 Q. Do you know how UtiliCorp defines the loading 11 violation? A. 12 Not specifically, no. 13 ٥. What's your position in the company again, 14 Mr. Kreul? 15 λ. I'm vice-president of energy delivery. Energy delivery. Which would include electric 16 ٥. 17 transmission? 18 A. Which includes electric transmission. 19 All right. Now, if I could direct you to 20 line 16 there of page 2. You state that UtiliCorp studies 21 are superior to Springfield study because UtiliCorp has 22 more accurate information and a clear understanding of the 23 facts. Now, do you believe that loadflow studies

15 ο. Mr. Kreul. do you recognize what I tust handed 16 you that is marked as Exhibit 303 as the bulk of the 17 remainder of that Southwest Power Pool study? 18 If you'll notice the first page there of what I 19 just handed you begins on page 6, which would pick up 20 right after the previous exhibit I handed you? A. Yes, it appears to be. 21 22 Q. All right. 23 MR. KEEVIL: Judge, I'd offer Exhibit 303. 24 JUDGE WOODRUFF: All right. Exhibit 303 has 25 been offered into evidence. Are there any objections? 25 should be conducted on a regional basis? ASSOCIATED COURT REPORTERS, INC.
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8 well.

11 premarked as Exhibit 303.

13 IDENTIFICATION.)

9

12

A.

Hearing none, it will be received.

(EXHIBIT NO. 303 WAS RECRIVED INTO EVIDENCE.)

BY MR. KEEVIL:

Q. Now, Mr. Kreul, the Southwest Power Pool impact

study represented in Exhibits 301 and 303 showed adverse

5 study represented in Exhibits 301 and 303 showed adverse 6 impacts of the integration or -- yes -- integration 7 necessary to run your post-marger company as a

8 single-control area, didn't it?

9 A. I recall that it did under these scenario -10 under this scenario -- under the scenario that the study
11 was run, yes, sir.

12 Q. I'm glad you said that. What was the scenario 13 under which the study was run, Mr. Kreul?

14 A. Well, it was under existing facilities in 15 place.

16 Q. And those adverse impacts shown in the study
17 would be quite costly to correct. Am I accurate in that?

18 A. It would be costly, yes.

19 Q. And, Mr. Kreul, if I could have you look over 20 on page -- I believe it's page 4 of your surrebuttal. You

21 refer to Mr. Russell testifying or containing in his

22 rebuttal testimony reference to three lines that do not

23 exist. But then down there on line 13 -- you make that

24 criticism of Mr. Russell beginning on line 10, I believe.

25 But then on line 13 of that same page you state that the

ASSOCIATED COURT REPORTERS, INC. JEFFERSON CITY \* COLUMBIA \* ROLLA TOLL FREE - (888) 636-7551 1245 1 A. The details of loadflow modeling, yes, I am.

2 Q. Okay. So personally you would not be in a

3 position to criticize the results of loadflow study done
4 by someone else?

5 A. I'm not quite sure what you mean by personally.

g. You would not be in a position to --

7 A. Well --

8 Q. Go ahead.

9 A. I was -- it was obvious to me that these are
10 fic-- fictional points, and it was, again, obvious to me
11 that Mr. Russell was speaking to these as if they were not
12 fictional points. That was the point of my, as you call
13 it. criticism.

14 Q. But in terms of the impact of that on the 15 loadflow study, you I believe admitted a moment ago that 16 it has no bearing on the results of the loadflow. Is that

17 correct?

18 A. That's correct.

19 Q. Over on page 5 of your surrebuttal, you state 20 on line 15 that all of the lines noted by Mr. Russell are 21 being upgraded, thus no longer a problem. Correct?

22 A. That's what I state, yes.

23 Q. Now, when you say all of the lines noted by 24 Mr. Russell, which lines specifically are you referring 25 to?

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- 1 buses to which Mr. Russell referred were added by
- 2 UtiliCorp to the loadflow models in the transmission
- 3 study. Is that correct?
- 4 A. That's correct.
- 5 Q. So the material which was provided by UtiliCorp
- 6 to Mr. Russell's firm contained these fictional buses
- 7 which were added by UtiliCorp; is that correct?
- 8 A. That's correct.
- 9 Q. Now, since there are no active connections with
- 10 other facilities at these fictional buses, the existence
- 11 of these buses on the line has no effect on the power flow
- 12 through the Lake Road to Mashua line. Correct?
- 13 A. That's my understanding.
- 14 Q. So whether you model that as one line or three
- 15 sections, three different lines all added together as one
- 16 line, it has no effect on the results of Mr. Russell's
- 17 loadflow study. Correct?
- 18 A. I'm not familiar with the details of modeling,
- 19 so I couldn't accurately answer that.
- 20 Q. Okay. Did you prepare this portion of your
- 21 testimony?
- 22 A. It was prepared under my direction, yes.
- 23 Q. By whom?
- 24 A. By engineers in my group.
- 25 Q. But you're unfamiliar with loadflow modeling?

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- 1 A. I believe in his rebuttal testimony, actually 2 it's in the question beginning at Line No. 10 there, he
- 3 discusses the lines of Pleasant Hill to Lake Winnebago and
- 4 from Lake Winnebago to -- Lake Winnebago to Hook Road
- 5 experienced overloading.
  - Q. Okay.

13

- 7 A. Those are the lines I'm -- and then also the
- 8 Greenwood to Lee's Summit, I believe. Those are the 9 lines, yes.
- 10 Q. Okay. Now, when will those lines be upgraded?
- 11 A. They've -- they've been upgraded already. It's 12 completed.
  - Q. They are completed now?
- 14 A. That's correct.
- 15 Q. Okay. To what standard were they upgraded?
- 16 A. I'm not quite sure. I guess to UtiliCorp's
- 17 standard. I'm not sure what you mean by the question.
- 18 Q. Let me have you turn back to page 3 of your
- 19 surrebuttal, Mr. Kreul, beginning on line 14. I believe
- 20 what you're saying in that answer there is that you can
- 21 cure that loading violation problem on the Sibley to
- 22 Duncan line by redispatch. Is that correct?
- 23 A. That's what I'm stating there, yes.
- 24 Q. And beginning on line 17 you say that this
- 25 procedure calls for reducing generation at Sibley and/or

1 increasing generation at Greenwood. Is that correct? 2 A. That's correct, that's what it says. Does that mean you never have a situation at --3 ο. 4 in which Greenwood cannot be increased? I'm sorry. I don't understand your question. Is Greenwood ever fully loaded? ٥. You know, I don't -- I don't know if it is or λ. 8 not. If it was, that would certainly impact your 10 operating procedure, would it not? If it was, that would, yes. 11 ж. 12 Concerning redispatch, UtiliCorp has no 13 obligation to redispatch for firm point-to-point 14 transmission customers. Correct? 15 I believe that's correct. 16 Okay. So if redispatch would allow UtiliCorp 17 to avoid curtailing a firm point-to-point transmission 18 customer, UtiliCorp would nevertheless curtail that 19 gustomer. Correct? 20 A. That's not necessarily true. 21 Q. Under what circumstances would you not? I don't know of any circumstances. But hypothetically speaking you could imagine 23 Q. 24 such a situation? I could imagine such a situation, yes.

MR. KEEVIL: You're right. MR. DUFFY: This line doesn't go to the State 2 3 of Nevada. MR. KEEVIL: I was getting ahead of myself. I 5 thought you were trying to keep the slot machines rolling 6 there. 7 BY MR. KKEVIL: Q. Now, you said this would be done after the 9 consummation of the merger. Is that correct. Mr. Kreul? 10 λ. That is correct. Q. Okay. So if you don't start -- I assume that 11 12 would be when you would begin the upgrade or the 13 construction or when you would budget -- what exactly 14 would happen after the consummation of the merger as it 15 relates to the construction of these lines? 16 λ. Well, we haven't worked out the intimate 17 details of when we would start engineering, construction, 18 material procurement, that sort of thing. So I think it would be conceivable we could 20 start prior to the consummation, but it's -- most of the 21 work would probably follow after the closing of the deal. 22 Q. Now, is construction of those lines reflected 23 in the Company's savings calculation of the merger? 24 λ. Yes, I believe they are, 25 Q. Okay. Now, is that budgeted then, the ASSOCIATED COURT REPORTERS, INC. JEFFERSON CITY \* COLUMBIA \* ROLLA TOLL FREE - (888) 636-7551 1251

ο. Would there be a charge to the customer in that 2 situation? In which situation? λ. Well, in the situation where you did not 5 curtail them. No, I do not believe there would be. Would the same thing be true for a network B service customer? λ. I honestly don't know if there would be any 10 differences or not. 11 ٥. Page 7 of your surrebuttal, beginning on 12 line 7, I guess it begins, with the word "after," 13 continues on, after the completion of the upgrade to the 14 LR-Nashua line and the construction of the Nevada-Asbury 15 line, ATCs in these regions will be increased. 16 Do you see that, sir? 17 I see that, yes. Now, is it my understanding that UtiliCorp is 18 19 making a commitment to upgrade the LR-Nashua line and 20 construct the Nevada-Asbury line? Upon merger -- consummation of the merger, yes. 21 A. 22 Upon consummation of the merger. Okay.

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25

A.

MR. DUFFY: I think that the Commission should

24 take notice of the fact that the people down there call it

25 Nevada.

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> 1 construction and upgrades of those lines? 2 A, Yes, I believe it is. Q. But you haven't gotten into the engineering 4 details? 5 λ. Preliminarily we have, yes, sir. Q. When will those lines be in service? It's difficult to say. The one from Nashua to A. 8 Lake Road going into St. Joe is anticipated that will go 9 much quicker because the right-of-way has already been --10 it's acquired. The arrangement -- we would be doing a 11 deal with KCP&L, currently has the right-of-way. 12 The one going south where we interconnect with 13 Empire, there is no right-of-way that has been acquired, 14 so that -- we anticipate that to take a little bit longer. 15 Now, on page 7 where you're talking about those 16 lines, you state that ATCs will be increased. How much 17 ATC will be gained on a north/south transfer? 18 A. I'm not sure. 19 Let me ask you this: How much ATC will 20 increase overall? 21 A. I'm not -- I'm not sure. 22 Q. How much will be gained south to north? 23 A. I'm not sure. 24 But you're sure that they will be increased? ٥.

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Yeah. We have committed that with -- with the

1 construction of these lines and then the dispatch, the 2 joint dispatch, we will not -- we will not be in a 3 situation where we actually lower the ATC. We will 4 increase the ATC in the area. Now, Mr. Kreul, in your -- well, let me start ٥. 6 that over. After the Southwest Power Pool completed this 8 study, in response to a letter ordered from the FERC, 9 UtiliCorp filed a response to the FRRC and included 10 therewith with some supplemental testimony on your behalf 11 at the FERC. Is that correct? 12 A . That's correct, yes. As it relates to this --13 to the margar, I presume you're speaking of? Yes, in the FERC merger document. 14 Q. Okav. Yes. 15 A. 16 MR. KEEVIL: Judge, I'd like to hand out 17 Exhibit 302 at this time. (EXHIBIT NO. 302 WAS MARKED FOR 18 19 IDENTIFICATION.) 20 BY MR. KEEVIL: Q. Mr. Kreul, if I could have you look at what 22 I've handed you -- it has been premarked as 23 Exhibit 302 -- and ask you if that appears to be the

24 response of UtiliCorp to the FERC letter order in FERC

25 Docket No. EC00-28-000?

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λ. Yes, that's right. So as I understand it, the post merger -- by 3 the way, just so everyone is clear, that two docket 4 numbers on the FERC case reflect the fact that the FERC 5 case covers both the UtiliCorp/St. Joe merger and the 6 UtiliCorp/Empire merger. Is that your understanding, Mr. Kroul? I couldn't tell you if it does or not. I'm 9 sorry. Well, flip back to the very first page of your 10 Q. 11 testimony -- or supplemental FERC testimony that we're 12 looking at, and look at the caption at the top of the 13 page. 15 Okay. Now, you see where it has two docket Q. 16 numbers and two case captions? 17 Yes, I see that. A. 18 All right. Now, as I was getting to -- as I 19 understand it, in this testimony, supplemental FERC

20 testimony, you have stated that the applicants -- and that 21 would be in the FERC case, UtiliCorp, St. Joe and Empire,

22 I believe, are willing to limit the amount of priority 23 transfer right to 100 megawatts and 200 megawatts for a

24 period of three years depending on the direction of the

25 export. Is that correct?

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1 λ. Yes, that appears to be. And if you'd flip, oh, about ten pages into it, 3 you come to the beginning of what is apparently the 4 supplemental testimony of Richard C. Kreul. Do you see 5 that, sir? A. Yes, I see it. Is that the supplemental testimony that you 8 filed in those exptioned FERC dockets? Yes, it appears to be. 9 A. MR. KEFVIL: Judge, I'd offer Exhibit 302. 10 JUDGE WOODRUFF: Exhibit 302 has been offered 12 into evidence. Are there any objections to its receipt? Hearing none, it will be received into 13 15 (EXHIBIT NO. 302 WAS RECEIVED INTO EVIDENCE.) 16 BY MR. KEKVIL: 17 Q. Now, in your FERC testimony which is contained 18 as part of Exhibit 302, Mr. Kreul, I believe, if I could 19 find the reference there, the top of page 5 of your 20 supplemental FERC testimony, beginning on the bottom of 21 page 4 --22 λ. -- you refer to your willingness to limit the Q. 24 amount of transfer capability that is reserved between the 25 three current control areas; is that correct? ASSOCIATED COURT REPORTERS, IN JEFFERSON CITY \* COLUMBIA \* ROL TOLL FREE - (808) 636-7551

2 19 21 surrebuttal, have you reached that amount of ATC increase

A. That's -- that's my testimony, yes. Now, have you reached -- well, let me back up. On page 6 of your surrebuttal in the State case 4 here -- I believe it's page 6 -- yeah, page 6, line 10 of 5 your surrebuttal in the Missouri PSC docket, you state 6 that regional ATC will be increased approximately 7 700 megawatts. That's what I state, yes. Now, is that as the result of the construction 10 of these two lines that you're referring to over on page 7 11 of your surrebuttal testimony? That's the result of the construction of the 13 Lake Road to Nashua line that would interconnect St. Joe's 14 operations with Utilicorp's. ο. Okay. And does it not take into account the 16 construction of the, as Mr. Duffy says, Nevada to Asbury 17 line? Okay. Now, when you're referring to that 20 700 megawatt increase of ATC on page 6 of your

22 by analyzing the loadflow base case? A. As I understand what that 700 is, is when we

24 build the Nashua to Lake Road line, that increases -- the 25 regional ATC increases the ability to flow more energy

1 north to south.

- How is that 700 megawatt increase in ATC 3 arrived at? I mean, did you run a study? Did someone run
- A. A study was run, yes.
- By whom? ٥.
- Again, the engineering group within my group. **A**.
- Do you know the name of the engineer? Q.
- I could not tell you specifically, no. 9 A.
- 10 Okay. And does this have anything to do -- I Q.
- 11 believe earlier you stated that you were not personally
- 12 familiar with running loadflow models.
- I'm not personally familiar with that, no. 13
- Okay. Now, are you familiar with the fact that 14
- 15 the Southwest Power Pool ISO is responsible for the
- 16 calculations of ATC in the region?
- 17 I don't believe there is a Southwest Power Pool
- 18 ISO.
- 19 Q. Do you believe that an RTO should calculate the
- 20 ATC for a region?
- 21 That is one of the functions of -- proposed λ.
- 22 functions of an RTO, yes.
- 23 Okay. Rather than each individual utility Q.
- 24 company calculating their own ATC?
- Well, I think the way it would work, the two 25

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- 1 either accept risk or provide solution?
- 2 A. Um, not being intimately familiar with this
- 3 report, but what I -- I believe that is, with the
- 4 scenarios that the SPP ran the study under our request of
- 5 network service, and again, that did not include the new
- 6 construction of Lake Road to Nashua and the Asbury to
- 7 Nevada lines, that apparently there was some voltage
- 8 problems as -- as indicated in this report.
- 9 Q. Okay. So there were voltage problems found on 10 the SPP. Correct?
- 11 A. Under the acenarios they ran in the study, yes.
- Okay. On page 11 of your testimony, Ο.
- 13 surrebuttal testimony, in the Missouri Public Service
- 14 Commission proceeding, page 11, beginning on line 17, you
- 15 state that a look at the Southwest Power Pool 2001 summer
- 16 peak model reveals that the lowest bus voltage in the
- 17 Empire system is 92 percent (8 percent below nominal), and
- 18 this occurred on a a 34kV bus.
- 19 Five buses in the Empire system exhibited bus
- 20 voltages below 95 percent but still above 90 percent and
- 21 these were all a 34kV buses.
- 22 No buses at 69kV or above exhibited bus
- 23 voltages less than 95 percent. Did I read that correctly?
- 24 A. You read that correctly.
- 25 If I could have you look on page 26 of ο.

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- 1 would work in conjunction with one another.
- 2 Q. Is SPP responsible currently for calculating
- 3 ATC in the region?
- You know, I don't -- don't think that they are.
- 5 They can do that, but I don't think that they are
- Has SPP --
- MR. KERVIL: Just so the record is clear, Your
- 10 Pool.
- 12 Q. Mr. Kreul, has SPP confirmed your unnamed
- 13 engineers' finding of an increase in ATC of 700 megawatt?
- I don't believe they have. I -- I don't know.
- 15 I have no knowledge of them doing it.
- 16 Q. Would you take a look at Exhibit 303, if you'd
- 18 this first, Mr. Kreul: What is your understanding of what
- According to the title on the top of the page,
- 21 this is a voltage report table.
- ٥. Okay. Can you explain to me the numerous
- 23 conditions with voltage lower than 90 percent in the

- λ.
- 6 deemed -- deemed to have the responsibility of doing that.
- 9 Honor, when I say SPP, I'm referring to Southwest Power
- 11 BY MR. KEEVIL:
- 17 look at page 24. Do you see down there -- well, tell me
- 19 is shown on page 24 of Exhibit 303?
- 24 Empire and Missouri Public Service area reported in this
- 25 study and which are shown on the far right column as being

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- 1 Exhibit 303. I believe it's the bus number. But the 2 column on the far left, the 59570, do you see that, down
- 3 at the second to the bottom?
- A. 59579. On page 26?
- ٥. Yes.
  - A. Second from the bottom is 59579.
- Okay. I was actually on the -- over in the far
- 8 left side of the page, Mr. Kreul.
- A. 9 I'm sorry. Okay. Okay.
- 10 ٥. Those may not be bus numbers. Is that -- on
- 11 the far left column, are those bus numbers?
- 12 A. I don't know.
- 13 ο. Okay. You see the second narrative there that
- 14 begins on the left side, 59570 --
- 15 Yes. A.
- 16 ٥. -- to bus 59604.
- 17 If you follow that line over to the right side
- 18 of the page, you'll see a bus No. 59570 OZK330 269.0. Do
- 19 you see that?
- 20 A.
- 21 Q. Well, that 269.0 indicates that that's a 69kV
- 22 bus. Correct?
- 23 A. Okay. I don't -- I don't know that to be the 24 fact, no.
- 25 Q. You don't know --

- I wouldn't know how they indicate it in this 1 A. 2 report, no. Q. Well, why not? I'm not intimately familiar with this report. A. 5 I'm sorry. Q. You testify about this report. Correct? λ. Yes, I do. And you state that no buses at 69kV or above in ٥. 9 this report exhibited bus voltages less than 10 95 percent. Correct? 11 A. That's what I stated, yes. So if you don't know how the 69kV buses are 12 13 indicated in this report which you just testified to, how 14 can you make that statement in your testimony? 15 MR. DUFFY: Well, Your Honor, I'm going to 16 object. There has been no foundation laid that the report 17 in Exhibit 303 is the same report that is being referred 18 to on page 11 as the 2001 summer peak model. 19 You first have to establish we're both talking 20 out of the same hymnal here. 21 JUDGE WOODRUFF: Mr. Keevil, can you make 22 that --23 MR. KEEVIL: Certainly. Actually I think that
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- 1 said earlier, that this report does indicate that there 2 are voltages below 95 percent.
- 3 Q. Mr. Kreul, did you prepare the portions of your 4 testimony which refer to the Southwest Power Pool study as 5 shown in Exhibit 303 or did someone else?
- 6 A. It was prepared under my direction, yes.
- Q. You directed someone else to prepare it.
- 8 Correct?
- 9 A. Yes.
- 10 Q. But you do not know if what they prepared based
- 11 on the study was correct. Is that a true statement?
- 12 A. Well, no, I -- I assume it is correct.
- 13 Q. No. No. Excuse me, sir. I didn't ask if you 14 assumed that it was correct. This is your testimony, is
- 15 it not?

17

- 16 A. It is my testimony.
  - Q. Has an affidavit signed by you and notarized?
- 18 A. It is my testimony.
- 19 Q. So this is your testimony. But you do not know
- 20 if the references prepared by someone else in your
- 21 testimony to the Southwest Power Pool study are correct.
- 22 True?
- 23 A. Yes, they're correct.
- 24 Q. Okay.
- 25 MR. KREVIL: Judge, I'm going to move to strike

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## 1 BY MR. KERVIL:

25 we'll do it again.

- 2 Q. Mr. Kreul, you are referring on page 11 to the
- 3 Southwest Power Pool study which was requested by
- 4 UtiliCorp and run according to the parameters UtiliCorp

24 was the statement when the exhibit was introduced, but

- 5 gave the Southwest Power Pool, are you not?
- 6 λ. Yes, Iam.
- 7 Q. All right. And that would be Exhibit 303 as we
- 8 have previously determined. Correct?
- 9 A. That's correct.
- 10 Q, All right.
- 11 JUDGE WOODRUFF: Your objection is overruled
- 12 then.
- 13 BY MR. KREVIL:
- 14 Q. So when you state on line 20 of page 11 that no
- 15 buses at 69kV or above exhibited bus voltages less than
- 16 95 percent in this study but you also indicated you don't
- 17 know how to tell from looking at this study which buses
- 18 are 69kV buses and which aren't, how can you make the
- 19 statement you make on page 11 of your surrebuttal
- 20 testimony?
- 21 A. Well, again, this testimony was prepared under
- 22 my direction. I do not -- I'm not familiar -- intimately
- 23 familiar with these reports, and -- you know, I see your
- 24 point, if, in fact, you designate -- your correction --
- 25 you're correct about the 69kV bus as designated like you

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- 1 all references -- I didn't know he was going to say that.
- 2 It will take me a while if you want me to go through one
- 3 by one -- but any references in his surrebuttal testimony
- 4 to the -- what would this be -- criticizing
- 5 Mr. Russell's study on the basis of his interpretation of
- 6 the Southwest Power Pool study which he now said he
- 7 doesn't know how to read and someone else prepared for
- 8 him.

15

- 9 MR. DUFFY: Your Honor, that goes to the weight
- 10 and not the admissibility of the evidence.
- 11 JUDGE WOODRUFF: I believe your objection is
- 12 correct, that it does go to the weight. I will give you
- 13 an opportunity to mark and reindicate on the record what
- 14 portions are involved here.
  - We're going to take a break --
- 6 MR. KEEVIL: Before we do that, just for
- 17 clarification, Judge, like I said, I had no idea he was
- 18 going to say that. Can I have some time to late-file
- 19 that? It will take me some time.
- 20 JUDGE WOODRUFF: I thought you wanted to do it
- 21 right now.
- 22 MR. KEEVIL: No. I'd like a week or ten days
- 23 or whatever.
- 24 JUDGE WOODRUFF: Okay. Yeah, we can do that,
- 25 ten days. And that will give the other parties a chance

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1 to respond to that when it's filed.
               MR. KEEVIL: That's fine. Thank you.
2
               JUDGE WOODRUFF: But it is time to take a
 4 break. Let's come back at 10:45.
               (A RECESS WAS TAKEN.)
               JUDGE WOODRUFF: We're on the record.
               MR. DUFFY: Your Honor, during the break the
8 witness informed me that he realized that he had made some
9 incorrect responses in his previous testimony just prior
10 to the break and he would like to correct those erroneous
11 statements at this time.
               MR. KEEVIL: Judge, I'd like to explore the
12
13 basis of his discovery on that.
14
               JUDGE WOODRUFF: You certainly may.
15 BY MR. REEVIL:
16
             Mr. Kreul, did you discover you made erroneous
17 statements in your previous testimony --
               MR. DUFFY: Well, Your Monor, can we make the
18
19 corrections first and then allow Mr. Keevil to ask
20 whatever questions that he wants to do about that.
               MR. KEEVIL: No, because then they'll be in
22 there. You know, they'll be on the record.
               JUDGE WOODRUFF: Go ahead and ask your
23
24 questions first, Mr. Keevil.
25 BY MR. KEEVIT.
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1 it needs to be argumentative. MR. KEEVIL: I object to them now coming back 2 3 after he's had the chance to be comohed by this other 4 engineer and change his answers that he's previously --5 you know, we spent an hour and a half going through a 6 minute ago. JUDGE WOODRUFF: All right. Your objection is 8 noted. It will be overruled. It certainly goes to the 9 credibility of the witness rather than his admissibility 10 as previously argued. 11 You may go ahead and make your corrections. THE WITNESS: Previously we were speaking to my 12 13 responses to Mr. Russell's comments that -- well, I'm 14 sorry. 15 In my surrebuttal testimony I stated that there 16 is no bus -- no buses at 69kV or above exhibited bus 17 voltage less than 95 percent. And that was in the SPP 18 2001 summer peak model. 19 That is not referred -- that is not the case in 20 this network service flow model that SPP did for us. So 21 it's two different reports. 22 He'd asked earlier -- you asked me -- I think 23 your previous question, was it the same report and I said 24 yes, it was, and it's really two different reports. Mr. -- so that's a different report entirely ٥. ASSOCIATED COURT REPORTERS, INC. REFFERSON CITY \* COLUMBIA \* ROLLA TOLL FRRE - (888) 636-7551 1267

Mr. Kreul, did you discover you had made 2 erroneous answers in response to the previous questions 3 after consultation with anyone from UtiliCorp? 4 λ. Yes. Q. Who was it that you consulted with that 6 informed you that you had given incorrect answers? One of my engineers, engineers in my group. . Okay. So it was the engineer in your group 9 that realized you had made incorrect answers to your 10 previous testimony? 11 Yeah. Upon discussing with him we both dis--12 discovered that there were errors in my testimony. You both discovered. After --13 Q. 14 A. After -- after consulting with him, I 15 discovered there were errors in my testimony. 16 ٥. Based on what he told you? 17 **A**. Yes. 18 Q. 19 MR. KEEVIL: This is still not his testimony. 20 He's testifying -- somebody else apparently has knowledge 21 on this matter. They put him up there on the stand to 22 testify. 23 MR. DUFFY: Your Honor, that's just 24 argumentative. 25 JUDGE WOODRUFF: He's making an objection, so

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1 then the SPP report that you're referring to? λ. The SPP -- that was a 2001 summer peak model 3 where there were no buses at 69kV or above that 4 exhibited --Q. Okav. -- bus voltage. λ. MR. KREVIL: Well, Judge, I'm going to --8 BY MR. KREVIL: Or let me ask you this, Mr. Kreul: Was that 10 SPP study to which you are referring on page 11 of your 11 surrebuttal provided to Springfield in response to DR 12 request? 13 λ. No. it's not. That was not? 14 Q. 15 A. No. 16 But it was requested by Springfield in ο. 17 discovery. Correct? 18 λ. Well, this would be available to Springfield. 19 They're a member of SPP. It's a --No. Springfield requested you to provide them 20 ο. 21 with studies of the -- such as that on the bottom of 22 page 11 of your testimony, correct --23 A. That's correct. 24 Q. -- in the discovery? 25 Did you provide that response to Springfield in ASSOCIATED COURT REPORTERS, INC. JEFFERSON CITY \* COLUMBIA \* ROLLA TOLL FREE - (888) 636-7551 1268

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1 response to their discovery asking for it?
      A.
              Yes, we -- yes.
              You provided the 2001 summer peak?
       ٥.
              Oh. I don't know -- I don't know if we provided
      1
 5 that particular model to them or not. Again, that's --
 6 that's a SPP model that is available to anybody and
 7 everybody as a member of SPP.
       Q.
              But you don't know if UtiliCorp responded in
 9 response to discovery or not?
              No. I do not.
10
      A.
              MR. KEEVIL: Well, Judge, I'm going to -- a
11
12 different basis this time, since he -- since he changed
13 his study on me.
              I am going to again move to strike --
              MR. DUFFY: Well, Your Honor, he didn't change
15
16 the study ~-
17
              MR. KEEVIL: I am not finished, Mr. Duffy. May
18 I finish my --
19
              JUDGE WOODRUFF: Please let him finish his
20 objection.
21
              MR. REEVIL: Springfield requested studies from
22 UtiliCorp, their copy. The only studies that were
23 provided to us in response to the data response -- data
24 request -- excuse me -- were the SPP studies that we have
25 here and the UtiliCorn information upon which Mr. Russell
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1 different things. I also understand that Mr. Keevil is objecting 3 about, apparently, whether Springfield asked for the 2001 4 summer peak model from SPP, and I don't know whether there 5 is any facts to substantiate at this point that they, in 6 fact, requested that specific model from UtiliCorp or that 7 UtiliCorp gave it to them or didn't give it to them. You know, that information is not at my 9 fingertips, and Mr. Keevil hasn't demonstrated by showing 10 us some specific data request that he, in fact, asked for 11 these things. 12 So I don't think that there is any basis for 13 his objection here other than he's aggravated that 14 Mr. Kreul changed his answer once Mr. Kreul found out what 15 the facts were. 16 JUDGE WOODRUFF: Mr. Keevil, did you 17 specifically request -- can you provide the specific 18 information about the data request? 19 MR. KEEVIL: We requested -- hang on a second, 20 Judge. 21 MR. DUFFY: Of what little assistance I may be 22 able to make, the reference made on page 11 of Mr. Kreul's 23 surrebuttal testimony to an SPP base case loadflow. It's

24 my understanding that SPP on an annual basis prepares base

25 case load flows.

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What is -- Exhibit 303 is a special study that

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I prepared his own study.
 2
               We didn't get this new study that Mr. Kreul has
 3 now remembered after discussing it with another engineer
 4 of UtiliCorp, and it's a direct violation of the
 5 Commission's own new discovery rules that require
 6 supplemental information be provided to other parties if
 7 they come in the possession of something that is
 8 responsive to a previous data request.
               So I would move again to strike his new
10 supplemental answer changing his previous testimony.
11
               JUDGE WOODRUFF: I'm not sure what exactly
12 we're at now.
13
               Mr. Duffy, do you want to say anything?
14
               MR. DUTTY: I don't -- I don't understand the
15 objection. I don't know what he's trying to do.
16
               I understand that there are two different
17 studies that are being argued about here. One is
18 Exhibit 303 and Exhibit 301, and there is a totally
19 different study that is referred to on page 11.
               And I understand that Mr. Keevil tried to -- or
20
21 asked Mr. Kreul whether those were the same things, and
22 Mr. Kroul said, yes, they were, and then Mr. Kroul said
23 no, they weren't the same things,
               And that is as much as I understand, and that
25 the -- and the record now reflects that these are two
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2 was done specifically for one situation, and it is not an 3 SPP base case loadflow. That's our understanding of why there -- we're 5 talking about two different things here. And if Springfield asked us for SPP base case 7 load flows, my understanding is we would not have given 8 them what is in Exhibit 303 because it's not an SPP base 9 case loadflow. 1.0 MR. KEEVIL: Judge, let me, if I could --11 JUDGE WOODRUFF: Yes, Mr. Keevil. Go ahead. MR. KEEVIL: If you'd turn to page 23 of 13 Exhibit 303, you see there on page 23 where it says 2001 14 summer peak, Missouri Public Service, area 540. 15 Go two pages further and you run into Empire. 16 That's the 2000 -- at page 25, 2001 summer peak, area 544. 17 Go another two pages of the 2001 summer peak, 18 St. Joseph Light & Power, area 679. 19 So those are, I believe, responsive to the 20 issue being addressed at the bottom of page 11. 21 But to get back to my original objection, that 22 he has in his testimony on page 11 something that he is 23 now claiming based on some other study they did not 24 provide us. We had requested --MR. DUFFY: We haven't --

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JUDGE WOODRUFF: Let him finish, Mr. Duffy.
              Mr. Keevil, can you explain again what you're
2
3 asking the Commission to do?
              MR. KEEVIL: Yes. My objection is, is that on
5 the bottom of page 11, apparently now Mr. Kreul is basing
6 that on some study that was not provided to Springfield.
7 After we took the break, he changed his mind as to what
 8 study he was basing it on. Now, it's a study that only
9 they have apparently.
              Data Request No. 28 -- and again, I apologise
10
11 Judge. I don't have the requisite number of copies of
12 this because I never dreamed this would become an issue,
13 but let me read it and then I'll show it to you.
14
              It says, please provide power system data bases
15 for the years 1999 and 2001 peak and off peak and PSS/E
16 electronic format of the SPP transmission system with more
17 detailed modeling of UtiliCorp, MoPub, St. Jos and Empire
16 transmission systems.
              In addition, please provide all power flow data
19
20 bases used by the applicants in any modeling conducted to
21 simulate power lever. That is one.
22
              We have other ones here, four or five of them
23 where the response of the Company was, the study by SPP
24 has been requested, expect results in two to three months.
              We did, like I said, eventually receive the
25
```

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I It's obvious to us, to me, that that was the 2001 loadflow 2 study and that is what I was responding to. Ο. So you don't know where he got his information 4 but you, therefore, responded that the study which you had 5 not provided to him was somehow different? A. Well, again --Q. Is that my understanding? -- he states in his -- in his statement he A. 9 says, base case loadflow and that's -- that is what I was 10 responding it. 11 0. Where is that? λ. It's line 14, page 11. 12 13 Q. Can we get a copy of the document to which you 14 are referring at the bottom of page 11, Mr. Kreul? 15 MR. DUFFY: Are you talking about the SPP 2001

17 MR. KEEVIL: Whatever Mr. Kreul is talking 18 about is what I'm talking about. JUDGE WOODRUFF: The study that they don't 19 20 have, apparently.

16 summer peak model?

21 MR. KEEVIL: Which he's basing his testimony 22 on.

23 MR. DUFFY: I'm trying to be cooperative here. JUDGE WOODRUFF: Right, I understand. MR. DUFFY: I want to understand if he's asking 25

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1 study which has been introduced as 303 but that's the only 2 study by SPP which we have received from the applicant. JUDGE WOODRUFF: Do you want to ask these 4 questions to the witness explaining -- and get his 5 response as to what was sent to you? MR. KEEVIL: Well, I think we covered that. 7 BY MR. REEVIL: You don't know what was sent to Springfield, do 9 vou. Mr. Kroul? 10 A. Under that particular data request? ٥. I know that we -- I believe we sent them the 12 A. 13 SPP network service, the flow study for the network 14 service. I don't believe we sent them any other report. 15 They have the SPP 2001 summer peak loadflow. I mean, 16 again, like I said earlier, that's available to anyone, 17 and I think that is what Mr. Russell was speaking to in 18 his rebuttal testimony, and that is how I -- that's what I 19 was responding to. 20 I mean, it's just -- line 13 of the question 21 was -- I mean, he made the statement in his rebuttal, some 22 voltages in the Empire area are more than 10 percent below 23 nominal in the SPP base case loadflow. And that's what I 24 was reporting to. 25 I'm not sure where he got that information. ASSOCIATED COURT REPORTERS, INC.
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1 about the 2001 summer peak model, I thought I heard Mr. 2 Kreul say that that's a product of the SPP, that any 3 member of the SPP can get it or that it's publicly 4 available and that Springfield can get it by asking for 5 it. And I ask Mr. Kreul to make sure that what I just 6 said is accurate. It doesn't have to come from UtiliCorp, is what 8 I'm saying. It's a publicly available document, if my 9 facts are correct. But Mr. Kreul needs to confirm that. JUDGE WOODRUFF: I think he's already testified 10 11 to that, actually. 12 MR. DUFFY: Well, that was my understanding. JUDGE WOODRUFF: Mr. Keevil, are you simply 13 14 asking if there is a copy of that in this room somewhere? MR. KEEVIL: Yes. JUDGE WOODRUFF: Is there a copy of that in 17 this room somewhere? MR. KEEVIL: Has it been introduced into the 18 19 record or anything? THE WITNESS: I'm unaware of a copy of it being 20 21 available in this room. I mean, it's apparent to me that 22 he has a copy of it because he referred to it in his 23 rebuttal testimony. 24 BY MR. REEVIL: And the results in that study would be

```
1 different than the results in Exhibit 303?
      ж.
              Why?
3
       O.
              Again, the base case flow study is normal SP --
5 the way that the grid operates and the normal study SPP
6 does, what the report, which you have, Exhibit 301, that
7 is a study we asked SPP to do for us, assuming a number of
8 things, and one is, the major assumption is, providing
9 joint dispatch back and forth from Empire to McPub, McPub
10 to St. Joe, which is not in the base case flow study as --
              During the break did you learn how to interpret
11
       Q.
12 the study shown in Exhibit 303?
              No, I did not.
      A.
              Okay. So I can't ask you any questions about
14
15 that?
              MR. DUFFY: It's argumentative. Mr. Keevil can
16
17 try to ask any question he wants.
              JUDGE WOODRUFF: The objection will be
18
19 overruled.
20
              Go ahead and ask the questions that you want.
21 BY MR. KEEVIL:
22
              Did you learn, Mr. Kreul, how bus voltages are
       ٥.
23 designated in Exhibit 303?
              I did not.
24
       A.
              MR. KEEVIL: Judge, it would be useless to ask
25
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- I'm unaware of one. When was St. Joe's criteria last changed? 2 A. I don't know. Okay. Regarding voltage, Mr. Kreul, tell me ο. 5 what devices provide the reactive power that support it. There is capacitors. Is that your question? A. Well, capacitors would be one. 0. 8 Yeah, capacitor is one. A. 9 Q. Would generators be another?
- 10 I don't know. A. 11 You don't know if electric generators provide ο.
- 12 reactive power to support --13 A. Yes, I believe generators provide reactive 14 power, yes.
- 15 Q. Thank you. 16 So if a generator is taken out of service, 17 there is no reactive power available from that generating

18 unit. Is that correct?

22 megawatt?

A.

Q.

23

25 generator running at one megawatt?

- 19 A. That would be my understanding, yes. ٥. Now, is it possible to dispatch a generator 21 with one megawatt output if the installed capacity of the
- 22 generator is 100 megawatts? 23 A. I really don't know. 24 Q. so you think you can dispatch a 100-magawatt

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1 Mr. Kreul about Exhibit 303, then, if he can't answer any 2 questions about it. MR. DUFFY: Object to Mr. Keevil testifying. JUDGE WOODRUFF: Overruled. 5 BY MR. KEEVIL: Mr. Kreul, what is the UtiliCorp voltage 0. 7 criteria? It's a criteria that I believe we operate plus 9 or minus 5 percent, normally operate within that range, if 10 that's what you mean, if that's what you're asking. 11 Under what conditions do you operate at plus or Q. 12 minus 5 percent? 13 A. Under normal conditions, no contingencies. 14 What about the contingency situation? 15 I believe at that point it's plus or minus **A**. 16 10 percent. 17 Q. What is St. Joseph Light & Power's voltage 18 oritoria? 19 A. I believe it's the same. 20 Q. You believe it's the same.

21

Q.

On what do you base that belief? Just the common knowledge and discussion with 23 St. Joe, but nothing in particular. So St. Joseph Light & Power does not have a 25 higher voltage criteria standard than UtiliCorp?

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1 λ. That's not what I said. I said I don't know. Q. Well, let's assume that that's what -- the 3 situation where we have a 100-magawatt generator at one --4 being run at one megawatt. If that situation was input 5 into a loadflow state, what would be the reactive power 6 output of that generator bus? I'm sorry. I wouldn't know. Why is that? Is that -- I'm not trying to be hard to get 10 along with either. But does that go back to your unfamiliarity 12 with performing loadflows? I'm just -- I don't -- under that scenario 13 A. 14 where you have a 100-megawatt unit and the output is only 15 one megawatt, I'm not sure what that would do to the 16 system, if it would provide reactive power or not. 17 Q. Okay. Well, this may be a different spin on 18 the same thing. If it is, I apologize. 19 Would you agree that simulated voltages would 20 be higher than they would be if that generator were taken 21 out of service rather than assumed to be in service at one

Could you repeat that? I'm sorry.

25 will be higher in the situation we've been talking about

Okay. Do you agree that simulated voltages

1 than they would be if that generator were completely taken 2 out of service instead of being assumed to be in service 3 at an unrealistically low loading like one megawatt? A. Are the voltages higher with one-megawatt imput 5 than they are without the one megawatt? Is that your 6 question? Q. Basically, yeah. A A. I would think that's a reasonable assumption. Okay. Now, in the loadflow cases which 9 10 UtiliCorp provided to Springfield in response to data 11 requests, are you aware that some of the Empire District 12 generators are modeled at one megawatt? 13 A. I'm unaware -- unaware of that. 14 ο. Unaware of that. 15 Who performed that modeling for UtiliCorp? 16 **A**. Which modeling? 17 Well, the loadflows that were provided in 18 response to the data requests.

1

19

21

22

23

A.

Q.

A.

20 loadflow study? SPP provided that.

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Are you speaking about the SPP network -- the

But UtiliCorp provides the imputs. Correct?

If I could have you turn over to page 12 of

We provide data to SPP, yes.

25 your surrebuttal you state that UCU is -- excuse me --

24 your surrebuttal. Down there at the bottom of page 12 of

A. Each one would be different, different timing. 2 The St. Joe would be, I think, within a year. Q. Within a year from? 4 λ. From commencement of construction. 5 Q. Which would commence when? A. I'm not sure when that would have happened. Q. Has the equipment or supplies been ordered for 8 that? 9 Not that, no. Has it been budgeted? 10 Q. Yes, it has. 11 A. 12 0. Mr. Kreul, this hasn't been premarked. I may 13 or may not offer it as an exhibit. 14 MR. KEEVIL: For reference purposes, Judge, 15 what would my next number be? 16 JUDGE WOODRUFF: It would be 305. 17 BY MR. KREVIL: 18 Q. Okay. Mr. Kreul, I've handed you what may or 19 may not wind up as Exhibit No. 305. And can you identify 20 the -- what the material on that exhibit represents here? 21 No. I cannot. λ. 22 Q. Are you familiar with the reference at the top 23 here, the PTI information, Mr. Kreul? 24 A. I've heard that, yes. It's a flow -- flow 25 model, yes. ASSOCIATED COURT REPORTERS, INC JEFFERSON CITY \* COLUMBIA \* ROLL TOLL FREE - (888) 636-7551

1 this is beginning on line 18. 2 UCU is now committed to building the necessary 3 facilities to interconnect the merged company as described 4 in the UCU - SJLP Interconnection Study and the UMC -5 Empire Connection Study. Correct, Mr. Kreul? That's what I state, yes. A. Q. Okay. Now, as I recall those interconnection 8 studies, there were various options talked about in that. What lines exactly are you -- or facilities, I 10 should say, are you committing to build there at the 11 bottom of page 12? The St. Joe interconnect study would be the 13 Nashua to Lake Road 161kV line, and what I regall, the 14 UCU - Empire interconnect study. It's the Nevada to 15 Ambury 161kV line. 16 ٥. Now, in regard to the UCU - St. Joe facility, 17 are you talking about what shows up in your Schedule 18 RCK-10 as Option 28 or Option 2B modified? 19 I believe it would be 2B modified. A. 20 Q. And those really are the same facilities that 21 we spoke about earlier when you said -- when I asked you 22 when they would be completed. Is that correct? 23 A . That's correct. And to refresh my memory, when would the 25 in-service dates for those facilities be? ASSOCIATED COURT REFORTERS, INC. JEFFERSON CITY \* COLUMBIA \* ROLLA TOLL FREE - (888) 636-7551 1282

And is that the flow model that UtiliCorp uses Q. 2 or has the ability to run in? λ. Yes. Okay. Can you tell from looking at this if 5 this is the UtiliCorp material -- input data which was 6 provided to Springfield in response to data request? λ. No, I cannot tell what -- if that was provided 8 to SPP or not by UtiliCorp. It appears to be -- just with 9 handmarkings at the top of the page, it says Empire 10 machines. So I'm not sure if you believe that for what it Il means. It's not UtiliCorp generators. It would be Empire 12 generators. 13 ο. Empire generators. But in the studies that were done at the 15 request of UtiliCorp, the Empire machines were included, 16 were they not? They were part of the study, yes. I'm not λ. 18 sure -- and this information could have been -- it's just 19 from the database that SPP would have. I don't -- I don't 20 know where it came from. ο. So, Mr. Kreul, if I understood you correctly on 22 that last item we were just talking about, you are not 23 aware that some of the Empire generators in the loadflow 24 cases which UtiliCorp provided to Springfield are modeled

25 at one megawatt when they're a 100-megawatt generator?

No. I think what you're getting to, we didn't A. 2 provide that information to SPP. SPP ran models with 3 certain assumptions. And one of the assumptions it appears that they 5 made would, one, a particular generator would be one 6 mogawatt. I think what SPP did is what they call worst-8 flow modeling, where they crank up the generator on one 9 end and crank it down on the other end and see what that 10 does to the system. I think that's where you're getting 11 the -- where the one megawatt is coming from. That is 12 where they take a generator and crank it down to almost 13 zero. So you think that is SPP information rather 15 than your -- modeling rather than UtiliCorp? 16 A. Yeah. Those are assumptions SPP -- SPP was 17 making in the flow modeling that was requested. 18 MR. KEEVIL: Judge, if I could have just a

19 moment here.

JUDGE WOODRUFF: Yes, you may. 20

21 MR. KEEVIL: Judge, do you show Exhibits 301

22 through 304 as having been received?

JUDGE WOODRUFF: Yes. 23

Okay. And you referred to a previous document

25 as 305 but it was not offered.

24

ASSOCIATED COURT REPORTERS, IN JEFFERSON CITY \* COLUMBIA \* ROL TOLL FREE - (888) 636-7551 1285 1 from KCP4L and upgrade it to fit our needs.

Option 2B would be to build a line parallel to 3 KCP&L, assuming that KCP&L would not be interested in 4 selling that line to us.

The benefits of them selling it to us would be 6 we would not have to go out and acquire additional

7 right-of-way. But clearly that line is a weak link in --8 in the region and needs to be upgraded.

So Option 2B would be for us to build parallel 10 to us, and 2B is assuming KCP&L's line is intact and our

11 new line is intact, so there is two lines parallel.

Option 2B modified would be taking out the 13 KCP4L line. It would no longer be parallel. The only

14 line between Lake Road and Nashua would be our new line,

15 upgraded line.

What role would KCP4L play in the construction, Q. 17 if any, of those lines?

In that particular -- in 2B they would not have 18

19 a role. 2C is where that -- that comes into play, I

21 2C was to have KCP&L -- actually 2C came up 22 after having conversations with KCP&L and their interest

23 in building the line -- or selling the line to us and we

24 rebuilding it.

They expressed to us that they were not 25

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MR. KEEVIL: Right. I have no further questions, Judge. JUDGE WOODRUFF: Any other cross-examination? 3 Okay. There are no questions from the bench, 5 so no recross. Any redirect? MR. DUFFY: Yes. 8 REDTRECT EXAMINATION BY MR. DUFFY: Let's talk briefly, Mr. Kreul, about what was 10 referred to recently as, I quess, option 2B modified. Do 11 you remember that question? 12 A. Yes. 13 ۵. Just so the record is clear. I think you refer 14 in your testimony to something called 2C, and is 2C the 15 same thing as 2B modified or can you just explain what you 16 mean by 2B modified in layman's terms so we know what 2B 17 modified means. Well, in the St. Joe/UtiliCorp interconnection 18 19 study, we made a number of -- we looked at different ways 20 of interconnecting the two systems. One way was to build a line from Nashua --22 that's a substation within the UtiliCorp area -- to 23 St. Joe Lake Road power plant. 24 KCP&L has a line there already in place. 25 Ontion 2A would have been to purchase that line ASSOCIATED COURT REPORTERS, INC. REFFERSON CITY \* COLUMBIA \* ROLLA TOLL FREE - (888) 636-7551 1286

1 interested in selling the line, but they were willing to 2 work with us because they knew that was a weak link in the 3 system and were very interested in getting that line 4 upgraded. So we discussed the option of them actually 6 upgrading the line to fit our needs and then turn around 7 and leasing a line back to us for our use as if it were 8 our own line for a period of time. Earlier there was a lot of reference to 9 ο. 10 Exhibit 304, and particularly the last page of that 11 document where the number 102 has a square drawn around 12 it. 13 Do you remember that discussion? 14 Yes. And that refers, I think, to a Sibley to Duncan 16 transmission line. Is that correct? That's what this document indicates, yes. 17 All right. Please look at your surrebuttal 19 testimony on page 3 at lines 14 through 17. 20 A. Yeah, I can see that. Is the Sibley to Duncan line that you're 22 talking about there the same as the Sibley to Duncan line 23 that shows up on Exhibit 304? 24 λ. Yes, it is. 25 And you talk about -- on lines 15, 16 and 17,