1	BEFORE THE PUBLIC SERVICE COMMISSION
2	STATE OF MISSOURI
3	
4	TRANSCRIPT OF PROCEEDINGS
5	HEARING
6	March 5, 2002
7	Jefferson City, Missouri
8	Volume 7
9	
10	TOLEDY CODDODATION
11	ZOLTEK CORPORATION, )
12	Complainant, ) Case No. EC-2001-345
13	vs. )
14	UNION ELECTRIC COMPANY, ) d/b/a AMERENUE, )
15	Respondent. )
16	
17	
18	BEFORE:
19	KEVIN A. THOMPSON, Deputy Chief Regulatory Law Judge
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21	
22	
23	REPORTED BY: TRACY L. CAVE, CSR
24	ASSOCIATED COURT REPORTERS
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1	JUDGE THOMPSON: We're here for the continued
2	hearing in the matter of Zoltek Corporation, Complainant,
3	versus Union Electric Company, doing business as AmerenUE,
4	Respondent, Case No. EC-2001-345.
5	I think the first thing we have to take up is
6	the matter of some motions that I have here. I have a
7	motion to file Supplemental Rebuttal Testimony of Jeffrey V.
8	Hackman filed by Ameren. I have a motion to file
9	Supplemental Rebuttal Testimony of James B. Hulse filed by
10	Ameren. I have objections with respect to the Supplemental
11	Testimony of Mr. Hackman filed by the Staff.
12	Mr. May?
13	MR. MAY: Your Honor, I also have response to
14	those motions in which I object to the filing of
15	supplemental testimony. If I may approach?
16	JUDGE THOMPSON: You may.
17	MR. MAY: If you need more copies, I have some
18	more.
19	JUDGE THOMPSON: Now, these have not been
20	filed with the data center; is that correct? Perhaps at
21	lunch time you can go down and file them down there.
22	Mr. Vitale, would you like to step to the
23	podium and tell me why I ought to grant your motions?
24	MR. VITALE: Yes, your Honor. First, with
25	respect to the supplemental testimony of Mr. Hackman,
	945

1	questions were asked during the first portion of the hearing
2	by the Commission and by yourself, your Honor, and there was
3	testimony given by several Zoltek witnesses, in particular
4	Mr. Rumy, which was not in his Direct Testimony, about the
5	manner in which service was provided to Zoltek's facility in
6	Missouri Research Park.
7	Mr. Hackman does testify about that to some
8	extent in his direct or I'm sorry his Rebuttal
9	Testimony that was filed last year. We are file asking
LO	leave to file supplemental not so much testimony as drawings
L1	that just clarify the written testimony and respond to
L2	issues raised for the first time by Zoltek in the
L3	proceedings here, and also to answer questions that the
L4	Commission raised to just explain maybe a little better for
L5	the Commission's understanding and your Honor's
L6	understanding about how service was provided to the park.
L7	It's not anything new, it's just clarifying.
L8	And the drawings, I think, just illustrate what's in the
L9	written testimony that's already been filed of Mr. Hackman.
20	And, again, also to clarify and respond to questions that
21	were asked by the Commission and your Honor when the Zoltek
22	witnesses were testifying.
23	JUDGE THOMPSON: Thank you, Mr. Vitale.
24	Mr. May?
25	MR. MAY: From here, your Honor, or from the
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1	podium?
2	JUDGE THOMPSON: Why don't you step up to the
3	podium?
4	MR. MAY: Yes, sir. Your Honor, Complainant
5	had filed the response to the motion to file supplemental
6	testimony of Jeffrey Hackman this morning with his honor.
7	Your Honor, the Respondent relies upon a few
8	sections of the rules, specifically Subsection 8, Subsection
9	17, neither which I believe provide support for their motion
10	to file supplemental.
11	Your Honor, the information that is being
12	asked to the Respondent's asking to supply today, they're
13	suggesting it's designed to clarify some statements that
14	were made by Zoltek witnesses.
15	I first would say that those responses were
16	given to questions posed by responding in cross-examination.
17	Clearly these are things that were contemplated by the
18	Respondent, thus would have had an opportunity at the
19	rebuttal stage.
20	Secondly, and I'm not that familiar with the
21	procedure here, but it would seem to me a little unusual to
22	have a break in the proceedings. We've had I don't
23	recall about a month break in the proceedings. I don't
24	think that that break should be it should be advantage
25	given to Respondent with respect to the break to allow them

1	now, in essence, to go back and respond to the
2	cross-examination testimony.
3	It would seem to me that that would be similar
4	to me, your Honor, based on the cross-examination testimony
5	today of the Union Electric witnesses to come back a month
6	from now and say, your Honor, I want some guys from Zoltek
7	to supply some more information. Your Honor, I don't think
8	that's what Section 8 240.2 I'm sorry dash 2.1308,
9	that is what that's designed to do.
10	It says that a party shall not be precluded
11	from having a reasonable opportunity to address matters not
12	previously disclosed which arise at the hearing. Clearly
13	the electrical system was the subject of much discovery from
14	both sides, was the subject of deposition testimony and it
15	was the subject of cross-examination by Mr. Vitale, so
16	clearly it was not something that's new.
17	And No. 17 240-2.13017, that simply, as I
18	recall, deals with the manner in which additional testimony
19	would be filed, the number of copies, what have you.
20	Clearly it does not serve as a basis for support for this
21	motion. So I would ask the Commission to deny the motion to
22	file supplemental testimony with respect to Mr. Hackman.
23	JUDGE THOMPSON: Now, Mr. May, when was the
24	proposed supplemental testimony provided to you?
25	MR. MAY: Your Honor, I was provided that I
	948

1	opened my mail at about 10:50 on Friday morning and that's
2	when I first saw it, first had any idea about it.
3	JUDGE THOMPSON: And if this testimony were to
4	be admitted, and let's refer specifically to the testimony
5	of Mr. Hackman, in what way do you believe your client would
6	be prejudiced?
7	MR. MAY: Your Honor, I'm glad you brought
8	that up. I should have mentioned that. The way I've
9	understood this process and the way it has operated was that
LO	each side would either I would provide Direct Testimony,
L1	the Respondent was given the opportunity to cross-examine
L2	via deposition my folks, and on that make the Rebuttal
L3	Testimony.
L4	And I also with the Rebuttal Testimony, I
L5	would be able to review it, I was able to take depositions
L6	if I so choose and then provide surrebuttal.
L7	In this opportunity I'm basically going to
L8	have to cross-examination these folks, if you allow this in,
L9	cold. I have not had an opportunity to do any discovery
20	with respect to it.
21	And, again, this is pretty complicated
22	information that he's trying to put into evidence here. I
23	would love to have the opportunity to have Mr. Park, my
24	expert witness, your Honor, or Zoltek's expert witness, to
25	allow him to review this and possibly respond in some

2	Now, Judge, I'm not asking to do that because
3	I think that just complicates the process and runs counter
4	to what this process is about, but I'm saying under the
5	normal way things were done in this case, that's what I
6	would have done with this testimony.
7	JUDGE THOMPSON: Is Mr. Park available?
8	MR. MAY: Your Honor, I've not had a chance to
9	even speak to Mr. Park.
10	JUDGE THOMPSON: He's not here today?
11	MR. MAY: He's not here today.
12	JUDGE THOMPSON: Now, with respect to the
13	proposed testimony of Mr. Hulse, in what respect do you
14	believe the admission of his testimony would prejudice your
15	client?
16	MR. MAY: Your Honor, I'll go get my copy, if
17	I may.
18	JUDGE THOMPSON: You may.
19	MR. VITALE: Your Honor, if I may, I did not
20	speak to the motion with respect to Mr. Hulse. I thought we
21	were just going to take one at a time.
22	JUDGE THOMPSON: I apologize. Why don't you
23	go ahead then, Mr. Vitale, and tell us why we should let
24	Mr. Hulse's testimony in. And then we'll let Mr. May tell

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950 ASSOCIATED COURT REPORTERS 573-636-7551 JEFFERSON CITY, MO

us why we should not. And then we're going to let

573-442-3600 COLUMBIA, MO

2	MS. SHEMWELL: Just Mr. Hackman, thank you.
3	JUDGE THOMPSON: You're only opposed to
4	Hackman; is that correct?
5	MS. SHEMWELL: That's correct.
6	MR. VITALE: Your Honor, Mr. Hulse's testimony
7	is being offered to respond specifically to a question
8	raised by Commissioner Lumpe. I believe you asked the
9	question, but it was her question directed to you at the
10	last hearing that we provide further evidence or evidence of
11	statements, representations, etc., that were made directly
12	to Zoltek by either Missouri Research Park or Union Electric
13	Company. And that's what this affidavit or supplemental
14	testimony is designed to do.
15	I note also that Mr. May has filed a similar
16	type of affidavit for Mr. Rumy, which I didn't get until
17	yesterday afternoon at three o'clock by e-mail just before I
18	left for Jeff City. And I have no objection to that
19	testimony subject if he objects to Mr. Hulse's, I guess I
20	object to Mr. Rumy's, but I think they're both designed to
21	respond to the question of Commissioner Lumpe, so I don't
22	think that really should be an issue, but I gather he does
23	have some objection based on what I saw on my desk when I
24	got here.
25	JUDGE THOMPSON: Thank you, Mr. Vitale.

Ms. Shemwell speak with respect to both areas.

1	Mr. May?
2	MR. MAY: Thank you, Judge. It may just be
3	a with respect to Mr. Hulse, I'd also filed with you this
4	morning a response to the motion to file supplemental
5	testimony of James B. Hulse.
6	Your Honor, maybe it's a question of
7	misunderstanding, but the day we were here and that question
8	was supposed, it was my interpretation of the question that
9	Zoltek had a burden with respect to that particular question
10	to demonstrate, you know, via the previous testimony or new
11	testimony what representations were made to it by either
12	Union Electric or Missouri Research Park.
13	I did not understand that question to mean
14	that Union Electric in some way had to deny that any kind of
15	representations were made to it.
16	And I would say with respect to the affidavit
17	of Mr. Rumy, you will see he references his
18	cross-examination testimony as well as his Direct Testimony.
19	And, again, if you look at I'll call it Subsection 8,
20	I'll reference that again, it talks about new things that
21	have come up.
22	There is nothing in this affidavit in response
23	to Commissioner Lumpe's question that is new material. I
24	just don't think that under either any of the sections that
25	were cited, No. 8, 14 or 17, none of those provide a basis
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т.	for this arridavit to be rifed.
2	JUDGE THOMPSON: Okay. Ms. Shemwell?
3	MS. SHEMWELL: Thank you, your Honor. The
4	Staff is not opposing Mr. Hulse's testimony, because it may
5	be in response to Commissioner Lumpe's question that you
6	presented to the parties and certainly we'll leave that
7	decision to you.
8	But in terms of Mr. Hackman, the Commission
9	has rules regarding supplementation of testimony. I would
10	say that this is, in fact, testimony. There are two
11	exceptions to the rule. If it addresses it says that the
12	parties should not be prohibited from addressing issues that
13	arise at the hearing, but this is not an issue that arose at
14	the hearing, because Mr. Hackman has some testimony about
15	this issue in his filed testimony.
16	I've listed a number of policy reasons that I
17	think that this should not be permitted and that it
18	encourages people to be sloppy in their original work and
19	then to supplement it later, which impairs the ability of
20	the Commission to review it ahead of time as well as other
21	parties.
22	And it creates a problem that the filing of
23	testimony might be able to be supplemented indefinitely.
24	For example, I do feel out of fairness that Mr. May, if he
25	wants to supplement testimony in response to the testimony
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for this affidavit to be filed.

1	here today, should be permitted to do so.
2	In addition, I don't think that the fact
3	there's been a delay in the hearing should be a reason for
4	filing of supplemental testimony. Mr. Hackman's
5	supplemental information does not fall within the two
6	exceptions allowed under the rule under Rule 8 and, in fact,
7	if this were necessary to the Commission's understanding,
8	Mr. Hackman would have filed it with his pre-filed
9	testimony.
10	JUDGE THOMPSON: Does that conclude your
11	remarks?
12	MS. SHEMWELL: It does. Thank you, your
13	Honor.
14	JUDGE THOMPSON: Thank you.
15	Now, Mr. May?
16	MR. MAY: Yes, your Honor.
17	JUDGE THOMPSON: We interrupted you in the
18	middle of a question as to just how you believe your client
19	would be prejudiced admitting the second of these. And I
20	forget which one that was exactly, but perhaps you could
21	come to the podium and remind me.

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Mr. Hulse?

and not the other.

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MR. MAY: Your Honor, is this with respect to

JUDGE THOMPSON: I don't know. We covered one

1	MR. MAY: I would say with respect to
2	Mr. Hulse, I think the same comments, your Honor, being
3	given what is supplemental testimony. And today especially
4	if Mr. Hulse were to testify and testimony to be offered and
5	I have an opportunity to cross-examine him, I did not have
6	an opportunity to really review this material. I was just
7	given it Friday morning. Nor did I have an opportunity to
8	take his deposition or, you know, digest in some way, be in
9	a position to ask intelligent cross-examination questions.
10	I should say informed probably more appropriate, your Honor.
11	JUDGE THOMPSON: I'm sure your questions would
12	be intelligent.
13	MR. MAY: Yes, sir. I should say more
14	informed. But, nonetheless, I think the same way it's
15	prejudiced and hopefully that addresses it.
16	JUDGE THOMPSON: Okay. Now, Mr. Vitale
17	MR. VITALE: Yes, sir.
18	JUDGE THOMPSON: with respect to
19	Mr. Hackman, what issues does the testimony go to?
20	MR. VITALE: Well, your Honor, it goes to a
21	couple things. Well, it goes to one primarily and that is
22	how service was provided to the park over the years.
23	JUDGE THOMPSON: Do you mean the physical
24	arrangements?
25	MR. VITALE: The physical arrangement. Which
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1	contrary to Mr. May's representation, I did not ask
2	questions of Mr. Rumy about that. Mr. Rumy volunteered that
3	information well beyond if your Honor recalls, he was not
4	answering the questions, there was some instructions given.
5	But he went beyond the issue of reliability in
6	his direct testimony and started talking about feeders and
7	other things and how service was provided, which was not in
8	his written testimony, not even in Mr. Park's written
9	testimony, but those issues arose.
LO	Mr. Hackman does address that to some extent
L1	in verbal form, if you will or in written form, in his
L2	written testimony. We're just asking that the that
L3	testimony be supplemented with drawings which Mr. Hackman
L4	can very well, I guess, draw on the board here in redirect.
L5	This is not anything that's a surprise or new
L6	to Mr. May. Mr. May asked these questions during the
L7	deposition. Mr. Hackman offered during his deposition to do
L8	the same drawings for him. I think he may have even done
L9	one at the time. I'm not quite sure. I wasn't at the
20	deposition.
21	But this isn't anything new or a surprise to
22	Mr. May. And, again, it was also some question from the
23	Commission when we were here in January about this precise
24	issue, about how things were tied and how lines came into
25	the park.

1	So, again, we just feel the pictures are maybe
2	a little more illustrative than the words that were already
3	in the written testimony that was previously filed. So it's
4	really not a surprise and there's no prejudice involved.
5	JUDGE THOMPSON: Okay. And with respect to
6	Mr. Hulse, what issues are his testimony directed to?
7	MR. VITALE: Well, your Honor, I can pull out
8	the transcript from the first time, but I very clearly
9	understood the question to be from your Honor again, but the
10	question was from Commissioner Lumpe as to what evidence is
11	there from the parties. Not that Zoltek was the only one
12	allowed to come in and talk about what testimony
13	JUDGE THOMPSON: This was representations,
14	promises
15	MR. VITALE: Representations, statements, what
16	was said directly to Zoltek. Because a lot of the testimony
17	was Zoltek's reading of this contract that they weren't a
18	party to.
19	So as I understood it, the parties were to
20	respond with evidence about what that statement what
21	those statements were and representations, however the
22	question was phrased, and what evidence is it from both
23	sides. I don't think it's fair for one side to come in and
24	say, Here's the evidence of what there was and not for me to
25	be to respond to the same question.

1	JUDGE THOMPSON: Okay. Mr. May?
2	MR. MAY: Your Honor, just to briefly if I
3	may just do this from here, with respect to my alleged
4	representations about questions posed to Mr. Rumy by
5	Mr. Vitale, I never made that representation.
6	I was simply looking at the motion to file
7	Supplemental Rebuttal Testimony of Mr. Hackman. It says in
8	the paragraph 2, During the first three days of the hearing
9	testimony was offered by various witnesses on behalf of the
10	Complainant.
11	I assumed that these answers or this
12	supplemental testimony was to address apparently the
13	responses of these various witnesses. So I never made the
14	representation that this was being filed indirectly in
15	response to Mr. Vitale's questions of Mr. Rumy.
16	The other thing, your Honor, is that there was
17	some comment about this is not a surprise. And, your Honor,
18	exactly right. To the extent that I did ask questions in
19	cross-examination, these are things that were at the
20	disposal of the Respondent. They could have easily included
21	this in the Rebuttal Testimony.
22	And it gets us back, I think, to
23	Ms. Shemwell's point about whether you need to get a second
24	chance, in other words, to include things that you may not
25	have put in when you knew they might be relevant at the
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2	JUDGE THOMPSON: Okay.
3	MR. VITALE: And, your Honor, I've just pulled
4	out the transcript from this is now back to Mr. Hulse.
5	This is on page 849 from January 24. Your question and
6	you say, She's given me her question, I'm going to
7	address it generally because I don't know if this witness
8	can answer this question, but she wants an answer to the
9	question and I don't care who provides it, but I'd sure like
10	to see it and so would she.
11	And you then ask the question. Perhaps
12	counsel would do best to deal with that question and bring
13	us an answer when you come back on the 14th. Everyone's got
14	a good chance to look through all the thousands of sheets of
15	papers.
16	JUDGE THOMPSON: What was the question asked?
17	MR. VITALE: The question was, What is the
18	evidence, if any, of promises, representations, agreements,
19	whatever you want to say, made directly to Zoltek, whether
20	by Ameren or by the University, with respect to the
21	reliability of the power supply?
22	And I certainly understood that, your Honor,
23	as being addressed to all the parties, not just Zoltek.
24	JUDGE THOMPSON: Very well. I'm going to
25	grant the motion.

time.

959 ASSOCIATED COURT REPORTERS

573-636-7551 JEFFERSON CITY, MO 573-442-3600 COLUMBIA, MO

1	MR. VITALE: And and I'm sorry. Go
2	ahead.
3	JUDGE THOMPSON: If you want to interrupt me
4	now
5	MR. VITALE: No.
6	MR. MAY: Let him go, Judge.
7	MR. VITALE: It said more on the next page,
8	but
9	JUDGE THOMPSON: I'm going to grant the motion
10	to file Supplemental Rebuttal Testimony of James B. Hulse.
11	It is, as you say, a matter of fundamental fairness that
12	both sides, all parties get to address the issue of what
13	representations, promises and agreements and the like there
14	were. Of course, you'll still have to offer it when the
15	time comes through your witness and you'll get it into the
16	record at that point.
17	With Mr. Hackman, it seems to me the matter is
18	somewhat different. I'm concerned because the testimony is
19	highly technical and Mr. May has not had an opportunity to
20	review it with his expert to determine whether it's accurate
21	or inaccurate, anything of that sort. And so, consequently,
22	I believe at this point I have no option but to deny the
23	motion to file the Supplemental Rebuttal Testimony of
24	Mr. Hackman.
25	Now, if through cross-examination, questions

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- 2 obviously free territory. We don't know where these cases
- 3 are going to go with respect to these things, so this
- 4 information in part or completely may yet find its way into
- 5 the record, but I am going to have to deny the motion to
- 6 file Supplemental Rebuttal Testimony at this time.
- 7 Sir?
- 8 MR. MAY: Yes, sir.
- 9 JUDGE THOMPSON: Do you have anything else to
- 10 take up at this time?
- 11 MR. MAY: Yes, your Honor. I have a letter
- 12 dated March 4, 2002 directed to you. And it's a cover
- 13 letter in regard to the affidavit of Mr. Rumy, which is
- 14 directly in response to Commissioner Lumpe's question we've
- 15 previously discussed.
- 16 JUDGE THOMPSON: Has this been provided to
- 17 Mr. Vitale?
- MR. MAY: It has.
- JUDGE THOMPSON: When was that?
- 20 MR. MAY: It was provided yesterday via e-mail
- 21 and a hard copy today.
- JUDGE THOMPSON: And I'm trying to
- 23 understand -- obviously we're not supplementing testimony.
- 24 Mr. Rumy has already testified.
- MR. MAY: Yes, sir.

1	JUDGE THOMPSON: So exactly what is it we're
2	doing? Adding an exhibit to the record?
3	MR. MAY: Well, your Honor, this is a cover
4	letter that I had e-mailed to you as well yesterday.
5	JUDGE THOMPSON: Correct.
6	MR. MAY: The affidavit of Mr. Rumy, again, in
7	response to Commissioner Lumpe's question, I simply point
8	out the places in his Direct Testimony which he believes is
9	responsive to her inquiry.
10	And I also point out page 132 of the
11	transcript in this matter, which was heard last month,
12	where during his cross-examination testimony where he
13	discusses this as well. This is the hard copy of the actual
14	original affidavit signed by Mr. Rumy and notarized.
15	And then, lastly, under the cover letter of
16	March 4th to you, I've included a chart that was prepared by
17	Mr. Moran. This is, in essence, a continuation of his
18	previous chart that he had I believe was Exhibit 19, as I
19	recall.
20	JUDGE THOMPSON: Okay.
21	MR. MAY: This is a continuation, but going
22	backwards.
23	JUDGE THOMPSON: But isn't this chart, in
24	fact, the late-filed exhibit that I requested
25	MR. MAY: Yes, your Honor. It's directly
	962 ASSOCIATED COURT REPORTERS

1	responsive
2	JUDGE THOMPSON: the effect on production?
3	MR. MAY: Yes, it is. It's directly
4	responsive to your inquiry, so I was simply letting you know
5	that we've complied with both your request as well as
6	Commissioner Lumpe's.
7	JUDGE THOMPSON: Very well. Let's take up the
8	late-filed exhibit first, which was specifically requested.
9	Do we have any objections to the late-filed exhibit?
10	MR. VITALE: I guess I would, your Honor, just
11	to the extent that this was a request made over a month ago.
12	I spoke to Mr. May I don't know if it was Wednesday or
13	Thursday of last week and he told me he wasn't going to be
14	preparing the exhibit and filing it, so I was kind of
15	surprised yesterday afternoon at two o'clock or so to get
16	the exhibit, which I didn't think was going to be coming.
17	So I really haven't had an opportunity to really look at it
18	very closely since I left my office shortly after.
19	Secondly, I specifically recall discussing
20	with Mr. May and it may be on the record, I haven't had a
21	chance to go back to the transcript. When the request for
22	the exhibit was made, we talked a lot about the supporting
23	documents and I asked Mr. May to provide when he provided
24	the exhibit this is back in January I asked him to
25	provide the supporting material so that we could see what it

1	was, because we both agreed there's been a lot of documents
2	produced in the case and we're both somewhat latecomers.
3	Both of us got into this case after it had proceeded.
4	When I got the exhibit yesterday, as I said, I
5	was surprised to even get it. There's a reference to a
6	study of some sort, a 1997 impact analysis. As soon as I
7	got the e-mail and saw it, I e-mailed Mr. May back and asked
8	him to identify the underlying documents and bring them with
9	him today.
LO	I don't know if he even got my e-mail or not
L1	late yesterday afternoon when I got his, but I have not seen
L2	the underlying documents, so I'm a little bit at a loss
L3	because I understand the exhibit was requested by the
L4	Commission and we even reserved, I think, a number for it.
L5	JUDGE THOMPSON: That's correct. Number 24.
L6	MR. VITALE: But getting it at 2:00 or so
L7	yesterday afternoon by e-mail when I understood, as late as
L8	the end of last week, that it wasn't going to be prepared is
L9	kind of a surprise. And I haven't had a chance to see the
20	underlying documentation, which would have given me a chance
21	to maybe provide something else today. I don't know. I
22	just haven't had a chance to really look at it.
23	JUDGE THOMPSON: I understand, Mr. Vitale.
24	Mr. May, do you want to respond?
25	MR. MAY: Yes, your Honor. I would say that
	964

2	exhibit. Mr. Vitale and I had a conversation, I'd have to
3	look at my notes at work, my billing sheets, to see when it
4	occurred. But in that conversation we discussed I
5	discussed with him the manner or the method by which I would
6	comply with your request.
7	I explained to him that I had some found
8	documents, there were a lot of documents, and that it would
9	be difficult for me alone to compile those. I just don't
10	have the time. We're a small firm, I'm one person.
11	However, he had mentioned that Mike Moran had
12	done, he thought, a commendable job with respect to the
13	creation of Exhibit 19. And, as I recall, he didn't have
14	any problem with Mr. Moran doing that. I contacted
15	Mr. Moran, he said yes, I can do that, I can work backwards.
16	It took him a few days obviously to compile the information.
17	So as to his surprise, I mean, obviously I'm
18	saying there must be a miscommunication or misunderstanding
19	that I never represented I was not going to file such a
20	document. I told him, in fact, I was going to have some
21	trouble getting some of that together.
22	With respect to the supporting documents, and
23	if you check the transcript from the previous hearing, your
24	Honor, I responded to data requests. These things this
25	information was requested, I sent it. And I don't really
	965

apparently there's a misunderstanding with respect to this

2	JUDGE THOMPSON: Mr. May, if Mr. Moran was
3	here, for example, he could be cross-examined as to what did
4	he look at in preparing the exhibit, why did he rely on
5	it
6	MR. MAY: Sure.
7	JUDGE THOMPSON: that sort of thing.
8	Correct?
9	MR. MAY: That's correct. Like I say,
10	Mr. Vitale has the information from which it was derived. If
11	there wants to be if he wants a continuance and Mr. Moran
12	to come testify, he can go over those documents with him,
13	but Mr. Moran's not on the schedule today, your Honor.
14	JUDGE THOMPSON: I understand that.
15	Here's what we're going to do. This is an
16	exhibit that the Commission asked for. And we only asked
17	for it because we thought it was important and most helpful
18	towards determining this matter.
19	First of all, let me say that when I was on
20	the other side of the bar practicing law, that there was a
21	judge who had occasion to tell me that thank God there were
22	deadlines or no lawyer in the world would ever do anything.
23	Clearly when you're submitting something to
24	the agency, the later that you supply it to your opponent,
25	then the more likelihood there is of prejudice. When
	066

understand why I have to be --

573-442-3600 COLUMBIA, MO

2	a chance to review it with my expert, haven't really had a
3	chance to look at it, then that raises serious concerns
4	about fairness, notice, things of that sort. So I would
5	urge the parties in the future to try to do things sooner
6	rather than later regardless of when the deadline might
7	actually be.
8	We will put off until later the receipt of
9	this late-filed exhibit.
LO	Now, Mr. Vitale, do you have experts with you
L1	today?
L2	MR. VITALE: Not retained experts.
L3	JUDGE THOMPSON: Not retained. What I'm
L4	getting at is do you have anyone with you of sufficient
L5	expertise that you can review the late-filed exhibit and see
L6	if it at least passes what we call the straight-face test?
L7	MR. VITALE: Probably. Again, your Honor,
L8	though I guess the more important thing for me was getting
L9	the underlying documents. And to just say there's been a
20	lot of data requests
21	JUDGE THOMPSON: I understand.
22	MR. VITALE: If I had that, which is I think
23	the source, it's not the summary that just reports on what
24	the source document is. I believe it's just one document.
25	JUDGE THOMPSON: Okay.
	967

someone tells me, Well, I just received this, I haven't had

1	MR. VITALE: But to say I've got a lot of
2	documents and I should have been able to find it, I don't
3	even know what it is.
4	JUDGE THOMPSON: Well, I'm going to give you,
5	as I say, some time to review it. We're scheduled to be
6	here tomorrow as well. Perhaps you can review it this
7	evening.
8	MR. VITALE: And, again, your Honor, I've
9	looked at the exhibit. It's the underlying document.
10	Do you have that?
11	MR. MAY: I don't have those documents, your
12	Honor
13	JUDGE THOMPSON: Okay.
14	MR. MAY: with me.
15	MR. VITALE: Do you know what the volume if
16	I may, your Honor? I'm sorry. I didn't mean to
17	JUDGE THOMPSON: Why don't we take 10. I need
18	some more coffee anyway.
19	(A RECESS WAS TAKEN.)
20	JUDGE THOMPSON: What I'd like you to think
21	about, Mr. Vitale, is what is necessary to purge the
22	unfairness, the prejudice that you perceive in the receipt
23	by the Commission of late-filed Exhibit 24.
24	As I said, we're going to put off the actual
25	receipt of that, give you a chance to look it over, talk

1	about it with the folks you have here with you. But it
2	strikes me that you might very well want a chance to
3	cross-examine Mr. Moran or perhaps depose him or something
4	of that sort. I will allow you to come up with what it is
5	you'd like to do and then you can just present that as a
6	motion. Is that acceptable?
7	MR. VITALE: Yes, your Honor.
8	JUDGE THOMPSON: Okay. Very good.
9	MR. MAY: Your Honor, if I may just point out
10	that Mr. Moran would be more than happy to be deposed with
11	respect to the production of this document. I have to
12	caution Mr. Vitale that Mr. Moran was not I don't even
13	believe was employed by Zoltek during this time, but he was,
14	to me, the best source as far as knowledge.
15	JUDGE THOMPSON: I understand.
16	MR. MAY: Also, your Honor, this came from
17	information and I will reiterate this. I'll be glad when
18	I get back to the office, to go through and provide it
19	again, but the information here was provided previously.
20	JUDGE THOMPSON: Very well.
21	MR. MAY: I just want to be clear about that.
22	MR. VITALE: And I can respond right now, your
23	Honor, to what I would need. And this is what we've been
24	trying to hash out unsuccessfully during the break. To say
25	you've got a lot of documents, it's in there, frankly I

1	don't want to take Mr. Moran's deposition. I understand
2	he's just summarizing other documents. I just want to know
3	specifically what those other documents are so I can
4	understand them. These are Zoltek's documents and that's
5	all I ask for.
6	JUDGE THOMPSON: I understand. Perhaps you
7	can address a data request to Mr. Moran. At any rate, I'll
8	leave it to you to tell me what it is exactly you want to do
9	and if you so request, we can leave the record open at the
LO	conclusion so that we can undertake whatever that might be.
L1	Okay?
L2	MR. VITALE: Thank you, your Honor.
L3	JUDGE THOMPSON: You know, a difficult thing I
L4	think for any litigator here to deal with are the exhibits
L5	that the Commission requests, because you don't know what
L6	they're going to be and certainly you have to have an
L7	opportunity to review those and to make whatever response
L8	you think is necessary.
L9	Okay. Now that we have all that taken care
20	of
21	MR. MAY: Your Honor
22	JUDGE THOMPSON: we're still dealing with
23	the affidavit, I believe, of Mr. Rumy.
24	MR. VITALE: And I have no objection to that,

970
ASSOCIATED COURT REPORTERS
573-636-7551 JEFFERSON CITY, MO

25

your Honor.

1	JUDGE THOMPSON: In that case
2	MR. VITALE: You weren't offering the letter.
3	MR. MAY: I'm not offering it. It's just a
4	cover letter.
5	JUDGE THOMPSON: We don't need the letter.
6	That's just telling me attached please find the affidavit of
7	Mr. Rumy. Right?
8	MR. MAY: Yes, your Honor. Your Honor, is it
9	marked as an exhibit in light of the fact it was response to
10	a question from the Commission?
11	JUDGE THOMPSON: We will mark the affidavit of
12	Mr. Rumy as Exhibit No. 31. And I understand that you are
13	offering that exhibit, Mr. May.
14	Do I hear any objections to the receipt of
15	Exhibit 31, the affidavit of Mr. Rumy?
16	MR. VITALE: No, your Honor.
17	JUDGE THOMPSON: Ms. Shemwell?
18	MS. SHEMWELL: No, your Honor. Thank you.
19	JUDGE THOMPSON: Exhibit 31 is received and
20	made a part of the record of this proceeding.
21	(EXHIBIT NO. 31 WAS MARKED FOR IDENTIFICATION
22	AND RECEIVED INTO EVIDENCE.)
23	JUDGE THOMPSON: Do we have copies of
24	Exhibit 31 for the Commission?
25	MR. MAY: Your Honor, I will provide it. I
	971 ASSOCIATED COURT REPORTERS

1	have to unsta	aple them.
2		JUDGE THOMPSON: Okay. Very well.
3		In that case, are we ready for Mr. Carr?
4		MR. VITALE: Yes, your Honor.
5		JUDGE THOMPSON: William J. Carr.
6		(Witness sworn.)
7		JUDGE THOMPSON: Thank you, sir. Please take
8	your seat and	a say your name for the reporter
9		THE WITNESS: My name is William J. Carr,
10	C-a-r-r.	
11		JUDGE THOMPSON: Thank you, sir.
12		You may inquire, Mr. Vitale.
13		MR. VITALE: Thank you, your Honor.
14	WILLIAM J. CA	ARR testified as follows:
15	DIRECT EXAMIN	NATION BY MR. VITALE:
16	Q.	Mr. Carr, by whom are you employed?
17	Α.	I'm employed by Ameren Corporation.
18	Q.	And in what capacity?
19	Α.	I'm vice president energy delivery in the
20	customer serv	rices function.
21		MR. VITALE: Off the record.
22		(AN OFF-THE-RECORD DISCUSSION WAS HELD.)
23	BY MR. VITALE	<b>:</b> :
24	Q.	Mr. Carr, you have your Rebuttal Testimony

before you and that's marked as Exhibit 11, is that correct,

25

- on the bottom right? I think I handwrote that. That's not
- the official copy, but it's Exhibit 11.
- 3 MR. VITALE: I think we can stipulate to that,
- 4 Mr. May, Exhibit 11?
- 5 MR. MAY: Yes. Sorry.
- 6 BY MR. VITALE:
- 7 Q. And is that your signature on the affidavit to
- 8 that testimony?
- 9 A. Yes, it is.
- 10 Q. Okay. Do you have any corrections or changes
- 11 to make to the testimony you signed and prepared in
- 12 September 2001?
- 13 A. I do not.
- Q. Okay. And are the answers true and complete,
- 15 to the best of your knowledge?
- 16 A. Yes, they are.
- 17 Q. If I were to ask you the same questions here
- 18 today, would your answers be the same?
- 19 A. Yes, they would.
- MR. VITALE: I'd offer Exhibit 11, your Honor.
- 21 JUDGE THOMPSON: Do I hear any objections to
- the receipt of Exhibit No. 11?
- MR. MAY: No objection, your Honor.
- MS. SHEMWELL: No objection.
- 25 MR. VITALE: I tender the witness for

- 1 cross-examination.
- 2 JUDGE THOMPSON: Thank you. Exhibit 11 is
- 3 received and made a part of the recording of this
- 4 proceeding.
- 5 (EXHIBIT NO. 11 WAS RECEIVED INTO EVIDENCE.)
- 6 JUDGE THOMPSON: Mr. May, you may inquire.
- 7 MR. MAY: Thank you, Judge.
- 8 CROSS-EXAMINATION BY MR. MAY:
- 9 Q. Morning, Mr. Carr.
- 10 A. Good morning.
- 11 Q. Good to see you again.
- 12 A. Thank you. Same here.
- 13 Q. With respect to your Rebuttal Testimony, did
- 14 you prepare this testimony?
- 15 A. Yes, I did.
- 16 Q. These are the questions you posed or were they
- 17 posed to you?
- 18 A. I provided a narrative of information
- 19 connected with the Zoltek issue and questions were formed
- 20 with the support of legal counsel.
- Q. Okay. So what you're saying is -- if I
- 22 understood your answer then, the attorney actually took your
- 23 narrative and broke it down to question/answer form?
- 24 A. That's correct.
- Q. On page 2 of your testimony, line 14, if I

1	could direct your attention to that, please, do you see that
2	there?
3	A. Yes, I do.
4	Q. With respect to the answer, you mention that
5	despite AmerenUE's best efforts. What were those best
6	efforts that AmerenUE made? And, again, this is in response
7	to a question about resolving Zoltek's complaints. Do you
8	see that?
9	A. Yes, I see it. Since the time frame of the
LO	early '90s when I first became aware of complaints from
L1	Zoltek, there was on occasion dialogue between myself and
L2	the district manager and some of the support staff in the
L3	Wentzville district involving, for example, a review of the
L4	information supplied by Zoltek as to occurrences in their
L5	plant, comparisons to our substation equipment, trying to
L6	match those activities.
L7	I had numerous discussions off and on over a
L8	period of about, I guess, eight, nine years with Mr. Hulse
L9	generally informing $\operatorname{me}$ of a variety of meetings at different
20	times with Zoltek people.
21	Q. Well, let me if I may interrupt you for a
22	second. Let's go to the bottom of page 2, because one of

the -- your next question was, What actions --24 MR. VITALE: Your Honor, if I may --

25 JUDGE THOMPSON: Excuse me.

23

975

1	MR. VITALE: I'm going to object. Mr. May
2	asked a question, the witness was in the course of
3	responding to it, didn't finish his answer and then Mr. May
4	wants to move on or change his question and I think
5	Mr. Carr's entitled to finish his answer.
6	JUDGE THOMPSON: Okay. Hang on a moment.
7	MR. MAY: I believe he was finished, your
8	Honor, but if I'm wrong, he may finish. I have no problem
9	with that.
10	MR. VITALE: I believe he was in mid-sentence,
11	but if he says he's finished, that's fine.
12	THE WITNESS: No, I wasn't finished.
13	JUDGE THOMPSON: Please finish your answer,
14	sir.
15	THE WITNESS: I commented over a period of
16	years discussions with district people, Mr. Hulse
17	specifically, people in St. Louis, engineering people,
18	support people talked about ways in which we could try to
19	identify some of the differences between our records and
20	Zoltek's records over the years that that log had been
21	accomplished. Those were some of them, not all. It's not
22	all inclusive, but at least some of those were ways in which
23	we tried to identify, discuss and implement things that
24	might tend to alleviate the condition.
25	BY MR. MAY:

1 Q	. On	page	2,	line	21	you	see	that	there	in	your
-----	------	------	----	------	----	-----	-----	------	-------	----	------

- 2 answer, Actions taken included?
- 3 A. Yes. Uh-huh. Yes, sir.
- 4 Q. You mention many meetings with Zoltek. Do you
- 5 see that?
- A. Yes, sir.
- 7 Q. Would that be the meetings you just referenced
- 8 in your previous answer?
- 9 A. That is correct.
- 10 Q. Okay. And, again, though what was done at
- 11 those meetings to specifically, as you say, identify the
- 12 root cause of their complaints?
- 13 A. Well, I don't have the letters in front of me
- 14 to make reference, but there were a number of different
- 15 discussions evolving around the outages, their cause, how to
- 16 get at identifying them. You heard from Mr. Bradley earlier
- and he was brought on board or asked to do some
- investigative activity for this problem in the industrial
- 19 park.
- 20 There were additional activities that we went
- 21 through with respect to meeting with the park owners, looked
- 22 at our facilities, generally took an engineering perspective
- and tried to identify ways in which we could first identify
- the problem and how to resolve it.
- Q. Okay. And did you identify the problem?

1	_	
1	Α.	No.

- 2 Q. So you're saying there was not a problem?
- 3 A. No. I didn't say that. I said there
- 4 obviously was a problem from the customer's perspective. We
- 5 had difficulty ascertaining whether it was from us or within
- 6 the company itself.
- 7 Q. You had mentioned there on page 2, line 22
- 8 talking about advancing the upgrade of the Weldon Springs,
- 9 it goes on to the next page, substation?
- 10 A. Yes.
- 11 Q. When was that done?
- 12 A. I'm going to guess somewhere in the 1994 time
- 13 frame, without --
- Q. Well, if I were to tell you February '95, does
- 15 that sound accurate?
- 16 A. That could very well be.
- 17 Q. Okay. And isn't it true that, in fact, though
- 18 the advancement of that upgrade was nothing more than an
- 19 appeasement move to Zoltek?
- 20 A. That's correct.
- 21 Q. In fact, you didn't believe it would have any
- 22 effect on their problem at all, did you?
- 23 A. The effect would have been minimal at best.
- Q. So when you, in your response, say what
- actions were taken, your question on page 2, by AmerenUE in

1	an	effort.	to	improve	t.he	quality	and	reliability	v of

- 2 service -- you see your question there, line 18 through 20?
- 3 You see that?
- 4 A. Yeah.
- 5 Q. You then say, Actions taken included, one of
- 6 which was, advancing the upgrade of Weldon Springs. You see
- 7 that?
- 8 A. Yes.
- 9 Q. So that's not entirely accurate. In fact, the
- 10 advancing of the upgrade was not designed to improve the
- 11 quality or reliability of service, but, in fact, was
- designed simply to appease Mr. Rumy and/or Zoltek?
- 13 A. Not totally. I disagree with that
- 14 characterization only to Mr. Rumy and Zoltek.
- 15 Q. Okay. Well --
- 16 A. Upgrading that substation had the impact of
- 17 putting us in a position of serving all of our customers
- 18 served out of the Weldon Springs substation. And when we do
- 19 that, of course, in my judgment, that makes the station far
- 20 more capable of dealing with growth and activities that if
- 21 were unattended, would have some impact on reliability as a
- 22 whole.
- 23 Q. You recall when I took your deposition on
- 24 May 25th of 2001?
- 25 A. I remember the deposition. I can't tell you I

- 1 remember the date.
- 2 MR. MAY: Your Honor, may I approach the
- 3 witness?
- 4 JUDGE THOMPSON: You may approach.
- 5 Thank you.
- 6 BY MR. MAY:
- 7 Q. Mr. Carr, I've handed to you what is a copy of
- 8 your -- certified copy of your May 25th, 2001 deposition; is
- 9 that correct?
- 10 A. Uh-huh. Yes, sir.
- 11 Q. I'm sorry. And I believe you said you recall
- the deposition being taken. Correct?
- 13 A. Yes.
- 14 Q. Turn on page 37, if you would, please,
- specifically line 21.
- JUDGE THOMPSON: What page did you say?
- MR. MAY: Page 37, Judge, line 21.
- JUDGE THOMPSON: Thank you.
- 19 THE WITNESS: I see that.
- 20 BY MR. MAY:
- 21 Q. The question there on line 21, Now, on the
- 22 Weldon Springs substation, has that work been completed, the
- 23 updating of that station?
- 24 Your answer on line 23, I think Weldon Springs
- has been fully updated yes.

1	Question: Do you know in your letter you
2	talk about February of '95. When actually was that work
3	completed?
4	This is on page 38 at the top. Do you see
5	that?
6	A. Yes, sir.
7	Q. Okay. On page 38, line 2 the answer, I can't
8	answer that question specifically. The substation was ready
9	for upgrade and was to be in, like, mid-'95 which meant that
10	all the orders placed for the equipment to go into that
11	station in that close-end date was already on order and we
12	expedited.
13	And I did request the expediting of some of
14	that equipment since it was already in the production stage
15	to try to put that station into an early time frame of
16	upgrade, but, frankly, three or four months, if you want my
17	honest opinion, that it was appeasement move because the
18	production was already coming off the production line and we
19	had already had a plan to start that work in mid-1995, I
20	think. It was not a big stress to try to accommodate that.
21	It ends on 10 15. Do you see that?
22	A. Yes, sir.
23	Q. And that was your testimony that day. Right?
24	A. Yes, sir.
25	Q. I believe in your answer on page 38 you talk
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1	about	thiq	equipment.	Weldon	Springs	พลร	already	nlanned
Τ.	about	CIII	equipment.	METGOII	Sprinds	was	alleady	pramieu

- 2 for an upgrade; is that correct?
- 3 A. Yes, sir.
- 4 Q. And it was not in response to Mr. Rumy or
- 5 Zoltek's problems, was it?
- 6 A. I think -- my recollection is the revamping of
- 7 that substation was commonly known and we were asked whether
- 8 or not we could expedite that to an earlier date. And I
- 9 believe we did that merely by trying to push the date of the
- in-service, so the beginning of that job from mid-year to
- 11 February of that year.
- 12 MR. MAY: Your Honor, I'm going to ask his
- 13 response be stricken. It wasn't responsive to the question
- 14 I asked him.
- 15 MR. VITALE: The question's been asked and
- 16 answered. He answered it before Mr. May read the deposition
- 17 testimony. The deposition testimony he read is not
- inconsistent with his earlier testimony. And then he's
- 19 asked the question really a third time. He got his
- deposition question in. There's no inconsistency here.
- 21 He's already answered the question.
- MR. MAY: Your Honor, I was simply going to
- 23 say that I've read that. I think it sufficiently impeached
- 24 his testimony with respect to the appeasement move. I'm now
- asking him specifically about the Weldon Springs substation,

- 1 whether the actual implementation of that was done in
- 2 response to Zoltek's problem. Not the speeding up of it,
- 3 but the actual implementation of the upgrade.
- 4 JUDGE THOMPSON: Objection's overruled.
- 5 Please proceed.
- 6 BY MR. MAY:
- 7 Q. Let me rephrase the question. That was kind
- 8 of confusing. But with respect to the upgrading of the
- 9 Weldon Springs substation, again, looking at your response
- on page 38, isn't it true that that work had been planned
- 11 for some time?
- 12 A. Yes
- Q. And isn't it also true that that work, the
- 14 upgrading, was not directly in response to Zoltek's
- 15 problems?
- 16 A. The advancement was in direct response to
- 17 Zoltek's inquiry about advancing the station.
- 18 MR. MAY: Your Honor, again, I object. The
- 19 answer's not responsive. It was a yes or no question,
- 20 Judge.
- 21 JUDGE THOMPSON: Objection overruled. Please
- 22 proceed.
- 23 BY MR. MAY:
- Q. Now, again, with respect to the upgrading of
- 25 the Weldon Springs substation, was there any advantage to

1		-1-2 4-1-			1 3 - 1- 3 1 3 4		Additional and the second
1	customers	with	respect	tο	reliability,	any	aistinct

- 2 advantage?
- 3 A. No. I don't believe there would be.
- Q. Let's continue on. And, again, we're on
- 5 page 3 of your testimony, line 1, which is still in response
- 6 to the question on the previous page about what action was
- 7 taken. And this is your testimony.
- 8 A. Page 3?
- 9 Q. Yes.
- 10 A. Line?
- 11 Q. Line 1. And, again, we're talking about what
- 12 actions that you allege were taken by Union Electric to
- 13 respond to Zoltek's problems. And on page 3 you talk about
- 14 attempting numerous upgrades on our systems -- system. You
- 15 see that?
- A. Yes, sir.
- 17 Q. Okay. What were those numerous upgrades?
- 18 A. Well, I believe one, if I remember correctly,
- 19 was a recloser installation that came up, which would have
- 20 been a piece of equipment on our system outside of Weldon
- 21 Springs substation, which would allow for sensing faults on
- our system in an attempt to merely quicken whatever response
- time we could make in the event such a fault would occur, if
- 24 it occurred.
- I also made mention in here the power quality

-											
1	engineering	team.	which	18	a	service	at.	no	charge	t.o	the

- 2 customer that we encourage our customers to utilize when we
- 3 are seeing problems and we can't exactly identify the
- 4 particular reason for the problem, but we know there is one
- 5 or the customer tells us there is one.
- 6 And we bring people in to investigate with the
- 7 engineering people of the company, looking at the problem,
- 8 trying to identify how equipment is or is not working up to
- 9 its capacity or lack of it and trying to develop a response
- 10 to answer why those things are occurring.
- 11 Q. Okay. With respect to the upgrades, let's
- 12 focus on that for a minute. You had mentioned, I believe in
- your answer, the 400-amp recloser?
- 14 A. That's correct.
- 15 Q. And was that designed to minimize exposure to
- the feeder serving the Research Park?
- 17 A. It was certainly designed to help cut down any
- 18 fault on our system that would affect the service to the
- 19 Research Park, yes.
- 20 Q. I don't want to argue with you, because I'm a
- 21 little confused. My question was, was that designed to
- 22 minimize exposure to the feeder serving the Research Park?
- 23 A. No, it would not minimize the exposure. It
- 24 would merely allow for a more rapid restoration of service.
- MR. MAY: May I approach your Honor?

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1	JUDGE	THOMPSON:	You may.

- 2 MR. MAY: Your Honor, I'd like to have this
- 3 marked as an exhibit, if I may.
- 4 JUDGE THOMPSON: You may. Letter of Mr. Carr
- 5 to Mr. Rumy?
- 6 MR. MAY: Yes, sir. I'll have him identify
- 7 it, if you'd like, first.
- JUDGE THOMPSON: Sure.
- 9 BY MR. MAY:
- 10 Q. Mr. Carr, I've handed to you what appears to
- 11 be a May 27th, 1994 letter from you to Mr. Rumy. Do you
- 12 have that in front of you?
- 13 A. Yes, I do.
- JUDGE THOMPSON: We'll go ahead and mark that
- 15 as Exhibit No. 32.
- 16 BY MR. MAY:
- Q. Look at No. 2 -- what is identified as
- 18 paragraph 2. Do you see that?
- 19 A. Yes, sir.
- 20 Q. I'm going to read from that and you tell me if
- 21 it's an accurate reading. We will install a 400-amp
- 22 recloser just outside the substation serving the Research
- 23 Park to minimize exposure to the feeder serving the Research
- 24 Park.
- Do you see that?

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- Q. Is that accurate what I just read?
- 3 A. Bad choice of words on my part.
- 4 Q. So what you're saying is that -- if I'm
- 5 understanding this, are you saying that your letter to
- 6 Mr. Rumy, May 27 ,'94, was inaccurate with respect to that?
- 7 A. I did not put the right connotation on the use
- 8 of that equipment, correct.
- 9 Q. Now, was that done -- the 400-amp recloser,
- 10 was that done in an effort to increase reliability?
- 11 A. I believe it was, but I cannot say that for
- 12 absolute assurance.
- 13 Q. In fact, wasn't it simply an effort to again
- 14 appease Mr. Rumy?
- 15 A. I thought it would have minimal impact, but at
- 16 the point that those discussions were taking place, it
- 17 seemed that anything we could do that might have any impact
- 18 at all would be worth making a serious attempt at
- 19 accomplishing.
- 20 Q. Okay. Let's look at your deposition again,
- 21 page 42.
- JUDGE THOMPSON: Before we go too much
- 23 farther, Mr. May, do you have copies of Exhibit 32 for the
- 24 Commissioners?
- MR. MAY: Yes, sir, I do.

- 1 JUDGE THOMPSON: You can just hand them all to
- 2 me. Thank you, sir.
- 3 (EXHIBIT NO. 32 WAS MARKED FOR
- 4 IDENTIFICATION.)
- 5 BY MR. MAY:
- 6 Q. Okay. Mr. Carr, I had asked to you look at
- 7 page 42 of your deposition testimony. Do you see line 19
- 8 there?
- 9 A. Yes, I do.
- 10 Q. I'm going to read this and you tell me if I've
- 11 read it correctly.
- 12 Question: Was this an attempt by you to
- increase the reliability of the service to the park?
- 14 Answer: No. It was an attempt to appease
- 15 Mr. Rumy.
- 16 Do you see that?
- 17 A. Yes, I do.
- 18 Q. Okay. Now, on page 3 of your testimony,
- 19 line 20, do you see that?
- 20 A. Yes, sir.
- 21 Q. I guess I should step up to 13. The question
- there that you're answering pertains to Zoltek's
- 23 cooperation; is that correct?
- A. You're on page 3?
- Q. Yes, sir. Line 13 is the question.

1 A. All right.
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- Q. And is that correct, it's about Zoltek's
- 3 cooperation?
- 4 A. Yes, sir.
- 5 Q. Okay. Your answer on line 20, With Zoltek,
- 6 our access to their plant was extremely limited. In fact,
- 7 it took a court order to ultimately get the access we are
- 8 usually given voluntarily.
- 9 Do you see that sentence?
- 10 A. Yes, I do.
- 11 Q. Okay. Again, I want you to look at Exhibit
- No. 32, which is the May 27th, 1994 letter. Do you see
- 13 that, sir?
- 14 A. Yes.
- 15 Q. Look at No. 1. It mentions that we will
- 16 reinstall the power monitor at the plant location. Do you
- 17 see that?
- 18 A. Yes, sir.
- 19 Q. So I'm assuming by your use of the word
- 20 "reinstall," that it had previously been installed.
- 21 Correct?
- 22 A. Yes.
- 23 Q. So do you know when this court order occurred?
- A. Sometime late in the late '90s. I don't have
- 25 the exact date, no.

1 Q. Would 2000 be accurate, if I were to repre
---

- 2 that to you?
- 3 A. I -- I have no idea if it's accurate or not.
- Q. Okay. But even if you go with your suggestion
- 5 the late '90s, in fact, in 1994 and prior to that time
- 6 monitoring had been done by Union Electric; is that correct?
- 7 A. Yes.
- 8 Q. Let's look at page 4 of your testimony. The
- 9 question is, Despite Zoltek's lack of cooperation, has
- 10 AmerenUE continued to attempt to address Zoltek's
- 11 complaints?
- 12 You see the question there?
- 13 A. Yes, sir.
- 14 Q. And your answer is, Yes. AmerenUE has taken
- 15 all reasonable steps it knows of in an effort to address
- 16 Zoltek's complaints.
- Do you see the answer?
- 18 A. Yes, sir.
- 19 Q. By your answer are you saying that AmerenUE's
- 20 done everything it possibly could do?
- 21 A. Well, in the -- since 1991 when I became
- 22 involved with this situation through the decades of the
- 23 '90s, I certainly think that we have taken all reasonable
- steps in an effort to address the complaints, yes.
- Q. Okay. The question there seems to suggest

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- 2 answer seems to suggest that it's done everything possible.
- A. My answer doesn't seem to suggest anything.
- 4 It says, We believe we've taken all steps it knows in an
- 5 effort to address the complaints.
- 6 Q. Okay. What are those steps?
- 7 A. I think I just alluded to them since the early
- 8 '90s on the things that we've tried to do both in the way of
- 9 discussion, equipment, offering services to the company that
- 10 transgress almost, what, 10, 12 years.
- 11 Q. So this would be, for instance, the 400-amp
- 12 recloser that we've discussed today?
- 13 A. Yes. The upgrade of the station, the ongoing
- 14 discussions with engineers at Zoltek for which there were
- 15 numerous meetings, discussions, attention given.
- 16 Q. And despite the fact though that you did not
- 17 believe that, for instance, the 400-amp recloser would, in
- 18 fact, help the situation, in fact, it was an appeasement
- 19 move; is that correct?
- 20 A. I didn't believe there was reliability --
- 21 reliability problems at the park to begin with, but --
- 22 Q. Okay. So you didn't even think Zoltek had a
- 23 problem, did you?
- MR. VITALE: Your Honor, I'm going to object.
- 25 THE WITNESS: I believe --

- 1 JUDGE THOMPSON: Just a minute. We have an
- 2 objection.
- 3 MR. VITALE: I believe it misstates what his
- 4 testimony's been. He asked him before. He already
- 5 testified he believed there was a problem. The issue is he
- 6 did not believe it was a reliability problem from UE's
- 7 standpoint of the power being supplied. Two different
- 8 things.
- 9 MR. MAY: Your Honor, we just heard a response
- 10 wherein the witness just stated that he didn't believe there
- 11 was a reliability problem at all.
- 12 MR. VITALE: That's right. And that's not the
- same thing as saying there was not a problem at Zoltek's
- 14 plant. He's saying there was no problem with UE's -- the
- reliability of Union Electric's service, and they're two
- 16 different things.
- 17 JUDGE THOMPSON: I'm going to sustain the
- 18 objection. Please proceed.
- 19 BY MR. MAY:
- 20 Q. Let's go back to your comment you just made
- 21 before that question. You had said that you didn't believe
- 22 that there was a reliability problem with Union Electric's
- 23 service. Am I correct in that?
- 24 A. Yes, I did.
- Q. So if you did not believe that there was a

- 1 reliability problem, in fact, there was nothing Union
- 2 Electric could do; is that correct?
- 3 A. Yes, sir.
- 4 Q. So when you indicated to Mr. Rumy, for
- 5 instance, in your May 27th, '94 letter that you were going
- 6 to do certain things, you didn't believe at that time that
- 7 those things would do anything to benefit Mr. Rumy or
- 8 Zoltek, did you?
- 9 A. Perception is everything, Mr. May. If the
- 10 customer felt he had a problem, then we were going to work
- 11 at trying to solve that problem regardless of whether I
- 12 thought the problem was a real problem for us or not.
- 13 MR. MAY: Okay. One second, your Honor, if I
- 14 may.
- JUDGE THOMPSON: Certainly.
- MR. MAY: May I approach, your Honor?
- 17 JUDGE THOMPSON: You may approach.
- 18 (EXHIBIT NO. 33 WAS MARKED FOR
- 19 IDENTIFICATION.)
- 20 BY MR. MAY:
- 21 Q. Mr. Carr, I've handed to you a copy of what
- 22 appears to be a May 9, 1994 letter from you to Mr. Rumy. Do
- 23 you see that before you?
- 24 A. Yes, I do.
- Q. And is that correct? That, in fact, is what

- 1 it is?
- 2 A. That's what it is.
- MR. MAY: Your Honor, just as an aside, I
- 4 believe Exhibit 32 was admitted into evidence; is that
- 5 correct?
- JUDGE THOMPSON: No. Hasn't been offered or
- 7 admitted.
- 8 MR. MAY: At this time I'd like to move for
- 9 the admission of Exhibit 32 in evidence.
- 10 MR. VITALE: No objection.
- 11 JUDGE THOMPSON: Hearing no objections,
- 12 Exhibit 32 is received and made a part of the record of this
- 13 proceeding.
- 14 (EXHIBIT NO. 32 WAS RECEIVED INTO EVIDENCE.)
- MR. MAY: Thank you, Judge.
- 16 BY MR. MAY:
- 17 Q. With respect to Exhibit 33, Mr. Carr, let's go
- 18 to what appears to be the last paragraph on the first page
- 19 beginning with the words, At this time.
- 20 A. Yes, sir.
- 21 Q. Okay. I'm going to read that sentence. At
- 22 this time, your facility continues to be served by an
- 23 express feeder for the Research Park as we promised.
- Do you see that?
- 25 A. Yes, sir.

1 (	). Oka	y. Now	, you	go on	to	talk	again	 and

- 2 stop me if I'm wrong here, but you go on to talk about the
- 3 Weldon Springs substation upgrade. Do you see that --
- 4 A. Yes, sir.
- 5 Q. -- in that same paragraph?
- 6 And you say that this new installation will
- 7 permit us to serve the Weldon Springs Park with an express
- 8 feeder continuously. Do you see that?
- 9 A. Yes, I do.
- 10 Q. And I assume by Weldon Springs Park you meant
- 11 the Missouri Research Park?
- 12 A. That's correct.
- 13 Q. Okay. You talk about in that sentence though
- 14 an express feeder continuously. Do you see that, sir?
- 15 A. Yes, I do.
- 16 Q. Now, by that sentence you are saying that
- 17 prior to what was going to be the upgrade in February of
- 18 '95, that the express feeder serving Zoltek, in fact, was
- 19 not continuous; is that correct?
- 20 A. That's my understanding.
- 21 Q. Okay. So they were given express -- I'm just
- 22 trying to be clear -- express feeder service part of the
- year, part of the time?
- A. Well, I think I had told you in my deposition,
- 25 Mr. May, that the letters that transpired between the

1	district	people	responsible	for	this	customer	and	that	park

- 2 carried with them some indication of different times of the
- 3 year load requirements on our system and things that we did
- 4 electrically within that Wentzville system, especially
- 5 around the Research Park.
- I am not technically competent to identify all
- of them, but there are people here today that can do that.
- 8 But it was my understanding from talking to the manager of
- 9 the Wentzville district, that the express feeder did have
- 10 times during the course of the year -- and I believe they
- 11 were explained to the Zoltek people as well -- where certain
- 12 things occurred electrically on our system by switching and
- 13 redirection of loads that were for engineering reasons.
- 14 That's the best I can tell you.
- 15 Q. That's fine. And, in your estimation, would
- 16 the switching -- did that work against the definition of an
- 17 express feeder?
- 18 A. I don't know as it worked against it. It
- 19 merely provided a good mechanism for us to deal with the
- 20 load requirements on our system in the Weldon Springs area.
- 21 Q. And that was something that was promised to
- 22 Zoltek; is that correct?
- 23 A. I cannot answer that. I did not -- I do not
- 24 know of what was promised to Zoltek.
- Q. Okay. Well, let's look at your letter again.

1	You	wrote	though	on	Mav	9.	1994	to	Mr.	Rumy.	At.	this	time

- 2 your facility continues to be served by an express feeder
- 3 for the Research Park as we promised.
- 4 Do you see that?
- 5 A. Yes.
- 6 Q. So you had sufficient information on or before
- 7 May 9, 1994 to write that sentence?
- 8 A. I had information from the district manager of
- 9 Wentzville, who assisted me in writing the response to this
- 10 letter. And that was his instruction to me, that that park
- 11 would be served in this way and that's why it appeared in
- 12 the letter.
- Q. And, Mr. Carr, in your position were you
- 14 familiar with the 1988 agreement between the University of
- 15 Missouri and Union Electric with respect to the Missouri
- 16 Research Park?
- 17 A. Familiar with it? Yes.
- 18 Q. And, in fact, wasn't your position at the
- 19 company such that you would have some oversight over this
- 20 contract?
- 21 A. I did not have any oversight. My
- responsibility in the regional west area, of which
- Wentzville is a part of, took effect on October 1 of 1988.
- In the transition that occurred at that time
- 25 with the prior vice president, I was made aware of the fact

1	that there had been for some number of months discussions
2	with people representing the Missouri Research Park, the
3	development. And documents and agreements were made and
4	entered into that would require a signature when they became
5	permanent.
6	And I think my recollection is I signed that
7	document as a company officer on, like, October 15th or 16th
8	of 1988, which carried over into my term as the company
9	officer responsible and that signature represents that. I
LO	did not have anything to do with the discussion, the detail
L1	or the lead-up for working those details out with Missouri
L2	Research Park people.
L3	MR. MAY: Your Honor, may I approach the
L4	witness?
L5	JUDGE THOMPSON: You may.
L6	MR. MAY: Your Honor, this will be Exhibit 34?
L7	JUDGE THOMPSON: This will be Exhibit 34.
L8	MR. MAY: Your Honor, I'm falling down on the
L9	job here a little bit. I also want to move for the
20	admission of Exhibit 33.
21	JUDGE THOMPSON: Do I hear any objections to
22	the receipt of Exhibit 33?
23	MR. VITALE: No objection, Judge, except I
24	would note I think some of these exhibits are already
25	schedules to Mr. Rumy's testimony so they're in the record
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- 1 twice. But I guess this probably doesn't matter as it is
- 2 the agreement that was marked as 34.
- JUDGE THOMPSON: Thank you. Hearing no
- 4 objections, Exhibit 33 will be received and made a part of
- 5 the record of this proceeding. Please proceed.
- 6 (EXHIBIT NO. 33 WAS RECEIVED INTO EVIDENCE.)
- 7 (EXHIBIT NO. 34 WAS MARKED FOR
- 8 IDENTIFICATION.)
- 9 MR. MAY: Thank you.
- 10 BY MR. MAY:
- 11 Q. Mr. Carr, I've handed to you what you just
- 12 discussed for a moment there. This would be the October 18,
- 13 1988 agreement between the University of Missouri Curators
- and Union Electric Company; is that correct?
- 15 A. Yes, sir.
- 16 Q. And is that your signature that appears on the
- 17 second page?
- 18 A. Yes, it does.
- 19 Q. Okay. And look on page 1, if you would,
- within the context of paragraph No. 1. If you'll look at
- 21 the last sentence, I'm going to read from that if you could
- read along. The service will be looped to provide a more
- 23 reliable system to serve the University tenants.
- Do you see that?
- 25 A. Yes, I do.

1	Q. And you're familiar with that change?
2	A. I'm familiar with the words in the agreement.
3	Q. Well, let me step back then. You notice that
4	"uninterrupted service for" appears to have been scratched
5	out. Do you see that sir?
6	A. Yes, I do.
7	Q. Were you familiar with that scratching out,
8	that changing of the document?
9	A. It was done on September 28 of 1988. I had no
10	knowledge of it other than seeing it on the document that I
11	signed. I assume, typical in contracts, that people who
12	work on these things do make changes by scratching out and
13	initially for purposes of legal identification, and I saw
14	these contained in the document.
15	Beyond that, what they were intended to
16	purport to do or give to the parties was something that had
17	taken place in the months of discussion preceding this
18	document.
19	Q. Okay. But, nonetheless, when you signed it,
20	you were aware there was a change to the document. Correct?
21	A. Yes, I was.
22	Q. And you saw the language reliable I'm

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sorry -- "a more reliable system to serve," that insertion,

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24

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did you see that?

A. Yes.

- 1 Q. Okay. Now, with respect to a looped system,
- 2 isn't it true that you believe a looped system offers a more
- 3 reliable system?
- 4 A. It does offer a more reliable system in that
- 5 the outages that occur in a looped system are much shorter
- 6 duration. And that has an impact on the reliability, yes.
- 7 Q. Okay. Thank you, sir.
- 8 MR. MAY: Thank you, Judge.
- JUDGE THOMPSON: Thank you, Mr. May.
- 10 And, Ms. Shemwell? And let me apologize,
- 11 Ms. Shemwell. I notice that you should have gone first in
- 12 your cross-examination.
- 13 MS. SHEMWELL: That's quite all right. Thank
- 14 you.
- 15 CROSS-EXAMINATION BY MS. SHEMWELL:
- Q. Good morning, Mr. Carr. My name is Lera
- 17 Shemwell. I'm an attorney representing the Staff of the
- 18 Public Service Commission.
- 19 A. Good morning.
- 20 Q. Sir, you had said something earlier about you
- 21 weren't qualified to answer a particular question. I don't
- 22 remember exactly, but I looked at your testimony and you had
- 23 not included education. Are you an engineer, sir?
- A. No, I am not.
- Q. So I won't ask you to define looped system

1	then.	
2		Α.

- 2 A. That I would appreciate.
- 3 Q. There will be other people.
- 4 What about recloser? We've talked about that
- 5 and from the discussion -- let me just see if I'm
- 6 understanding it, because I probably put it -- is it like a
- 7 circuit breaker, but it recloses without someone having to
- 8 manually go out and --
- 9 A. Excellent.
- 10 Q. Okay. Thank you.
- 11 A. In my laymen's approach, that's exactly what
- 12 it does. It automatically recloses after a short time
- 13 duration allowing the service to be restored without having
- to go out and physically or manually switch.
- 15 Q. So it shortens the duration then?
- A. Yes, ma'am.
- 17 Q. Okay. You seem to say in your testimony that
- 18 Zoltek's lack of cooperation was a problem. But would you
- 19 have been able to solve their problems had they cooperated
- 20 fully?
- 21 A. That's a very good question. There's not
- a 100 percent guarantee that we'd have been able to do that.
- 23 However, we were never allowed to do the kind of
- 24 investigation that my testimony alludes to.
- 25 It's been pointed out frequently that the

1	monitoring	that	was	done	was	done	in	the	utility	v room	, which

- 2 is where the incoming services come into the plant. In my
- 3 experience over years with dealing with power quality
- 4 people, is that the way you investigate complaints is you go
- 5 where the equipment is.
- 6 Q. Do we have power quality people who are going
- 7 to speak later?
- 8 A. Yes, we do. And they will be glad to refer to
- 9 your questions and answer them.
- 10 MS. SHEMWELL: Thank you very much, sir.
- 11 THE WITNESS: You're welcome.
- 12 JUDGE THOMPSON: Let's see. Redirect -- no,
- 13 questions from the Bench now. An opportunity that I
- 14 certainly don't want to miss.
- 15 OUESTIONS BY JUDGE THOMPSON:
- 16 O. Mr. Carr --
- 17 A. Should I be excited, Judge?
- 18 Q. Certainly I am.
- 19 A. Then I am too.
- 20 Q. Could you explain to me exactly what the
- 21 functions, the duties of your position are with respect to
- 22 Ameren's supply of power to Zoltek?
- 23 A. I'd be glad to. My responsibilities deal with
- 24 running a function that is comprised of six districts that
- are located outside the metropolitan St. Louis area. And

1	thev	run	from	Kirksville	on	the	north	tο	Cape	Girardeau	οn
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- 2 the south and from Excelsior Springs near Kansas City to
- 3 Louisiana, Missouri.
- 4 Each of those districts are fashioned in a way
- 5 that we provide a manager, an engineering department, we are
- 6 responsible for construction, maintenance and operation of
- 7 Ameren facilities as it takes care of service to 385,000
- 8 customers in that system, and that includes both electric
- 9 and natural gas.
- 10 Q. So you are in charge of the transmission
- 11 system?
- 12 A. Distribution would be more accurate.
- Q. Distribution system?
- 14 A. Yes, sir.
- 15 Q. Thank you. Both electric and gas?
- 16 A. Yes, sir.
- 17 Q. And how many similar positions are there
- 18 within Ameren?
- 19 A. There's a vice president in the metropolitan
- 20 area for the metropolitan operation and for the distribution
- 21 side of the business and myself. We handle the state of
- 22 Missouri.
- 23 Q. So you're one of two people that handle the
- 24 state of Missouri?
- 25 A. On a distribution basis, yes, sir.

2	metropolitan?
3	A. Correct.
4	Q. Very good. So naturally you would be in
5	charge of seeing that a customer complaints of this nature
6	are mended?
7	A. Yes, sir.
8	Q. Now, you have indicated that Ameren, in your
9	opinion, was not permitted to do the sort of investigation
10	it wanted to do or would normally do in a case like this; is
11	that correct?
12	A. I believe that truly, yes, sir.
13	Q. Could you please explain to me exactly what it
14	is that Ameren was not allowed to do?
15	A. I believe what we should have and what we
16	requested to do early in the game was to get some of our
17	people familiar with the intricacies of our system, our
18	distribution delivery system into the company premises and
19	be able to ascertain from what is happening whether the
20	cause is coming transient from our system into the plant or
21	are there contributing factors inside the plant that may
22	be if found and resolved, may cure the problem.
23	We were never allowed to do that. And that
24	request was made many times at the level of the plant
25	engineering people and the people that represented me, that
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1 Q. And you do the out-state and someone else does

1	will	testify	later,	in	the	ongoing	dialogue	that	occurred

- 2 over many months.
- 3 Q. So it was a request that was made repeatedly?
- 4 A. Yes, sir. It was made repeatedly.
- 5 Q. And denied repeatedly?
- 6 A. It was denied repeatedly, because we never got
- 7 access to the plant, which I have to tell you is unique. My
- 8 experience over many customers similarly having problems,
- 9 we've had good success with identifying the real issues.
- 10 And some were on our system and some were happening within
- 11 the confines of the plant.
- 12 Q. So you've had similar sorts of problems with
- 13 other customers?
- 14 A. Yes.
- 15 Q. And you have worked with them to resolve them?
- 16 A. Yes.
- 17 Q. And sometimes you've found that it's on
- Ameren's side and sometimes on the customer's side?
- 19 A. And you will have testimony later that will
- demonstrate things specifically of that nature, yes.
- Q. And perhaps sometimes a mix?
- 22 A. I would be surprised if it did not happen that
- 23 way on occasion, yes.
- Q. Okay. So, as of today, to your satisfaction,
- 25 has the source and nature of the problem experienced by

1	Zoltek ever been satisfactorily identified?
2	A. Apparently not.
3	Q. And you indicated it's unusual in your
4	experience for the customer not to cooperate with Ameren's
5	investigative procedure?
6	A. Judge, it's extremely usual for me to get
7	complaints from a large industrial customer of this nature.
8	In the 14 years I've been a function head for this company,
9	I can't think of five or six in 14 years that have gotten to
LO	the point where this customer has progressed to.
L1	Q. Okay. Now, you may not be able to tell me
L2	this, but about how many large industrial customers does
L3	Ameren have within the area you're responsible for?
L4	A. If you deal with large and small industrial
L5	types, well over 300.
L6	Q. And, to your knowledge or in your experience,
L7	is a significant number of those customers sensitive to
L8	fluctuations in the power?
L9	A. I would expect to varying degrees they
20	certainly could be. But the framework of my operation is
21	that the local district has all of the resources and
22	expertise and technical ability to deal with things
23	electrically impacting our system or the customer or both.
24	And I fully expect those people to perform

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that job. That's what we're paying them to do. So to see a

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1	significant		~ =					
1	Significant	amount	OT	attention	LO	ondornd	Complaints	tnat

- 2 walk across years, I'd say, is relatively unique.
- 3 Q. Have you ever received any explanation for why
- 4 Zoltek has not cooperated with Ameren's investigation?
- 5 A. No, I have not.
- 6 Q. Have you had occasion to discuss it with
- 7 Mr. Rumy?
- 8 A. No, I have not.
- 9 Q. Is it unusual for this kind of problem to
- 10 reach your level?
- 11 A. No, it is not. You said is it unusual or
- 12 usual?
- 13 Q. Yes, sir. Is it unusual?
- 14 A. It's unusual for them to get to my level.
- 15 Q. Because you have, I think you said, six
- 16 different districts?
- 17 A. Six districts out in the out-state Missouri
- area with full capability and authority to deal with the
- 19 full range of problems that occur on our system.
- 20 Q. And, in fact, is it your expectation that they
- 21 will resolve these matters at the district level?
- A. Absolutely.
- 23 Q. Okay. And are you satisfied that the people
- 24 you supervise have done everything you would expect them to
- do to work to resolve this problem?

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- one, frankly, has gotten away from that and I'm not sure
- 3 exactly at this point why.
- 4 JUDGE THOMPSON: Okay. Do we have any recross
- 5 based on questions from the Bench? And, Mr. May, we'll let
- 6 Ms. Shemwell go first this time.
- 7 MS. SHEMWELL: No, your Honor. Thank you very
- 8 much.
- JUDGE THOMPSON: Thank you. Mr. May?
- 10 RECROSS-EXAMINATION BY MR. MAY:
- 11 Q. Mr. Carr, you just indicated to his honor in
- 12 response to his questions that there were many requests made
- of Zoltek for cooperation with regard to an investigation;
- is that correct?
- 15 A. That's my understanding.
- 16 Q. Okay. Well, I think you represented to the
- 17 Judge that definitely was the case. Now, are you saying
- 18 it's your understanding that occurred or you --
- 19 A. We --
- 20 Q. Let me finish. Do you have personal knowledge
- 21 about requests being made?
- 22 A. Let me be specific. In discussions with
- 23 Mr. Hulse starting in '92, '93, progressing into the late
- 24 '90s, I am aware of requests being made to deal with the
- 25 internal mechanisms in an attempt to get our power quality

- 1 people in there to look at the problem and we were not
- 2 successful.
- 3 Q. Did you make a request?
- 4 A. That is not my job to make a request. It's
- 5 the -- it is the job of the local district people dealing
- 6 with the customer --
- 7 MR. MAY: Your Honor, I would object. It's
- 8 not responsive. The simply question, did he make a
- 9 request --
- 10 THE WITNESS: No, I did not.
- 11 BY MR. MAY:
- 12 Q. So, sir, in 1993 you didn't make a request.
- 13 Correct?
- 14 A. No, I did not.
- 15 MR. VITALE: For the record, your Honor, the
- 16 he -- or you, I'm sorry, is not being used generically. You
- meaning it's Mr. Carr personally, just so there's no
- 18 question on the record.
- 19 JUDGE THOMPSON: I understand that,
- 20 Mr. Vitale. Thank you.
- 21 Please proceed.
- BY MR. MAY:
- 23 Q. Mr. Carr, you had testified in response to the
- Judge's questions about investigations. Correct?
- 25 A. Yes, I did.

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Δ ,	2. And	you i	iau iei	or epericed	LU	CIII	COUL	LIIaL	OII

- 2 numerous occasions, efforts were made on the part of Union
- 3 Electric to do monitoring, testing, investigation; is that
- 4 correct?
- 5 A. Yes, I said that.
- 6 Q. And you made representations that those
- 7 requests were denied; is that correct?
- 8 A. We didn't achieve the objective, so I assume
- 9 they were denied.
- 10 Q. You don't know though for sure?
- 11 A. We didn't go there.
- 12 Q. Okay. So, sir, in 1994, was it your job to
- 13 request some sort of monitoring?
- A. No, it wasn't my job.
- 15 Q. Well, let's look at Exhibit 32. You were
- dealing with Mr. Rumy, weren't you, on May 27th, 1994?
- 17 A. I don't have numbers on these exhibits so tell
- me which one is 32.
- 19 Q. I'm sorry. May 27th, 1994 letter to
- 20 Mr. Carr -- I'm sorry -- Mr. Rumy from you.
- 21 A. All right.
- 22 Q. If I understood your testimony, you said it
- 23 wasn't your job when it comes to investigations. Were you
- not taking on that task in May of '94?
- 25 A. I was conveying a message to Mr. Rumy about

- 1 the letter written to me prior to this and trying to tell
- 2 him what we could do, yes.
- 3 Q. Okay. Looking at your May 27th letter, the
- 4 third paragraph, last sentence before you go into -- on
- 5 No. 1 and 2 you say, As a result of that discussion, I offer
- 6 the following.
- 7 Do you see that?
- 8 A. I did. This was my letter. It's in the -- in
- 9 the present tense, yes. I offered. But you'll also note
- 10 "we" repeatedly throughout this letter. We meant the
- 11 district people. Those people representing Ameren
- 12 Corporation working with the customer.
- 13 Q. Well, sir, I'm talking about, again, your
- 14 representations to the Judge with respect to these requests
- 15 for investigations, authority to do investigations and being
- 16 denied allegedly by Zoltek. Did you not in paragraph 1 talk
- 17 about installing -- I'm sorry -- reinstalling monitoring
- 18 equipment?
- 19 A. I said we will reinstall, yes. We will
- 20 reinstall, that's what I said.
- Q. Now, sir, is that, in fact, a type of
- 22 investigation of the power quality at Zoltek's facility at
- 23 the Missouri Research Park?
- 24 A. It's an attempt.
- Q. Sir, is it, in fact, a type of investigation?

1	A. Yes, it is a type of investigation.
2	Q. Okay. Now, when you represented to the Judge
3	that there were all these requests and denials, can you
4	detail for the court when such requests occurred? Can you
5	give us some dates?
6	A. No, I can't. I can merely tell you that in
7	the paragraph of the letter I make mention of a meeting with
8	people at Union Electric dealing with Zoltek problems in an
9	attempt to identify steps to be taken. That's what this
10	letter represents.
11	Q. Okay. Well, let's put aside the letter for a
12	minute and let's talk about again, you had made
13	representations. I'm asking you, when were such requests
14	made?
15	A. Throughout the time frame from '93 through
16	late '90s.
17	Q. And did you make those requests personally?
18	A. No. I did not make all those requests
19	personally. Some of the items contained in the letter
20	obviously do make direct comment to Mr. Rumy from me since $\ensuremath{\mathtt{I}}$
21	authored the letter.
22	Q. Okay.
23	A. The content of that letter was there because

1013
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of cooperation from people within the district responsible

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for Zoltek.

JUDGE THOMPSON: I think Mr. Vitale has an
objection.
MR. VITALE: Mr. Carr answered the question
already before I had a chance to object, but these questions
have been asked and answered. We're going down the same
path. He's asking them again. You asked the question, he
said that's not his job, that was the district people,
that's why they hired them.
MR. MAY: Your Honor, if I may, Mr. Vitale
does an excellent job of testifying. Maybe I should
cross-examine him.
He said it wasn't his job. I think we
sufficiently established that maybe it was his job or he
took it upon himself in May of '94. And I think, your
Honor, this is cross-examination and I believe I have the
right to ask these questions.
JUDGE THOMPSON: Yes, you do. Absolutely you
do. However, I notice that we're becoming a little heated
and, consequently, we will take a 15-minute break at this
time. Let me remind you that vigorous cross-examination is
nonetheless courteous.
MR. MAY: Yes, sir.
JUDGE THOMPSON: So if everyone will relax,
take some time to gather themselves, we'll reconvene why
don't we say a quarter of. Thank you.

1	(A RECESS WAS TAKEN.)
2	JUDGE THOMPSON: Mr. May, you were inquiring.
3	MR. MAY: Yes, sir.
4	BY MR. MAY:
5	Q. Mr. Carr, to try to pick up where we left off,
6	again, I'm focusing on the Judge's questions to you and
7	those questions pertaining to the we'll call it the
8	investigations done at Zoltek or lack of cooperation.
9	And just to be clear, you don't have any
10	letters or any documents that support the idea that you made
11	some requests? Do you have anything with you today? Did
12	you make requests?
13	A. I don't understand. Make requests?
14	JUDGE THOMPSON: We have a compound question
15	now. Let's take the last one, first. Sir, did you
16	personally make any such requests?
17	BY MR. MAY:
18	Q. Requests with respect to investigations to be
19	done at the Zoltek plant.
20	A. The one I was most intricately involved in was
21	the modem set-up, the second one no, I think it was the
22	first one. I believe it was the first one where we set the
23	modem up and we tied that to our dispatch office in
24	St. Louis with instructions to the operating people at the
25	plant that when you saw incidents that affected your
	1015

- 1 operation, you were to dial in and call the dispatch office
- 2 and they could dial that modem up immediately and they could
- 3 see what was going on.
- 4 I was involved in that because it needed to be
- 5 done promptly. And I talked to the manager of the operating
- 6 department and we worked together to get that done
- 7 posthaste. So in that case, I was personally involved.
- Q. Yes, sir.
- 9 JUDGE THOMPSON: Now, we had a second part to
- 10 our compound question.
- 11 MR. MAY: I'll strike the first part, your
- 12 Honor.
- 13 BY MR. MAY:
- 14 Q. With respect to the investigation you just
- 15 talked about, would that be the investigation that's
- 16 referenced in your May 27th, 1994 letter, which is
- 17 Exhibit 32?
- 18 A. Yes. That is referencing that specific
- 19 installation.
- 20 Q. And, again, there's talk in that letter about
- 21 reinstalling. So I believe your answer previously was it's
- 22 safe to assume it had been installed prior to that?
- 23 A. It was the re-- it was a reinstallation as the
- 24 letter points out.
- Q. Yes, sir. Were there any other requests that

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- 2 in regard to any type of investigation?
- 3 A. Not to my knowledge, no, sir.
- 4 Q. And, again, I believe you had answered that
- 5 you did not know, but correct me if I'm wrong, when did
- 6 other people -- or strike that.
- 7 Did other people at Union Electric make
- 8 requests to do monitoring or some sort of investigation at
- 9 the Zoltek plant?
- 10 A. Yes, they did.
- 11 Q. And when were those requests made?
- 12 A. I cannot answer that question. There are
- people coming on board later that should be able to
- 14 enlighten that.
- 15 Q. Okay. Now, in your testimony on page 3,
- 16 lines 20 and 21 --
- 17 A. Yes, sir.
- 18 Q. -- do you see that?
- 19 You talk about this court order and you talk
- 20 about getting the access that you're usually given
- 21 voluntarily. Do you see that?
- 22 A. Yes, I do.
- 23 Q. So, in fact, in 2000 you were given the access
- 24 that you had previously described to the Judge that you're
- granted at other places; is that correct?

1	A.	Yes,	sir.

- Q. And as a result of that access, were you able
- 3 to solve Zoltek's problem?
- 4 A. Since I didn't do the testing, I'm not aware
- of a solution to the problem, no.
- 6 Q. Okay. But you just don't know either way
- 7 whether a solution was gathered or created as a result of
- 8 that access?
- 9 A. I do know the outcome, but it's in the form of
- 10 a verbal report to me about that visit. So the gentleman
- 11 that was there will be on later on.
- 12 Q. Did you relay that information to anyone at
- 20 Zoltek, that you had received this verbal information?
- 14 A. No. I was consistent about everything
- 15 connected with Zoltek. It goes through the district and
- 16 contacts with that customer come through the district. So
- that reference is made repeatedly by me in terms of what
- 18 Ameren is doing with that customer directly.
- 19 Q. Well, I don't want to belabor the point. I'm
- 20 a little confused by your last answer. You wrote to
- 21 Mr. Rumy not only on May 27th of '94, but on a few other
- 22 occasions; is that correct?
- 23 A. Yes.
- Q. So were you part of the district at that time?
- 25 Is that what you're saying?

1 A.	No, I'm not.	The letters that I wrote to
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- 2 Mr. Rumy were a result of Mr. Rumy's letters to me and in
- 3 many cases responses to things that he said to me.
- In my -- in my May 27th letter, for example,
- 5 at the bottom of the letter I talk about notifications need
- 6 to be made to the local district. I was trying to put a
- 7 focus on responses. And I will tell you without fear of
- 8 contradiction, much of the response in these letters came
- 9 from dialogue with the local district people about what
- 10 Ameren was doing for that customer.
- 11 Q. Well --
- 12 A. And those people are going to be on here later
- on. You can chat with them about that.
- 14 Q. With respect to the response, we talked about
- 15 the year 2000, the monitoring that was done, the access that
- 16 was given --
- 17 A. Yes, sir.
- 18 Q. -- correct?
- I asked you, did you relay any information
- 20 based on that investigation to anyone at Zoltek?
- 21 A. No, I did not.
- 22 MR. MAY: Okay. Nothing further, Judge.
- 23 Thank you.
- JUDGE THOMPSON: Thank you, Mr. May.
- MR. MAY: Thank you, sir.

1	JUDGE THOMPSON: Redirect, Mr. Vitale?
2	MR. VITALE: One moment, your Honor.
3	REDIRECT EXAMINATION BY MR. VITALE:
4	Q. Mr. Carr, let me direct your attention to
5	Exhibit 33, which is your May 9, 1994 letter to Mr. Rumy.
6	A. All right.
7	Q. And so I can understand, this letter and the
8	other letter Mr. May has asked you about, Exhibit 32, you
9	weren't taking the initiative to deal with Zoltek here, you
10	were just responding to Mr. Rumy's direct correspondence
11	with you?
12	A. That's correct.
13	Q. And you were relying on your district people
14	and the engineers to deal with the personnel and the people
15	directly at Zoltek concerning the problems they were having?
16	A. That's correct.
17	Q. Now, in this letter of May 9, 1994 there's a
18	discussion about the in-service date of the Weldon Springs
19	substation. Do you see that at the bottom?
20	A. Yes, sir.
21	Q. And to your understanding, the substation
22	issue was discussed with Zoltek between UE personnel and
23	Zoltek personnel. Correct?

1020 ASSOCIATED COURT REPORTERS 573-636-7551 JEFFERSON CITY, MO 573-442-3600 COLUMBIA, MO

Q. Okay. And when you say in that last

A. Yes, it was.

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1	paragraph, Also, as was discussed in the December meeting,
2	at your suggestion we have expedited the in-service date of
3	our new Weldon Springs substation.
4	Who was the your suggestion? Who was the
5	"your" or "you" you're referring to there?
6	A. I'm referring to Mr. Rumy's letter to me
7	no, take that back. That suggestion came up in the
8	discussion in December with my representatives from the
9	district and Zoltek people talking about issues connected
LO	with service and the problems they were having.
L1	And the suggestion was made in the context of
L2	that meeting that we could advance and I think that was
L3	asked for by Mr. Rumy. It came to me in the form of a
L4	request from Mr. Hulse, I believe, who was in that meeting.
L5	And came to the conclusion in our general discussion that if
L6	that could be done, the manufacturer was willing, we'll make
L7	every effort at advancing the in-service date of that
L8	equipment.
L9	Q. Okay. So when Mr. May asked you about
20	appeasements to Mr. Rumy, that was a request Mr. Rumy made,
21	at least as you understood it, so you complied with his
22	request?
23	MR. MAY: Objection, your Honor. Leading the
24	witness.
25	JUDGE THOMPSON: Could you please rephrase

1	your	question?
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- 2 BY MR. VITALE:
- 3 Q. Did UE have any plans to operate -- strike
- 4 that -- to expedite or move up the date of upgrading the
- 5 substation?
- 6 A. No. Originally we did not. It was set for
- 7 mid-1995.
- 8 Q. Now, if you'll look on the next page on
- 9 Exhibit 33, second page of your letter, why were you
- 10 responding to -- or what were you telling Mr. Rumy about why
- 11 the substation -- you use the word "replace." Was it being
- 12 replaced or upgraded?
- 13 A. Some of the equipment was being replaced with
- 14 newer pieces of equipment, greater capacity involved within
- 15 the new equipment.
- 16 Q. Okay. And what was the purpose of your
- 17 statement there beginning in that paragraph, This substation
- is being replaced? Why did you write that to him?
- 19 A. Well, I believe there were discussions even in
- 20 the December meeting about the fact that our equipment was
- obsolete. Somehow because of so-called older equipment, it
- 22 was not doing its job or was not meeting the operating
- 23 requirements of our system design.
- 24 And I took issue with that, you know. The
- 25 fact that it was an older piece of equipment did not in and

1	of	itself	mean	the	equipment	was	inoperative	or	faulty.	Ιt
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- 2 just meant that as the geographical area around Weldon
- 3 Springs grew, we needed to constantly look at the demands on
- 4 our system.
- 5 And one of the ways to do that was to look at
- 6 the capacity of our equipment, determine when to replace it,
- 7 upgrade it or enlarge it to handle that particular activity.
- 8 Q. Mr. May asked you some questions about the
- 9 2000 monitoring that was done. You didn't do that
- 10 monitoring. Correct?
- 11 A. No, I did not.
- 12 Q. Was that monitoring done at your direction?
- 13 A. The power quality people in our company today
- 14 are in an operating department, not directly responsible to
- 15 me, but my operation has access to those people to provide a
- 16 resource on request for any customer in our system. And we
- 17 have been using that service and resource for many years
- 18 with our customers.
- 19 Q. But specifically the 2000 monitoring at
- 20 Zoltek, that wasn't done under your watch?
- 21 A. No.
- MR. VITALE: Nothing further, your Honor.
- JUDGE THOMPSON: Thank you, Mr. Vitale.
- 24 MR. VITALE: One moment, I'm sorry. One or
- 25 two more questions. I'm sorry, your Honor.

	VITALE	

- Q. Mr. Carr, Mr. May asked you some questions
- 3 about what's marked as Exhibit 34, the agreement between the
- 4 park?
- 5 A. Yes, sir.
- 6 Q. Did you ever have any discussions with
- 7 Mr. Rumy about that contract?
- 8 A. Never.
- 9 Q. And did Mr. Rumy ever say anything to you that
- 10 UE's not living up to the terms of that contract for some
- 11 reason?
- 12 A. Never. Never received a call from Mr. Rumy.
- 13 Q. Or did he ever say that -- you've never spoken
- 14 to him personally?
- 15 A. No, I have not.
- 16 Q. It's all been correspondence?
- 17 A. That's correct.
- 18 Q. In any of the letters that you received from
- 19 him did he say, Hey, this contract says what it says, how
- 20 come you haven't complied with it?
- 21 A. Not that I'm familiar with, no, sir.
- MR. VITALE: Nothing further, Judge.
- 23 MR. MAY: Your Honor, with respect to
- 24 Exhibit 34, I would move for its admission, although I do
- 25 believe it's attached to Mr. Rumy's Direct Testimony.

1		JUDGE THOMPSON: Any objections to the receipt
2	of Exhibit 34	?
3		MS. SHEMWELL: No your Honor.
4		MR. VITALE: No, your Honor.
5		JUDGE THOMPSON: Hearing no objections,
6	Exhibit 34 is	received and made a part of the record of this
7	proceeding.	
8		(EXHIBIT NO. 34 WAS RECEIVED INTO
9	EVIDENCE.)	
10	FURTHER QUEST	IONS BY JUDGE THOMPSON:
11	Q.	Mr. Carr, before I let you get away, I have an
12	additional qu	estion.
13	Α.	All right.
14	Q.	I noticed that you signed this agreement on
15	behalf of Uni	on Electric Company. And so the question I
16	have for you	is whether or not the service at the Research
17	Park is, in f	act, looped?
18	Α.	My understanding, your Honor, is that it is.
19	Q.	Okay.
20	Α.	Today.
21	Q.	Today. And do you have any idea as to when it
22	became looped	?
23	A.	I cannot give you that date without the
24	district peop	le being able to provide me that information.

Q. And as far as you know, are there people that

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1	are	anina	tο	testify	, later	today	that	Pluow	probably	have
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- 2 that information?
- 3 A. Not probably. Absolutely.
- 4 Q. Very well. Thank you. Are you planning to be
- 5 here all day today?
- A. I wasn't, but I could be.
- 7 Q. Well, the reason I ask that is the
- 8 Commissioners are tied up in the agenda session right now
- 9 and they should be joining us -- well, maybe not until after
- 10 the lunch break and if any of the Commissioners have
- 11 questions for you, it would probably be easier to keep you
- 12 here for a while today then have to ask to come you back.
- 13 A. I can accommodate that.
- 14 Q. If you can just wait until we get the
- 15 Commissioners here and find out if they have questions, that
- 16 would be great.
- 17 JUDGE THOMPSON: Thank you, Mr. Carr, very
- 18 much for your testimony.
- 19 THE WITNESS: You're welcome.
- 20 JUDGE THOMPSON: I believe we're ready now for
- 21 Mr. Hulse.
- 22 (Witness sworn.)
- 23 JUDGE THOMPSON: Thank you, Mr. Hulse. Please
- 24 take your seat, state your name for the reporter and spell
- it, if you would.

2	H-u-l-s-e.
3	JUDGE THOMPSON: Now, let's see. We have your
4	Rebuttal Testimony here, which is Exhibit 15, and then we
5	have Supplemental Rebuttal Testimony, which we will go ahead
6	and mark at this time as Exhibit 35.
7	I guess I should also ask you, Mr. Vitale, I
8	did not do that earlier, whether you would like the proposed
9	supplemental of Mr. Hackman to be preserved as an offer of
10	proof.
11	MR. VITALE: We were going to do that, Judge,
12	when Mr. Hackman testified later today, but yes.
13	JUDGE THOMPSON: Very well. We'll take that
14	up then at that time.
15	MR. VITALE: Thank you, Judge.
16	May I approach the witness?
17	JUDGE THOMPSON: You may.
18	DIRECT EXAMINATION BY MR. VITALE:
19	Q. Mr. Hulse, by whom are you employed?
20	A. I'm employed by Ameren Corporation.
21	Q. Okay. And in what capacity?
22	A. I'm a business development executive.
23	Q. And where is your office located?
24	A. My office is located in Jefferson City,
25	Missouri.

THE WITNESS: My name is James B. Hulse,

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1	Q. And you have before you your Rebuttal
2	Testimony, which as the court stated, has been marked as
3	Exhibit 15. The copy you have isn't marked that, but is
4	that your Rebuttal Testimony?
5	A. Yes, it is.
6	Q. Okay. And that's your signature on the
7	affidavit at the end of that exhibit?
8	A. Yes, it is.
9	Q. Okay. And do you have any corrections or
10	changes to make to that testimony as you sit here today?
11	A. No, I do not.
12	Q. And are the answers true and complete, to your
13	best knowledge?
14	A. Yes, they are.
15	Q. Okay. And if I was to ask you the same
16	questions today as were asked in this written testimony,
17	would your answers be the same?
18	A. Yes, they would.
19	Q. Now, let me direct your attention to the
20	Supplemental Rebuttal Testimony that's before you that's
21	marked Exhibit 35. Do you see that?
22	A. Yes, I do.
23	Q. Okay. And is that your signature on the

1028 ASSOCIATED COURT REPORTERS 573-636-7551 JEFFERSON CITY, MO

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Testimony?

573-442-3600 COLUMBIA, MO

affidavit that's affixed to that Supplemental Rebuttal

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- 2 Q. And do you have any corrections or changes to
- 3 make to that testimony?
- A. No, I do not.
- 5 Q. And are the answers you've given there true
- and complete, to the best of your knowledge?
- 7 A. Yes, they are.
- 8 Q. Okay. And if I were to ask you the same
- 9 questions today as are in the written testimony, would your
- 10 answers be the same?
- 11 A. Yes.
- 12 MR. VITALE: Your Honor, we'd offer Exhibits
- 13 15 and 35 at this time.
- 14 JUDGE THOMPSON: Do I hear any objections to
- 15 the receipt of Exhibit 15?
- MS. SHEMWELL: No, your Honor.
- MR. MAY: No, your Honor.
- 18 JUDGE THOMPSON: Hearing no objections,
- 19 Exhibit 15 is received and made a part of the record of this
- 20 proceeding.
- 21 (EXHIBIT NO. 15 WAS RECEIVED INTO EVIDENCE.)
- JUDGE THOMPSON: Do I hear any objections to
- the receipt of Exhibit 35?
- MS. SHEMWELL: No, your Honor.
- MR. MAY: Your Honor, I would simply restate

- our previous objections to Exhibit 35.
- JUDGE THOMPSON: Very well. The objections
- 3 are overruled. Exhibit 35 is received and made a part of
- 4 the record of this proceeding.
- 5 (EXHIBIT NO. 35 WAS MARKED FOR IDENTIFICATION
- 6 AND RECEIVED INTO EVIDENCE.)
- 7 MR. VITALE: Before I tender the witness, your
- 8 Honor, I have copies of the Supplemental Rebuttal, if you
- 9 need them.
- 10 JUDGE THOMPSON: I think that would be a good
- 11 thing.
- 12 MR. VITALE: Tender the witness for
- 13 cross-examination.
- JUDGE THOMPSON: Ms. Shemwell?
- MS. SHEMWELL: Thank you, your Honor.
- 16 JUDGE THOMPSON: You're going to have to give
- me just a moment here to mark these.
- 18 MS. SHEMWELL: Certainly. That's fine.
- 19 JUDGE THOMPSON: Do you have a copy? I assume
- you do.
- 21 THE WITNESS: Yes, I do.
- JUDGE THOMPSON: Great. Please proceed.
- MS. SHEMWELL: Thank you, your Honor.
- 24 CROSS-EXAMINATION BY MS. SHEMWELL:
- Q. Sir, my name is Lera Shemwell. I'm an

1	attornev	for	the	Staff	of	the	Public	Service	Commission

- 2 Do you have a copy of the agreement, which is
- 3 Exhibit 34, there with you, sir?
- 4 A. Yes, I do. It's on my Supplemental Rebuttal
- 5 Testimony.
- 6 Q. Thank you, sir. The JBH on the bottom
- 7 right-hand side of the first page, is that your initials?
- 8 A. Excuse me. I retract that. I do not have it.
- 9 I thought this is the EDR contract. I do not have a copy of
- 10 that.
- 11 Q. This is the one titled Agreement.
- 12 A. Right. I do not have that.
- 13 MR. VITALE: Your Honor, if I may approach. I
- 14 thought Mr. Carr had it and I don't know what --
- JUDGE THOMPSON: You may.
- 16 BY MS. SHEMWELL:
- 17 Q. If I could direct your attention to the bottom
- 18 right-hand corner of the first page, are those your
- 19 initials, JBH?
- 20 A. Yes, they are.
- Q. And, sir, how would you define a more reliable
- 22 system? I guess my question is, more reliable than what?
- 23 A. Well, a more reliable system is -- what I was
- referring to there is that we cannot guarantee 100 percent
- 25 continuity all the time to a customer.

1	Q. What does a more reliable system mean?
2	A. More reliable system just means that we would
3	put in a state-of-the-art system that you know, that
4	would provide a service just like we do to all classes of
5	our customers that we serve in Missouri.
6	Q. So my question comes back to more reliable
7	than what? If it's just like everybody else, what's it more
8	reliable than?
9	A. Well, I don't know what you're
10	Q. Well, you've put in the phrase a more reliable
11	system to serve. And my question is, what does that phrase
12	more reliable system mean?
13	A. Since this happened such a long time ago, a
14	more reliable system I guess would be considered as a looped
15	system.
16	Q. And are you the one we should ask about what
17	looped system means?
18	A. A looped system, I would refer that to the
19	district engineer.
20	Q. Who is?
21	A. Which is Jeff Hackman.
22	Q. Thank you. It's my understanding that there
23	is an underground system in the Research Park, that the
24	lines are underground as opposed to above ground; is that
25	correct?

1	Δ	That's	correct.
	Α.	IIIac B	COLLCCC.

- 2 Q. Is the agreement to provide an underground
- 3 system somewhere other than in what we're seeing as
- 4 Exhibit 34, or is that what's covered on page 2 under
- 5 paragraph 3?
- A. That's correct.
- 7 Q. Was that also done to provide a more reliable
- 8 system?
- 9 A. No. That was at the request of -- of the
- 10 Missouri Research Park. The people specifically Mr. Edison,
- 11 James Edison.
- 12 Q. Do you have an opinion as to why people would
- pay extra to have an underground system installed?
- 14 A. My opinion is just for aesthetic purposes. We
- are an overhead line distribution company and it's really
- 16 for aesthetics, in my opinion.
- Q. So appearances?
- 18 A. Appearances.
- 19 Q. You say in your testimony at page 2,
- 20 line 16 -- in your Rebuttal Testimony, page 2, line 16 that
- 21 this would be a high-tech park. Do you see that, sir?
- 22 A. Yes, I do.
- 23 Q. What input did Ameren give to I guess the
- developers of the park about what would be necessary or
- 25 appropriate for a high-tech park?

1	A. Well, what we did when we were considering
2	taking on service to this park, we had a gentleman named
3	Mr. John Cobb, which was the district engineer at that time,
4	and he visited the Research Triangle Park out in Raleigh,
5	North Carolina. And he looked at Duke's underground system,
6	because that was considered the premiere high-tech park, you
7	know, in the nation at that time to my understanding.
8	And he spent I don't know two or three
9	days out there reviewing that. And so we were going to
10	fashion our park and we did, as as their system was laid
11	out.
12	Q. And what did that involve? You said "fashion
13	our park," so what does that mean?
14	A. Well, he reviewed their underground system and
15	their and their switch gear, all the infrastructure to
16	the park itself and how it was served.
17	Q. And when you say "switch gear," is that the
18	circuit breakers and reclosers or something else?
19	A. No. That is the underground switch gear that
20	is located at the lot lines inside the park itself, in the
21	loop itself, the underground loop. And also it would
22	include, you know, any any infrastructure whatsoever,
23	substation, whatever it took to actually serve the facility
24	or a park such as that.

1034
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And, again, specifically what did you do for

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- 2 park?
- 3 A. Well, to my -- to my knowledge -- and, of
- 4 course, it would be more appropriate for him to answer that
- 5 question. But to my knowledge, he came back and -- and he
- 6 relayed to our engineering underground people, you know,
- what he had found, what he had seen and they discussed how
- 8 they would lay out the park accordingly.
- 9 Q. He's not going to be a witness here today
- 10 though, is he, Mr. Cobb?
- 11 A. Not to my knowledge.
- 12 Q. Do you have any information about the
- 13 satisfaction of customers in the North Carolina Park with
- 14 the service that they received?
- 15 A. No, I do not.
- 16 MS. SHEMWELL: That's all I have. Thank you,
- 17 sir.
- 18 THE WITNESS: Thank you.
- 19 JUDGE THOMPSON: Thank you, Ms. Shemwell.
- 20 Mr. May?
- MR. MAY: Thank you.
- JUDGE THOMPSON: And before we get started,
- let me point out something that I've noticed here.
- 24 Paragraph No. 3 of the agreement that's marked as Exhibit 34
- 25 incorporates by reference two letters.

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- 2 agreement that actually has those letters attached. So
- 3 there's a homework assignment for counsel, which is to find
- 4 those two letters and let's get them into the record as
- 5 well, or at least explain what's become of them.
- 6 You may inquire, Mr. May.
- 7 MR. MAY: Thank you.
- 8 CROSS-EXAMINATION BY MR. MAY:
- 9 Q. Mr. Hulse, I'm Brian May. Good to see you
- 10 again.
- 11 A. Same to you.
- 12 Q. Thank you. Sir, looking at your prepared
- 13 testimony, I would ask you first about Exhibit 15, which was
- 14 your Rebuttal Testimony. How was this prepared? Did you
- 15 prepare this testimony?
- 16 A. No, I did not. Questions were prepared for me
- 17 and I answered them accordingly.
- 18 Q. Okay. So you had no hand in the preparation
- of the actual questions?
- 20 A. Well, I gave a narrative here, I guess on the
- 21 first part, you know, through lines 32 and on page second,
- 22 but after that -- after line 8 on page 2, the questions were
- 23 posed to me by our attorney.
- Q. And then you simply answered those questions?
- 25 A. Yes, I did.

1	Q. The answers on the pages after that, $2$ , $3$ , $4$ ,
2	5 and 6, are those your verbatim answers or were those
3	adjusted or cleaned up?
4	A. No. They were my they were my verbatim
5	answers.
6	Q. Okay. And, sir, what is your it may be on
7	here, forgive me, but what is your educational background?
8	You have a bachelor of science degree in electrical power
9	engineering technology; is that correct?
10	A. Correct. From Oklahoma State University.
11	Q. Now, your position let's go back to 1988,
12	for instance, at the time of the agreement that is contained
13	in Exhibit 34. What was your position with the company at
14	that time?
15	A. At that time I was an industrial sales
16	advisor.
17	Q. Okay. And in that position as industrial
18	sales advisor, what are your duties or what are you doing?
19	A. Well, my duties were to put together proposals
20	for new and existing expanding businesses and also to
21	work and those proposals would include rate analysis,
22	incentives, if we were providing any, also assisting the

1037
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communities or park developers, you know, in trying to

Is it accurate to say then that you, in

attract industry into our service area.

Q.

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1	essence.	were	in	sales?	You	were	selling	the	products	οf

- 2 Union Electric?
- A. Yes. That's correct.
- 4 Q. And follow me on this, but as a salesman, you
- 5 were trying to entice the University of Missouri to use
- 6 Union Electric's services; is that correct?
- 7 A. That's correct.
- 8 Q. So in 1988 there were other options then for
- 9 the Research Park with respect to electrical service?
- 10 A. Yes, there was.
- 11 Q. Okay. And as part of that, you made a pitch
- 12 to the folks at the University of Missouri, the Research
- 13 Park. Correct?
- 14 A. That's correct.
- 15 Q. And you then had a hand in the preparation of
- this agreement. Correct?
- 17 A. That's correct.
- 18 Q. Okay. And I know that Mr. Carr's already
- 19 testified as to his signature. Were you in a position at
- 20 the time to sign agreements like this?
- 21 A. No, I was not.
- Q. Okay. But is it accurate then to kind of
- 23 summarize your job was to make the sales pitch, you know,
- get the customer, work with them in the creation of an
- 25 agreement and then if it was to everyone's satisfaction, you

1	bluow	present	i t	to.	in	this	case.	Mr.	Carr	for	his

- 2 signature?
- 3 A. That's correct.
- Q. Okay. So on page 1 -- and there's been some
- 5 discussion about specifically paragraph 1. And you have
- 6 this in front of you, Exhibit 34, the '88 agreement?
- 7 A. Yes, I do.
- 8 Q. I know Ms. Shemwell asked you some questions,
- 9 but there's a notation about the service will be looped to
- 10 provide a more reliable system to serve the University's
- 11 tenants. You see that?
- 12 A. Yes, I do.
- 13 Q. So obviously the reliability of the service
- 14 was contemplated by the parties, meaning by the Research
- 15 Park folks and Union Electric people?
- A. Yes, they were.
- 17 Q. Okay. And, again, Union Electric -- and it
- was your job, I guess, to try to get the University of
- 19 Missouri Curators as a customer. Correct?
- 20 A. That's correct.
- 21 Q. And there was some discussion obviously about
- 22 the need for reliable service at the park?
- 23 A. Yes, there was.
- Q. And was there also some discussion about the
- 25 nature of the business that was going to be conducted at the

1	park?
2	A. Yes, there was.
3	Q. And isn't it true that there was a discussion
4	about we'll call it a high-tech-type business that would be
5	attracted to the park?
6	A. That was that was referred to me by
7	Mr. Rick Finholt, yes, it was. I'm sorry. I strike that.
8	The the communication I had with this agreement was
9	between myself and Jim Edison. Mr. Finholt did not come on
10	the scene until about 1988, sometime in that area.
11	We originally obtained permission to serve
12	this park in 1986 and Mr. Edison and I though that was
13	implied actually, at that time there's very little
14	movement in trying to promote the growth of the park. They
15	did not have anybody on board doing that type of work until
16	1988.
17	Q. With respect to, again, the looped service
18	I don't know if this has been asked of this particular
19	witness, but is the system presently looped at the Research
20	Park?
21	A. Yes, it is. But I don't know exactly when it
22	was done.

1040 ASSOCIATED COURT REPORTERS 573-636-7551 JEFFERSON CITY, MO 573-442-3600 COLUMBIA, MO

installation of the loop system, there was a delay in

Q. Okay. And is it -- let me strike that.

Isn't it true that by delaying the

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- 1 introducing a more reliable electrical supply system to the
- 2 park?
- 3 MR. VITALE: Your Honor, let me object that
- 4 there's no foundation for the question about delay and was
- 5 there a delay, how long was the delay. I mean, to just jump
- 6 into the question, I think he should lay a little bit of
- 7 foundation.
- 8 MR. MAY: I'll be glad to do that, Judge.
- 9
  JUDGE THOMPSON: Please proceed.
- 10 BY MR. MAY:
- 11 Q. This agreement was signed in 1988. Correct?
- 12 A. Correct.
- 13 Q. And I believe your testimony was that today
- 14 you believe there is a looped system serving the park; is
- 15 that correct?
- 16 A. There was -- there was a looped system.
- 17 Again, I would refer this to the district engineer, but
- 18 there was a looped system very shortly thereafter as the
- 19 park was being -- as our -- as our cables were being
- 20 installed, our underground system.
- Q. When you say "shortly thereafter," can you
- give us a time frame?
- 23 A. No, I cannot.
- 24 Q. Now --
- 25 A. Mr. Hackman could probably.

1	Q.	in your position as a did you say sales
2	advisor, I be	elieve?
3	A.	Industrial sales advisor.
4	Q.	Yes, sir. In your position as sales advisor,
5	did you conti	nue to work with the folks at the Research
6	Park I'm t	alking about the University of Missouri
7	after the sig	gning of this agreement?
8	A.	Yes, I did.
9	Q.	Were you sort of a liaison between the company
10	and Union Ele	ectric or I'm sorry and the Research Park
11	Α.	Yes, I was.
12	Q.	Okay. So do you know, was the looped system
13	installed in	1993, do you know?
14	Α.	I really can't answer that.
15	Q.	Well
16	Α.	I really don't have I don't have any
17	recollection	of exactly when it was done. I would my
18	best guess ar	nd my best guess would be probably prior to
19	Zoltek coming	g into the park.
20	Q.	But you have no information to go on either
21	way with that	<b>:</b> ?
22	А.	No, I do not. That would have to come from

assume that in November of 1988 the looped system had not

Q. Well, let me ask you this. It's safe to

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the district.

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- 2 A. That's correct.
- 3 Q. And do you know when Zoltek came to the park?
- 4 A. Sometime in mid-'91.
- 5 Q. Okay. Well, was there a delay in the
- 6 installation of the loop system?
- 7 A. I don't know that.
- 8 MR. VITALE: Again, your Honor, let me object.
- 9 There's been no establishment as to when it was supposed to
- 10 be put in, which you have to I think get before you get to
- 11 the point of whether there was a delay.
- 12 JUDGE THOMPSON: Mr. Vitale, I believe he can
- say there was no delay if he knows that or if he doesn't
- 14 know the answer, he can say that. I'm going to allow the
- 15 question. Please proceed.
- 16 MR. MAY: Let me have one moment, your Honor.
- JUDGE THOMPSON: You may.
- 18 BY MR. MAY:
- 19 Q. Let's go to your testimony, Exhibit 15, your
- 20 Rebuttal Testimony, page 4.
- 21 A. I'm there.
- Q. Okay. Lines 17 through 19 you make a
- 23 statement that we ask David -- or Dave Spahn, then Zoltek's
- 24 plant manager, several times if our personnel could conduct
- a power quality, slash, reliability investigation inside the

- 1 plant, but Mr. Spahn refused.
- 2 Do you see that statement there?
- 3 A. Yes, I do.
- Q. Now, when did you first learn of Zoltek having
- 5 problems?
- 6 A. I don't recall specifically, but sometime in
- 7 1993.
- 8 Q. Okay. Well, let me direct your attention back
- 9 up to line 12 on page 4 -- or lines 10 through 12. The
- 10 question was, When did you first learn of Zoltek having
- 11 problems? And your answer was you were first notified by
- 12 Mr. Rumy in August of '93. Do you see that written there?
- 13 A. Yes, I do.
- Q. So does that refresh your memory?
- 15 A. Yes, it does.
- 16 Q. Were you here during the first days of this
- case when Mr. Spahn testified?
- 18 A. No, I was not.
- 19 Q. Do you have any reason to dispute that
- 20 Mr. Spahn became the plant manager in 1993?
- 21 A. No, I do not.
- Q. Okay. Now, in fact, monitoring occurred at
- the Zoltek plant in 1993; isn't that true?
- A. That's correct.
- Q. And the first monitoring was in November of

- 1 '93; is that correct?
- 2 A. That -- to my understanding.
- 3 Q. Okay. Now, just so I understand your
- 4 testimony, you said that you asked Mr. Spahn several times
- 5 to conduct such a study. Would you not agree that these
- 6 requests would have had to occur between August of '93 and
- 7 the actual monitoring, which was November of '93?
- 8 MR. VITALE: Your Honor, I'm going to object
- 9 to the form of the question. It assumes facts in evidence.
- 10 When he says "such a study," he's equating what Mr. Hulse
- 11 says in his written testimony to what happened in 1993 and I
- 12 don't think there's any evidence to that effect. In fact, I
- 13 think the evidence is to the contrary.
- MR. MAY: Well, your Honor, if I may --
- JUDGE THOMPSON: You may.
- 16 MR. MAY: -- I'll withdraw the question and
- we'll move on.
- 18 BY MR. MAY:
- 19 Q. Do you see your statement, Mr. Hulse, on
- 20 page 4, line 19 saying that, Finally, in 1993, Zoltek agreed
- 21 to allow us to conduct limited monitoring at the plant?
- 22 A. Yes, I do.
- 23 Q. And was that monitoring that you reference
- there, was that done in November of 1993?
- 25 A. I believe so, yes.

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- this problem in August of '93. Correct?
- 3 A. Correct.
- 4 Q. The monitoring was done in November of '93.
- 5 Correct?
- 6 A. Correct.
- 7 Q. Now, let's go back to your statement on
- 8 lines 17 and 18, You asked on several times -- you asked of
- 9 Mr. Spahn on several times if you could conduct such a
- 10 study. How many times did you ask between August of '93 and
- 11 November of '93?
- 12 A. I really don't know, but it was discussed
- 13 multiple times with Mr. Spahn.
- 14 Q. Okay. Did you write to Mr. Spahn and request
- 15 this?
- 16 A. No, I did not. It was during phone
- 17 conversation.
- 18 Q. Well, how many times did you ask him?
- 19 A. I really can't answer that. At least two or
- 20 three times.
- Q. Well, obviously you asked him one time,
- 22 correct, because he agreed to do it?
- 23 A. To my recollection, in August '93, when I
- 24 was -- when I asked Mr. Spahn if we could do this power
- 25 quality study, he first refused me.

1	Q. And when was that that you asked him, did you
2	say?
3	A. That was in a phone conversation we had in
4	August.
5	Q. Do you recall the date of that?
6	A. No, I do not.
7	MR. MAY: May I approach?
8	JUDGE THOMPSON: You may.
9	(EXHIBIT NO. 36 WAS MARKED FOR
10	IDENTIFICATION.)
11	BY MR. MAY:
12	Q. Mr. Hulse, I handed to you a letter dated
13	August 10th, 1993. It's been marked as Exhibit 36. Do you
14	see that before you?
15	A. Yes, I do.
16	Q. And that is a letter from you to Mr. Rumy; is
17	that correct?
18	A. That's correct.
19	Q. And it's regarding, according to your letter,
20	electric service interruption. Do you see that?
21	A. That's correct.
22	Q. Now, in this letter, could you point out to
23	me, if at all, where you asked Mr. Rumy if you could do
24	monitoring in the plant?

A. I didn't ask specifically about monitoring,

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- 2 him that our people were doing everything possible to
- 3 rectify the situation.
- We were -- the district had assigned an
- 5 engineer to -- to the Zoltek case and he was -- he was
- 6 communicating on a regular basis with them in order for us
- 7 to try to solve what their problems may be. At that time we
- 8 did not know whether the problem was on our system or on
- 9 theirs.
- 10 Q. Had you asked Mr. Spahn as of August 10th,
- 11 1993 as to whether you could do any monitoring?
- 12 A. That's probably around the time that I did ask
- 13 him.
- 14 Q. Okay. But you didn't reference any discussion
- with Mr. Spahn in this letter; is that correct?
- 16 A. Not specifically.
- 17 Q. Okay. Did you request of Mr. Rumy that you do
- some sort of monitoring at the plant in this letter?
- 19 A. No, I did not.
- 20 MR. MAY: Okay. Your Honor, I'd move for the
- 21 admission of Exhibit 36.
- JUDGE THOMPSON: Do I hear any objection to
- the receipt of Exhibit 36?
- MS. SHEMWELL: No, your Honor.
- MR. VITALE: No objection, your Honor.

1		JUDGE	THOMPSON:	Hearing no	objection,
2	Exhibit 36	is receiv	red and made	e a part of	the record of this

3 proceeding.

- 4 (EXHIBIT NO. 36 WAS RECEIVED INTO EVIDENCE.)
- 5 MR. MAY: Thank you, Judge.
- 6 BY MR. MAY:
- 7 Q. Mr. Hulse, let's go to the third paragraph of
- 8 this particular letter. You state that, After further
- 9 investigation with Wentzville district, I found three
- 10 reasons for some of the interruptions.
- Do you see that sentence?
- 12 A. I see that sentence, but that's a poor choice
- of words on my part.
- 14 Q. Let me ask you one more time. Did I read that
- 15 accurately from your letter?
- 16 A. Yes, you did.
- 17 Q. You then proceed to list what appears to be
- one, two, and three on this letter; is that correct?
- 19 A. That's correct.
- Q. Okay. Now, No. 1, you discuss the 12.5-kV
- 21 circuit breakers in the Weldon Springs substation; is that
- 22 correct?
- 23 A. That's correct.
- Q. And you note that they are up -- I'm sorry --
- 25 they're scheduled for an upgrade in the future; is that

1049

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- 2 A. That's correct.
- 3 Q. When was that done?
- 4 A. That was done in February of '95.
- 5 Q. Okay. And so in August of '93 the upgrade to
- 6 the Weldon Springs substation, that had already been
- 7 planned; is that correct?
- 8 A. I would have to refer that to the district for
- 9 a definite yes or no answer.
- 10 Q. Okay. Nonetheless, your letter states that
- 11 you had found as a reason for some of the interruptions the
- 12 fact that the 12.5-kV circuit breakers in that substation
- were near full load capacity; is that correct?
- 14 A. Well, again, you're saying found reasons
- 15 for -- for these -- for some of these interruptions. And it
- 16 should have been stated that this may have been some of the
- 17 reasons for the interruptions. So I, again --
- 18 Q. So you're saying that you have the wrong
- 19 choice of words here?
- 20 A. Yes, I do.
- Q. When did you note that you had used the wrong
- 22 choice of words?
- 23 A. Only when we had gotten to the point of where
- we are today or our first testimony.
- Q. Did you ever write to Mr. Rumy after this

- letter and inform him you'd used the wrong choice of words?
- 2 A. No, I did not.
- 3 Q. So you left the impression with Mr. Rumy that,
- 4 in fact, you had found three reasons?
- 5 A. That wasn't my intention.
- 6 Q. Well, I'm asking though. You did nothing to
- 7 change that; is that correct?
- 8 A. No, I did not.
- 9 Q. Okay. Let's go to paragraph 2. Within the
- 10 next two weeks additional single-phase reclosers will be
- installed on the north feeder leading to Weldon Springs
- 12 substation. This installation should help reduce line
- 13 exposure to the Missouri Research Park.
- 14 Did I read that correctly?
- 15 A. Yes, you did.
- 16 Q. Now, with respect to those things, were those
- done within the next two weeks?
- 18 A. I don't know specifically. It's been too
- 19 long. The district will be able to answer that question.
- 20 Q. I'm going to hand to you a copy of your
- 21 deposition.
- MR. MAY: If I may, your Honor.
- JUDGE THOMPSON: You may.
- 24 BY MR. MAY:
- Q. And if you would look at page 34 of your

- deposition dated May 23, 2001 that I've handed to you --
- JUDGE THOMPSON: Do you have a copy of that
- 3 for me?
- 4 MR. MAY: Yes, I do, your Honor.
- JUDGE THOMPSON: Well, don't give me the one
- 6 you're using.
- 7 MR. MAY: No. I've got mine. That's okay.
- 8 If you can bear with me a second, Judge.
- 9 JUDGE THOMPSON: Certainly.
- 10 BY MR. MAY:
- 11 Q. Mr. Hulse, do you recall me taking your
- deposition in May of 2001?
- 13 A. Yes, I do.
- 14 Q. Okay. And have you had a chance to look at
- 15 page 34 of your deposition?
- A. Yes, I have.
- 17 Q. All right. Specifically line 19, do you see
- 18 the question there?
- 19 A. Yes, I do.
- Q. And I'll read that to you. These reclosers
- 21 you reference in your August 10th letter, were those ever
- 22 removed? I should step back. Were they ever installed,
- 23 first of all?
- 24 Answer on line 22, Yes, they were installed.
- 25 Question: Do you know when they were

1	installed?	Your letter says
2		Answer: It was late it was in late '93.
3		Do you see that?
4	A.	Yes, I do.
5	Q.	So if I understand that correctly, you're
6	saying thos	e reclosers referenced in your letter were, in

- 7 fact, installed in late 1993; is that correct?
- 8 A. That's what I testified, yes.
- 9 Q. Yes, sir. So it would not have been within
- 10 the two weeks that you had mentioned in your letter?
- 11 A. That's correct.
- 12 Q. Now, let's move on to page 5 of your
- 13 testimony. I'm sorry. Let's go to page 4 on line 21.
- 14 You're referencing a meeting that was held in December of
- 15 1993. Do you see that on line 21 of page 4?
- 16 A. Yes, I do.
- Q. Okay. And then the last sentence on there, We
- discussed existing electric loads of the park and, turning
- 19 over to page 5, what possible strategies should be pursued
- when additional loads came on the system.
- Do you see that? And then you go on to say,
- We discussed the upgrade to the Weldon Springs substation
- and how another 12.47-kV feeder would be installed when the
- 24 electric load warranted.
- Do you see that?

- 1 A. Are you referring to page 21 of the deposition?
- 3 Q. I'm sorry. Page 5 of your testimony.
- 4 A. Page 5.
- 5 Q. Yes. It begins on page 4, continues to
- 6 page 5.
- 7 A. Still haven't found it. Are you referring
- 8 to --
- 9 MR. MAY: May I approach, your Honor?
- JUDGE THOMPSON: You may.
- 11 THE WITNESS: Are you talking about rebuttal?
- 12 Oh, okay.
- 13 BY MR. MAY:
- 14 Q. Again, on page 4, line 21 you reference a
- meeting that was held in December of '93. Do you see that?
- A. That's correct.
- 17 Q. Okay. And then on page 5 at that meeting, if
- 18 I understand your testimony, that there was a discussion
- 19 with respect to the upgrade to the Weldon Springs
- 20 substation. Do you see that?
- 21 A. Yes, I do.
- Q. Okay. Now, those things that are referenced
- in your August 10th letter, specifically the 12.5-kV, No. 1,
- 24 do you see that?
- 25 A. The 12.5-kV --

1	Q.	Circuit breakers in the Weldon Springs
2	substation	
3	Α.	Yes.
4	Q.	on the letter
5	Α.	Yes, I do.
6	Q.	is that what you're referencing in your
7	testimony?	
8	Α.	Yes, it is.
9	Q.	And that would include another 12.47-kV. Is
LO	that the same	as 12.5-kV in your letter?
L1	Α.	Yes, that's correct.
L2	Q.	So in December of '93, that work had yet to be
L3	done; is that	correct?
L4	Α.	That's correct.
L5	Q.	On line 7 of your testimony on page 5, this is
L6	your Rebuttal	Testimony. Do you see that line 7?
L7	Α.	Yes, I do.
L8	Q.	We had I'm sorry We purchased additional
L9	equipment for	the Weldon Springs substation upgrade four
20	months ahead	of schedule.
21		Do you see that?
22	Α.	Yes, I do.
23	Q.	Is it your testimony today then that the
24	equipment need	ded for the Weldon Springs substation was
25	purchased four	months ahead of schedule?

1	A. No. That's not no. What happened was is
2	that the equipment had already had been purchased much
3	earlier and it just so happens it was available for us at
4	that time. And they shipped it on in and then we went ahead
5	and knowing we had to upgrade that substation for future
6	load considerations, we went ahead and installed the
7	equipment earlier.
8	We were trying to be receptive. This was an
9	attempt for us to be receptive to Mr. Zoltek to or
10	Zoltek, I should say, Corporation, to clearly tell them that
11	we are trying to do everything we can to upgrade our system
12	and make certain that we are not providing he's not
13	getting any problems from our system. This was just to keep
14	him updated that we were trying to do everything we could in
15	order to assist him.
16	Q. So just to be clear then, so I understand you,
17	you're saying that the equipment was not purchased ahead of
18	schedule?
19	A. The equipment was no, it was not purchased
20	ahead of schedule. It was available for us.
21	Q. And it, in fact, had been ordered and
22	purchased prior to this you know, prior to 1993 even;
23	isn't that correct?

prior to 1993. I don't know.

A. Well, I can't answer that. I don't know about

24

25

1	Q. Okay. You heard Mr. Carr's testimony earlier
2	this morning, did you not?
3	A. Yes, I did.
4	Q. And did you believe that installing this
5	equipment or upgrading this substation would be of a benefit
6	to Zoltek?
7	A. Any time you upgrade any system, it's always a
8	benefit, you know. But, again, we were we were upgrading
9	this this system because of the continual growth in that
10	area.
11	Q. So the upgrade was because of the growth, it
12	was not because of the problems Zoltek was experiencing?
13	A. That's correct.
14	Q. On page 5 still of your testimony, the
15	question on line 9 is, Did there come a time when Zoltek's
16	treatment of AmerenUE I assume that should say make
17	cooperation impossible.
18	Do you see that?
19	A. Yes, I do.
20	Q. And in your answer, lines 11 through 20, you
21	reference a meeting that was held in December of '93. Do
22	you see that?
23	A. That's correct.

1057

became irate and verbally abusive and walked out of the

And at that meeting you allege that Mr. Rumy

24

25

Q.

- 1 meeting. Is that what your testimony says?
- 2 A. That's correct.
- 3 Q. And then you state, and I'm quoting, on line
- 4 19, In my opinion, after this meeting, our relationship
- 5 deteriorated quickly.
- 6 Do you see that?
- 7 A. Yes.
- 8 Q. So are you suggesting that this meeting -- it
- 9 didn't go well?
- 10 A. No, it did not go well at all.
- 11 Q. Okay. Now --
- 12 A. Mister --
- Q. I'm sorry.
- 14 A. Mr. Rumy was insistent that he felt like he
- deserved 100 percent continuity of service. And we
- 16 explained to him that is not possible due to acts of God or
- 17 people hitting a pole, which would cause -- which caused
- 18 incidents to occur on our system. And we tried to explain
- 19 that and he wasn't satisfied with our responses.
- Q. Did this meeting occur on December 15th of
- 21 1993?
- 22 A. I believe that's correct, yes.
- 23 Q. And was Mr. Thaxton, district manager,
- 24 present?
- 25 A. Yes, he was.

1	Q.	Mr. Flanagan from your company, Mr. Hunt?
2	A.	Yes.
3	Q.	Mr. Bradley?
4	A.	Yes.
5	Q.	And obviously you were present at the meeting. $% \left( 1\right) =\left( 1\right) \left( 1\right)$
6	Correct?	
7	A.	Correct.
8		MR. MAY: Your Honor, may I approach?
9		JUDGE THOMPSON: You may.
10		(EXHIBIT NO. 37 WAS MARKED FOR
11	IDENTIFICATION	N.)
12	BY MR. MAY:	
13	Q.	Mr. Hulse, I've provided to you an exhibit
14	what's been ma	arked Exhibit 37. This is a copy of a document
15	that says at	the top Memo to the File; is that correct?
16	A.	That's correct.
17	Q.	And it's regarding, according to the memo,
18	meeting with	Zoltek, 9:00 a.m., December 15th, 1993. Do you
19	see that?	
20	A.	Yes.
21	Q.	And this was drafted by you. Correct?
22	A.	Yes.
23	Q.	And on the second page, I don't want to say
24	you signed it	, but you put your name assigned your name
25	to this memo;	is that correct?

1	Α.	That's correct.
2	Q.	And I believe you listed those

4 A. Yes.

received copies?

3

- 5 Q. I want you to turn to page 2, the last
- 6 paragraph. I'm going to read from this. I was personally

people that had

- 7 very appreciative of efforts that Art, Jim, Randy and Ed
- 8 demonstrated in this meeting. Without their participation,
- 9 I feel we would have had an even tougher time trying to
- 10 explain our position to Mr. Rumy.
- 11 He's a very persistent individual and combined
- 12 efforts of parties involved helped improve our relationship
- 13 with Mr. Rumy. Also, this meeting provided Mr. Rumy with a
- 14 better insight to today's problems faced by utility company
- in providing quality service.
- Is that what your memo says, sir?
- 17 A. Yes, it does.
- 18 Q. Look on the first page, if you would, please.
- 19 The third paragraph on page 1. Near the bottom there's some
- $\,$  20  $\,$  discussion about the express feeder. Do you see that at the
- 21 end of paragraph 3 on page 1?
- 22 MR. VITALE: Which paragraph -- you're using
- the attending as a paragraph?
- MR. MAY: Paragraph No. 3 would be Mr. Rumy's
- 25 letter to Mr. Bill Carr.

1060

	MAY:

- 2 Q. And go to the last two sentences or three
- 3 sentences. Do you see that, sir?
- 4 A. I see that, but I don't see anywhere where it
- 5 says anything about express feeder.
- 6 Q. Let's look at this then. Go to the sentence
- 7 there in the third paragraph, Alternative to the 34.5-kV
- 8 feeder serving the Weldon Springs substation was
- 9 accomplished in late October '93.
- 10 Also, during light load conditions, other
- 11 loads fed off the 12.5-kV serving the Missouri Research Park
- 12 can be switched to other 12.5-kV feeders, thus reducing the
- 13 line exposure. However, during the heavy winter and summer
- load conditions, this cannot be done.
- Do you see that in your memo?
- A. That's correct.
- 17 Q. Is this referencing the express feeder
- 18 service?
- 19 A. No. That's not referencing express feeder.
- 20 That's referencing what we can do to reduce line exposure to
- 21 the -- to customers beyond the circuit that's serving the
- 22 Missouri Research Park.
- 23 Q. So during the heavy winter and summer load
- 24 conditions, there was no switching done; is that correct?
- 25 A. That's correct.

1	O. So	the	switching,	if	Ι	understand	vour	memo.

- 2 reduced line exposure; is that correct?
- 3 A. That's correct.
- 4 Q. And reducing line exposure, does that improve
- 5 the reliability of the service?
- 6 A. It could.
- 7 Q. Let's continue on to page 2. There's
- 8 discussion there in the middle of that paragraph about the
- 9 service being provided to the Weldon Springs substation. Do
- 10 you see that?
- 11 A. Yes, I do.
- 12 Q. And there's discussion about changing from a
- switch from -- I believe that's supposed to be McClay; is
- 14 that right?
- 15 A. I believe that's correct.
- 16 Q. I think your memo may have been incorrect in
- 17 that regard; is that correct?
- 18 A. I believe so.
- 19 Q. McClay to -- I'm sorry -- switch from McClay
- 20 from Point Prairie. Do you see that?
- 21 A. Yes, I do.
- 22 Q. And was that designed to improve the
- 23 reliability?
- A. All that was -- all that was designed to do is
- 25 to reduce the line exposure.

1	Q.	Okay. Well, look at your memo there. I'm
2	going to read	from it. Correct me if I'm wrong. The
3	sentence begi	nning with, This will result in less 34.5-kV
4	line exposure	to the Weldon Springs sub and should improve
5	the quality o	f service to the Research Park.
6		Do you see that?
7	Α.	Yes, I do. But that is no guarantee.
8	Q.	Let's go to page 6 of your testimony.
9	А.	Now, are you back to the rebuttal?
10	Q.	Rebuttal Testimony, yes, sir.
11	Α.	Okay. I'm there.
12	Q.	Yes. The question on page 6 is regarding
13	whether you b	elieved or believe AmerenUE has made its best
14	efforts to as	sist Zoltek and provide superior electrical
15	service; is t	hat correct?
16	Α.	That's correct.
17	Q.	And on line 5 you state that, Ultimately,
18	Zoltek and sp	ecifically and Zsolt Rumy decided to take an
19	adversarial p	osition and file suit against AmerenUE.
20	Needless to s	ay, this made further cooperation virtually
21	impossible.	
22		Do you see that?
23	A.	Yes, I do.

decided to file suit against AmerenUE?

So do you know when Mr. Rumy and Zoltek

24

25

Q.

1	A. I don't know specifically. Somewhere around,
2	I believe, in '96 so.
3	Q. So are you saying that after '96, cooperation
4	between Zoltek and AmerenUE was impossible since 1996?
5	A. Well, what I was saying is it definitely
6	hampered our efforts. As we have done with a lot of
7	customers, which you'll hear the testimony later from
8	Mr. Wakeman, we were only to my knowledge, only able to
9	monitor up until this point inside the motor load control
LO	center of his facility, which is right where our service
L1	comes into his building.
L2	With other power quality investigations that
L3	we have done, we have we have always had the full
L4	cooperation of the customer and we've been able to go in and
L5	they've been able to communicate to us what specific piece
L6	of equipment they're having problems with. And then we
L7	would, in turn, install monitoring equipment on those pieces
L8	of equipment and try to determine, you know, what the
L9	situation is.
20	Q. Was such monitoring done in the year 2000?
21	A. I can't answer that. I I have no knowledge
22	of what the exact monitoring was done in 2000.
23	Q. Do you know of any monitoring that might have
24	been done in 1997?

A. No, I do not.

25

- 1 Q. Or 19--
- 2 A. But it was not -- but it was not -- I know
- 3 that we did not -- we were not allowed inside the facility
- 4 in 1993 when we asked to do so.
- 5 Q. Well, you're not familiar with any monitoring
- 6 that might have been done in 1997, for example; is that
- 7 correct?
- 8 A. That's correct.
- 9 Q. Yet you know what kind of monitoring wasn't
- done. Is that what you're saying?
- 11 A. I know what was done up through 1995
- 12 specifically.
- Q. Okay. Do you know what monitoring was done in
- 14 1994?
- 15 A. No, I do not.
- 16 MR. MAY: I don't think I have anything else
- 17 at this time, Judge.
- JUDGE THOMPSON: Thank you.
- 19 MR. MAY: Oh, I do. One other question,
- 20 Judge. I'm sorry.
- 21 BY MR. MAY:
- 22 Q. I'd like to ask you questions about Exhibit
- 23 35, which is your Supplemental Rebuttal Testimony.
- MR. MAY: And, your Honor, just for the
- 25 record, I'm not waiving my objections in any way by asking

- 1 those questions.
- JUDGE THOMPSON: I understand. Please
- 3 proceed.
- 4 MR. MAY: Thank you.
- 5 BY MR. MAY:
- 6 Q. I've not had a lot of time to look at your
- 7 Supplemental Rebuttal Testimony. I wanted to ask you a few
- 8 questions about it, if I may. Do you have that before you?
- 9 A. Yes, I do.
- 10 Q. Okay. These are questions regarding -- that
- 11 are asked here -- first of all, who prepared this particular
- 12 document?
- 13 A. Well, it was -- it was prepared -- it was
- 14 prepared by our attorneys.
- Q. And are these your answers?
- 16 A. Yes, they are.
- 17 Q. And were you present during the hearing the
- last time we were up here?
- 19 A. No, I was not.
- 20 Q. Okay. Now, but these are questions that are
- 21 asked about your knowledge or your discussions with someone
- 22 at Zoltek; is that correct?
- 23 A. That's correct.
- Q. You don't have any knowledge about others at
- Union Electric, whether they had discussions?

1	Α.	Be more specific. What are you saying?
2	Q.	Well, again, let me just I'll rephrase the
3	question. Yo	u were asked about your discussions with the
4	folks at Zolt	ek; is that correct?
5	A.	That's correct.
6	Q.	Okay. You've also attached to this
7	Schedule 1, w	hich you've identified as information
8	concerning Zo	ltek's electric load requirements
9	A.	That's correct.
10	Q.	correct?
11		So this is Zoltek telling Union Electric
12	through you w	hat its load requirements were; is that
13	correct?	
14	A.	What their estimated loads were, yes.
15	Q.	And you received that in April of '91?
16	A.	That's correct.
17		MR. MAY: Okay. Nothing further, Judge.
18		JUDGE THOMPSON: Thank you. Let's see. We're
19	at about seve	n minutes to noon, so I think we will continue
20	with you, Mr.	Hulse, after the lunch break. We will be in
21	recess until	1:30 p.m.
22		(A RECESS WAS TAKEN.)
23		JUDGE THOMPSON: Go back on the record.
24	Remind you the	at you're still under oath. Come to order,
25	please. Get	a quick message out to the Commissioners that

- 1 we're about to recommence here. All right. Now we're ready
- 2 for questions from the Bench, I believe.
- 3 OUESTIONS BY JUDGE THOMPSON:
- Q. Now, Mr. Hulse, your background, I believe, is
- 5 engineering; is that correct?
- 6 A. Well, I have a technology degree in
- 7 engineering from Oklahoma State University.
- 8 Q. Okay. And since you've been working for
- 9 Ameren -- how long have you worked for Ameren?
- 10 A. Total, I've been -- for Ameren since 1984.
- 11 Prior to that, I worked for Missouri Power and Light. I
- 12 began -- I began work -- employed in 1977.
- 13 Q. All right. And that was with Missouri Power
- 14 and Light?
- 15 A. Correct.
- Q. A subsidiary of Ameren?
- 17 A. A subsidiary of Ameren.
- 18 Q. All right. And my understanding is you've
- 19 been involved with the service to Zoltek from the very
- 20 beginning?
- 21 A. That's correct.
- 22 Q. So were you involved in discussions with --
- 23 first of all, you were clearly involved in discussions with
- the University; is that correct?
- 25 A. That's correct.

1	Q. Because your initials appear on that
2	agreement. Now, are you familiar with the two missing
3	letters that are referenced in that agreement in which
4	evidently we've not seen?
5	A. I see it referenced, sir, but I'm I'm not
6	familiar I'm not familiar of what those letters actually
7	pertain to.
8	Q. These are letters fro m a James Edison or
9	to a James Edison. Correct?
10	A. That's correct. That's what it refers to.
11	Q. And who is James Edison?
12	A. James Edison was the architect for the
13	University of Missouri at the time negotiations began.
14	Q. But are you able to tell me that you at least
15	did not write those letters?
16	A. No, I can't even tell you that, sir.
17	Q. You may have?
18	A. I may have.
19	Q. Okay. And given your engineering background,
20	were you involved in designing the system?
21	A. I only had some discussions, you know, with
22	the district engineer at that time. Because, again, as I
23	referred to in my earlier testimony, that he was responsible
24	for going out to the Research Triangle Park and looking at
25	how Duke had their system installed at a high-tech park and

1069 ASSOCIATED COURT REPORTERS 573-636-7551 JEFFERSON CITY, MO

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1	t.hen	coming	back	and	talking	to	mvself	as	well	as	to	t.he

- 2 district manager and others about recommendations and how it
- 3 would be designed.
- 4 Q. Okay. So what exactly was your role in the
- 5 transaction?
- 6 A. My role in the -- my role in the transaction
- 7 was -- as far as the agreement, sir?
- 8 Q. Well, yeah. We're talking now about the
- 9 transaction between the University of Missouri and Ameren
- 10 with respect to this Research Park. What was your role in
- 11 that transaction?
- 12 A. Well, my -- my role was simply to convey to --
- as a PR and liaison person, to convey to the Missouri
- 14 Research Park individual, which in this case was Mr. Edison
- 15 that AmerenUE or Union Electric at that time was -- was
- 16 capable of providing adequate electric service to the fa--
- 17 to the park.
- 18 Q. So you were essentially sort of -- it was your
- 19 job to be the go-between between personnel at the district
- 20 and the customer; is that correct?
- 21 A. Correct.
- Q. You were something of a salesman?
- 23 A. Correct.
- Q. And your job was to gather specific and
- 25 detailed information about what the customer wanted, carry

that back to the district, discover whether or not	that
--	------

- 2 could be provided and, if so, at what cost and that sort of
- 3 thing; is that correct?
- 4 A. That's correct.
- 5 Q. And then convey that back to the customer.
- 6 Okay. So if there were any representations to the
- 7 University or any requests by the University for power that
- 8 was a power supply that was particularly reliable, you would
- 9 have been aware of that, isn't that so?
- 10 A. That's correct.
- 11 Q. And do you recall whether or not there was a
- 12 request by the University for power that was more reliable
- 13 than normal?
- 14 A. No. I -- no, not to my knowledge.
- 15 Q. Okay. And in return, coming from the other
- 16 side, are you aware as to whether or not there was any
- 17 representation by Union Electric to the University that the
- power would be more reliable than normal?
- 19 A. No
- Q. Okay. And I'm looking at that agreement,
- which is marked as Exhibit 34, and I'm looking at paragraph
- No. 1 and the last sentence, The service will be looped to
- 23 provide a more reliable system to serve the University's
- 24 tenants.
- 25 Clearly at some point a provision for a more

1	reliable	system	did	become	part	of	the	agreement.	Would	you
---	----------	--------	-----	--------	------	----	-----	------------	-------	-----

- 2 agree with me?
- 3 A. Yes, I would.
- 4 Q. And do you know how that happened?
- 5 A. Well, at the -- at this time, you know, we
- 6 first started these negotiations, I do refer to it as a
- 7 looped -- looped -- a loop feed or service and, you know, we
- 8 had either radial feed or you have a loop feed. And it was
- 9 an understanding that as the park was growing -- would grow,
- 10 we would provide, you know, whatever it took as far as the
- 11 loop -- the loop feed to handle the park's needs.
- 12 Q. Okay. And a looped service, I assume, was
- believed to be more reliable than a radial?
- 14 A. The -- again, a loop feed -- the principal
- 15 reason for a loop feed is for you to shorten your duration
- of your outages.
- 17 Q. Okay. And if you know, was the Triangle
- 18 Research Park in the Carolinas, did that have a looped
- 19 service?
- 20 A. Yes, it did.
- 21 Q. And that served as something of a model for
- 22 this park?
- 23 A. That's correct.
- Q. Okay. Now, again, if you know, was this
- looped service the most reliable that was possible or was it

1	simply	one	alterna	tive?

- 2 A. Well, it would be -- in my opinion, it would
- 3 be one alternative.
- Q. Okay. In other words, if Zoltek had been --
- 5 or if the University had been willing to pay more, and maybe
- 6 they were, I don't know, but let's say -- was there a more
- 7 reliable alternative available for a higher price?
- 8 A. Well, there always is if the price is -- if
- 9 the customer's willing to pay the price. I mean, you
- 10 could -- you could -- you could install a generator, you
- 11 know, right there -- a combustion turbine right there beside
- 12 the plant and serve them directly off of that, I mean,
- 13 but --
- Q. But the price would be quite high?
- 15 A. That's correct.
- 16 Q. And Ameren wouldn't undertake to do that
- 17 unless the customer's willing to front some portion of the
- 18 cost; isn't that correct?
- 19 A. That's correct.
- 20 Q. And, in fact, what proportion did Ameren want
- 21 the customer to front, 100 percent?
- 22 A. In something like that?
- Q. Yes, sir. If you know.
- 24 A. Well, I would -- I can only speculate, but I
- would think so, yes.

1	Q. Okay. For example, the fee that the
2	University paid for this loop service that's referred to in
3	Exhibit 34, to your knowledge, if you know, was that
4	100 percent of the additional cost over a normal service?
5	A. No. That the cost that they paid was a
6	difference between overhead versus an underground system.
7	Q. So they paid to have it installed underground?
8	A. Correct.
9	Q. If they asked for an overhead service, Ameren
10	would have bore the cost of bringing that service to the
11	park
12	A. Well
13	Q as far as you know?
14	A. As far as I know, yes.
15	Q. Okay. So the extra was for the particular
16	configuration they wanted?
17	A. Correct.
18	Q. Very well. Now, do you know details of
19	exactly how the service was provided in terms of
20	transformers and that sort of thing, weight of cable and
21	A. No, I do not.
22	Q. You do not. Is there anyone who will testify
23	who you believe does know that sort of information?
24	A. I believe if will be bored out by the district
25	people.

1	Q.	Okay.	Now,	I	understand	that	when	this	deal	
---	----	-------	------	---	------------	------	------	------	------	--

- began, there was a different district engineer; is that
- 3 correct?
- 4 A. That's correct.
- 5 Q. What was his name again?
- A. Fred Hampton.
- 7 Q. Have there only been two district engineers or
- 8 have there been more than two since this thing started?
- 9 A. Well, there's been another. There were two
- 10 engineers in the district when this was initially started.
- 11 Fred Hampton was the supervising district engineer and then
- 12 Randy Hunt, which was an engineer also.
- 13 Q. And there's now someone yet again; isn't that
- 14 correct?
- 15 A. That's correct. Mr. Jeffrey Hackman is now
- 16 the supervising engineer.
- 17 Q. And --
- 18 A. Which will testify.
- 19 Q. -- other than those three names, has there
- 20 been anyone else as an engineer?
- 21 A. Well, there's Serin Meta (phonetic spelling),
- 22 which is now a district engineer that also works in
- 23 Wentzville district.
- Q. Okay. Now, we've talked about representations
- and agreements between the University and Ameren. And I

1	aness	Т	have	one	follow-up	question	there	TΟ	vour
_	quess	_	IIa v C	OIIC	TOTIOW up	quescron	CIICI C.	10	your

- 2 knowledge, was there any other agreement in addition to the
- 3 one in Exhibit 34?
- A. Not to my knowledge, no.
- 5 Q. There was not any other verbal agreement that
- 6 you know of?
- 7 A. No.
- 8 Q. Okay. Now, speaking with respect now to
- 9 Zoltek and Ameren, are you aware of any -- were you involved
- 10 in the beginning when Zoltek first began thinking about or
- 11 investigating the possibility of moving their plant to this
- 12 Research Park?
- 13 A. Yes, I was.
- 14 Q. And did you have conversations with Zoltek
- 15 representatives at that time?
- 16 A. Yes, I did.
- 17 Q. And do you recall whether any kind of
- 18 representations were made by Zoltek as to the reliability or
- 19 quality of the power that they expected?
- 20 A. Not to my knowledge. Not -- not as far as any
- other customer would expect as far as service.
- 22 Q. So would I be correct that in these
- 23 discussions with Zoltek, that you revealed to them the
- specifics of the power supply that did exist?
- 25 A. That's correct.

1076 ASSOCIATED COURT REPORTERS

573-636-7551 JEFFERSON CITY, MO 573-442-3600 COLUMBIA, MO

1	Q.	And did they ever say do you recall them
2	saying to y	ou that that wouldn't be sufficient?
3	A.	No, I do not.
4	Q.	Do you recall any concerns that were expressed
5	to you abou	t the reliability?
6	Α.	No, I do not.
7	Q.	Prior to first locating, did they ask Ameren
8	to improve	the power supply in any way?
9	Α.	No, they did not.
10	Q.	And if they had, would you know?
11	Α.	I would have thought the district would have
12	communicate	d that to me, had there been additional
13	conversatio	ns.
14	Q.	Did you serve as the salesman
15	Α.	Yes, I did.
16	Q.	representative in that transaction too?
17	Α.	Yes, I did.
18	Q.	Okay. So you would expect to know the details
19	of what the	customer wanted?
20	Α.	That's correct.
21	Q.	Okay. And you've been involved in this ever
22	since? You	're still involved in it now; is that correct?
23	Α.	Yes, I am.
24	Q.	So do you recall when you first became aware

of some lack of satisfaction on the part of Zoltek?

25

1	A. Well, it had to be around in in late mid
2	to late '93 is when I got a call from Mr. Zoltek
3	Mr. Zsolt, Zsolt Rumy.
4	Q. And do you remember what the substance of that
5	call was?
6	A. Just that he was dis dissatisfied with our
7	electric service, and he had mentioned he'd had several
8	incidents. And I told him in the conversation that I was
9	unaware of the situation and encouraged him to contact me in
LO	the future if this if this continued. And I told him I
L1	would talk to the district and we would see what we could do
L2	to help remedy his situation.
L3	Q. Now, when you say "incidents," in fact, was he
L4	complaining about outages?
L5	A. He was determin he was stating that they
L6	were outages.
L7	Q. Okay. And did you carry on any kind of
L8	investigation as to whether outages had occurred?
L9	A. I contacted the district and talked to them
20	about about the about the situation. And they relayed
21	to me that they were not aware of anyone else having
22	having problems such as this.
23	Q. So through this whole period when there were

and efforts by Ameren to improve the service, you were

ongoing discussions, I gather further complaints from Zoltek

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- 1 involved throughout?
- 2 A. I was involved at least up through '95 to '96,
- 3 somewhere in that area, yes.
- 4 Q. Did your duties change then?
- 5 A. Well, my -- actually, the district assigned an
- 6 engineer to directly communicate with Zoltek Corporation.
- 7 Q. Now --
- 8 A. Because they were much closer. I was located
- 9 here in Jefferson City and, of course, they were located
- 10 right there in Wentzville district.
- 11 Q. To your knowledge and in your experience, is
- 12 it unusual for Ameren to assign an engineer directly to a
- 13 customer in that way?
- 14 A. In my opinion, yes. But, again, it was a
- 15 further attempt by -- by Union Electric to try to do
- 16 everything that we possibly could do to determine why these
- incidents were occurring.
- 18 Q. Are you personally aware of any other
- 19 occasions when an engineer was directly assigned to a
- 20 customer in that way?
- 21 A. No, I'm not.
- Q. So, to your knowledge, it's a unique
- 23 arrangement?
- 24 A. Yes, I would say so.
- Q. And do you recall the identity of the engineer

1	that was assi	gned?
2	Α.	His name?
3	Q.	Yes, sir.
4	Α.	It was Randy Hunt.
5	Q.	Randy Hunt. Okay. And I believe you
6	indicated	is Mr. Hunt still employed by Ameren now?
7	Α.	Yes, he is.
8	Q.	And what's his capacity now?
9	Α.	I'm not certain specifically. I know he's a
10	district engi	neer in Berkeley district, but I
11	Q.	So he's been promoted and transferred?
12	Α.	Yes.
13	Q.	Okay. Very well. And do you happen to know
14	whether some	other engineer has been assigned to Zoltek in
15	his place?	
16	Α.	No. I'd have to refer that question to the
17	district.	
18	Q.	Now, I think you've indicated that there was a
19	meeting at so	ome point, perhaps 1993, where Mr. Rumy became
20	extremely ups	set and walked out of the meeting?
21	Α.	That was in December of '93.
22	Q.	Of '93?
23	Α.	Uh-huh.

So it was prior to the time that an engineer

24

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Q.

was assigned?

1	A.	Yes.
_	Α.	100.

- Q. And I'm sorry if this repeats your testimony,
- 3 but do you recall specifically what it is Mr. Rumy became
- 4 upset about?
- 5 A. Well, in my opinion?
- 6 Q. Yes, sir, in your opinion.
- 7 A. Mr. Rumy expected or felt that Ameren -- or I
- 8 should say Union Electric would provide 100 percent
- 9 continuity of service.
- 10 Q. In other words, service that was never
- 11 interrupted?
- 12 A. Never interrupted.
- 13 Q. Okay. And -- and --
- 14 A. And we went ahead and explained to him about
- 15 incidents of acts of God, incidents of pedestrian -- someone
- 16 hitting a pole, you know, and explaining to him that there
- 17 would be sags, fluctuations as a result of this -- of these
- 18 occurrences and that that was just part of how an electrical
- 19 system operates and functions. And he just, in my opinion
- and in the people there from the company, was not willing to
- 21 accept that and became very irate about it.
- 22 Q. And your testimony with respect to Mr. Rumy,
- is that essentially a summary of various things you heard
- 24 him say?
- 25 A. Yes, it is.

1	Ω	Now	there	was	testimony	from	the	witness	who
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- 2 preceded you, Mr. Carr, about multiple requests by Ameren to
- 3 Zoltek to permit access for an investigation to determine
- 4 the cause of the problem. Were you here for that testimony?
- 5 A. Yes, I was.
- 6 Q. And you heard that testimony?
- 7 A. Yes, I did.
- 8 Q. Did you personally make any such requests to
- 9 Zoltek?
- 10 A. I -- I made -- I made some -- I made the
- 11 request and -- in a phone conversation with a Mr. David
- 12 Spahn back in '93 saying that we would be -- we would be
- 13 willing to come and to evaluate his system. Now, it was in
- 14 a phone conversation.
- 15 Q. I understand. But, nonetheless, you did make
- 16 it to Mr. Spahn?
- 17 A. Yes. Yes, I did.
- 18 Q. And do you recall what Mr. Spahn's response
- 19 was?
- 20 A. Mr. Spahn was not willing at that time to
- 21 allow us to do that because of concerns of confidentiality
- issues with their plant.
- 23 Q. In other words, there were things going on in
- the plant that he didn't want you to know about?
- 25 A. That's correct. I think it -- in my opinion,

- 1 I think it was -- it was because of patents. I mean, it was
- 2 a -- it was a new process that they were designing and
- 3 constructing and beginning to operate, yes.
- 4 Q. So based on your experience with Zoltek, did
- 5 they seem very concerned about the security confidentiality
- 6 of their processes?
- 7 A. That was my opinion, yes.
- 8 Q. Okay. And other than that one occasion when
- 9 you had a conversation with Mr. Spahn, did you have any
- 10 other -- did you at any other time request access to their
- 11 facility?
- 12 A. Did I specifically ask, is that what you're
- 13 saying?
- 14 Q. Yes, sir. Did you personally do so?
- 15 A. Well, I just recall that I know it -- I
- 16 mentioned it to them at least on those two or three times,
- 17 you know, during that time frame. And -- and then we were
- 18 at least allowed to provide some monitoring at their service
- 19 entrance and their utility room finally in November.
- 20 Q. And is it possible that there were other Union
- 21 Electric employees also making similar requests?
- 22 A. I would rather doubt it.
- Q. You were the contact person?
- 24 A. Yes, I was.
- Q. Okay. And did Mr. Carr ultimately supervise

1	you in	your a	ctivities?				
2		A.	Yes, he did.				
3		Q.	So he would have received reports of what you				
4	were doing with respect to Zoltek?						
5		A.	That's correct.				
6		Q.	Okay. Now, eventually, as I understand it,				
7	Zoltek did permit some sort of monitoring?						
8		A.	That yes, he did.				
9		Q.	Do you recall what the nature of this				
10	monitoring was?						
11		A.	Which incident? November of '93 or later on?				
12		Q.	Let's take November of '93 first.				
13		A.	Well, November of '93 Mr. Ed Bradley, which				
14	has te	stified	earlier, did was allowed in their utility				
15	room and did and did some monitoring on the secondary bus						
16	of their system, the 480-volt bus.						
17		Q.	Now, if you know, the monitoring that Ameren				
18	was pe	rmitted	to do what did you say, September of '93?				
19		A.	November.				
20		Q.	November of '93, was that as extensive as				
21	Ameren	chose;	in other words, was Ameren permitted as much				

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24

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access?

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access as Ameren wanted or was Ameren permitted only partial  $% \left( 1\right) =\left( 1\right) +\left( 1\right$ 

were only permitted to monitor inside the utility room. We

A. We were only permitted -- my understanding, we

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- 2 monitor on specific pieces of equipment that continued to --
- 3 to shut down.
- 4 Q. Now, were you present when this hearing began,
- 5 I believe in January, the first couple days of the hearing?
- 6 Were you present for those?
- 7 A. No, I was not.
- 8 Q. Okay. And if I were to tell you that it was
- 9 suggested by the least one witness that Zoltek's
- 10 machinery -- at least some of Zoltek's machinery was
- 11 over-sensitive to voltage fluctuations, would that be an
- idea that you have heard before?
- 13 A. Well, yes. I mean, it was -- it was assumed
- 14 that that could be an issue here, but there -- since we did
- 15 not -- we were not allowed to monitor internally inside to
- 16 really determine that, you know, there's no way that that
- 17 could be proven.
- 18 Q. Okay. That would require access to the
- 19 machinery?
- 20 A. Absolutely.
- Q. Now, was there a later incident of monitoring?
- 22 A. My understanding is there was -- there was
- 23 some monitoring done in 2000 by Mr. Wakeman's group, but I
- 24 can't --
- Q. You don't know much about that?

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- 2 Q. You were not the contact person in that?
- A. No, I was not.
- 4 JUDGE THOMPSON: Okay. Thank you very much
- 5 for your testimony, Mr. Hulse. I think we're ready for
- 6 recross based on questions from the Bench.
- 7 Ms. Shemwell?
- 8 MS. SHEMWELL: No questions. Thank you, your
- 9 Honor.
- JUDGE THOMPSON: Mr. May?
- 11 MR. MAY: Thank you, Judge.
- 12 RECROSS-EXAMINATION BY MR. MAY:
- 13 Q. Mr. Hulse, in response to one of the questions
- 14 posed by the Judge, you mentioned that there was an
- 15 understanding. And if I understood your testimony, were you
- 16 saying there was an understanding with respect to the loop
- 17 system being put in or -- explain to me what you meant by
- 18 your answer.
- 19 A. Well, what was -- what was the specific --
- 20 Q. There was a question posed by the Judge with
- 21 respect to, I believe, the loop system, the installation of
- the loop system. Do you recall that question?
- 23 A. Yes, I do.
- Q. Okay. And I think you -- again, I'm going off
- 25 memory, but you said you thought there was an understanding

- 1 amongst some folks about how the system would be phased in.
- 2 Is that what your testimony was?
- 3 A. Oh, between -- between Union
- 4 Electric and Missouri Research Park. Is that what you're
- 5 referring to?
- 6 Q. Right, right.
- 7 A. I referred to that back here in No. 4 of the
- 8 agreement between Union Electric and the Missouri Research
- 9 Park or the University. And that was -- that was in
- 10 discussion of installation primary distribution as required.
- 11 Q. Okay. Was that understanding ever expressed
- 12 to Zoltek and/or Mr. Rumy?
- 13 A. I -- I -- not by me.
- Q. Okay. Because, in fact, on page 2 of your
- 15 supplemental testimony lines 5 and 8 you, in essence, say
- that these types of things were not communicated?
- 17 A. That's correct.
- 18 Q. Okay. Also, there was some questions about
- 19 what the customer was willing to pay for. Do you recall
- that discussion in response to the Judge's questions?
- 21 A. Yes.
- 22 Q. And obviously by the wording of this agreement
- 23 the customer, the University of Missouri, was willing to pay
- 24 for a looped system; is that correct?
- 25 A. That's correct.

1	Q. Okay. And, in fact, the reliability was
2	something that you had discussed; is that correct?
3	A. With?
4	Q. With the University of Missouri.
5	A. Yes.
6	Q. Again, the Judge had mentioned that the system
7	was that you were kind of, as you said, the liaison, to
8	paraphrase, between the University of Missouri, the
9	customer, and the company, your company, Union Electric.
LO	Correct?
L1	A. Yes.
L2	Q. So you communicated back to your company the
L3	desires and wishes of the customer; is that right?
L4	A. That's correct.
L5	Q. And was one of those things you
L6	communicated one of the desires or concerns of the
L7	customer was the reliability of the system that would serve
L8	the park?
L9	A. Yes.
20	Q. Okay.
21	A. But keep in mind keep in mind though also
22	the other concern with the customer
23	MR. MAY: Your Honor, I would never mind.

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I'll withdraw.

BY MR. MAY:

- 1 Q. All right, sir. Now, you mentioned -- the
- 2 Judge had asked you a question about a December 15th, 1993
- 3 meeting?
- 4 A. That's correct.
- 5 Q. He said it was a December meeting and, again,
- 6 we believe that's the December 15th, '93 meeting?
- 7 A. Correct.
- 8 Q. And this is meeting that you had written a
- 9 memo, which is Exhibit 37. Correct? Which is your memo to
- 10 file --
- 11 A. Yes.
- 12 Q. -- regarding the 12/15/93 meeting.
- 13 That's the memo where you say that you thought
- 14 that this meeting helped improve the relationship with
- 15 Mr. Rumy; is that correct? I'll show you or reference you
- 16 page 2, the last paragraph there beginning with, I was
- 17 personally.
- 18 A. I think it did help improve --
- 19 Q. Okay.
- 20 A. -- Mr. Zoltek's -- Mr. Zsolt Rumy's
- 21 understanding of how an electrical system operates.
- 22 Q. Well, let's --
- 23 A. However -- however, I was trying to be very
- 24 kind when I said very persistent individual. I was
- 25 trying -- I was trying not to be --

1	Q.	Were you
2	Α.	to mention some of the some of the
3	verbatim that	he provided to us.
4	Q.	Well, sir, this is your memo. Correct?
5	Α.	Correct.
6	Q.	And it's for your internal purposes. Correct?
7	Α.	Correct.
8	Q.	A copy was not provided to Mr. Rumy, was it?
9	Α.	No, it was not.
10	Q.	And, in fact, you state there that he is a
11	very persiste	nt individual and combined efforts of parties
12		sorry involved helped improve our
	_	
13	relationship	with Mr. Rumy. Is that your writing?
14	A.	Yes, it is.
15	Q.	Okay. Now, you also had mentioned something
16	about the	Judge asked you something about the requests
17	that were mad	e to Mr. Spahn for the monitoring. Do you
18	recall those	questions?
19	Α.	Yes, I do.
20	Q.	And just to go over that briefly, again, you
21	first learned	of this problem, according to your testimony,
22	in August of	'93. Correct?
23	Α.	Correct.
24	Q.	The monitoring occurs in November of '93.
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Correct?

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2	Q. So approximately a three-month period had
3	elapsed between when you first learned of the problem and
4	when the monitoring occurred; is that correct?
5	A. That's correct. That's because we were having
6	problems getting in, in order to do the monitoring.
7	Q. I'm asking you, when did you make a request to
8	do monitoring?
9	MR. VITALE: Your Honor, I'm going to object.
10	It's beyond the scope of recross and it's also been asked
11	and answered several times in the original cross.
12	MR. MAY: Your Honor, you asked questions, if
13	I recall, with respect to the monitoring, the requests that
14	were made and also you referenced Mr. Carr's testimony. I
15	would think it's within the scope to ask him more pointed
16	questions about that.
17	MR. VITALE: These are the very same questions
18	your Honor asked and the same questions Mr. May asked in the
19	first cross where he said, Did you make requests. We went
20	through that, and when they were made and who they were made
21	to. He's asking the same questions that have been asked and
22	answered.
23	JUDGE THOMPSON: Hang on just a moment,
24	please. I'm going to overrule the objection and permit the
25	testimony. Please proceed.

1 A. That's correct.

	MAY:

- 2 Q. I'll just ask you the question again. Again,
- 3 we're dealing with this time frame of 8/93 to 11/93. You'd
- 4 mentioned you had made requests to Mr. Spahn. I was
- 5 wondering, when did you make the first request?
- 6 A. Well, since it's been such a long time ago,
- 7 sometime -- in a phone conversation in August of '93 is when
- 8 I -- is when I made such a comment to him saying that we
- 9 were willing to assist in any way that we can to do a power
- 10 quality investigation.
- 11 Q. And eventually monitoring was done. Correct?
- 12 A. That's correct.
- 13 Q. How many other requests did you make during
- 14 this time frame?
- 15 A. To my knowledge, about two or three times. I
- 16 mentioned this too when I talked to Mr. Spahn.
- 17 Q. In your responses to the Judge's questions you
- 18 had used that phrase in this time frame and I just want to
- 19 be clear. Were you talking about the same time frame I am,
- 20 the August to November time frame?
- 21 A. That's correct.
- Q. Okay. And last question, did you make any
- 23 written requests where you kind of detailed exactly what it
- 24 was that you had wanted to accomplish or what means by which
- 25 you wanted to conduct the investigation?

1	A. No, I did not.
2	MR. MAY: Okay. Thank you, sir.
3	Thank you, Judge.
4	JUDGE THOMPSON: Thank you, Mr. May.
5	Redirect?
6	MR. VITALE: Thank you, your Honor.
7	REDIRECT EXAMINATION BY MR. VITALE:
8	Q. In response, Mr. Hulse, to some questions from
9	Mr. May, he was referring you to Exhibit 37, your memo of
10	that December 1993 meeting. And I think you said you were
11	trying to be kind to Mr. Rumy. Could you explain that
12	testimony, because I don't think you were allowed to
13	complete your answer?
14	A. Well, what I was referring to is that I any
15	time when I try to write a memo, I try to always want to
16	give the benefit of the doubt, you know, that that, you
17	know, that we're the customer is trying to meet us
18	halfway, you know, in our in our further endeavors to
19	to resolve the incidents or the issues that he has. And
20	that's why that's why I I wrote it as I did.
21	I do believe that that the district people
22	being there, Mr. Thaxton, Mr. Flanagan, the superintendent,
23	Mr. Thaxton being the manager and Mr. Hunt, the engineer,
24	and Mr. Bradley, which was the gentleman responsible for
25	monitoring the monitoring in November of '93, I we
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- 2 operates and the results of the information that Mr. Bradley
- 3 found after his two weeks of monitoring the system. And we
- 4 were also trying to encourage him that this was not near
- 5 enough monitoring, that we need to do further
- 6 investigations.
- 7 Q. Now, you said in response to Mr. May's
- 8 questions that you didn't put down verbatim in the memo what
- 9 Mr. Rumy said at the meeting. Do you recall what he said?
- 10 A. One term that he used is -- was that he -- he
- 11 said that we were -- when we started talking about the
- 12 100 percent of continuity of service, that -- I told him
- 13 that there was no way we could provide that due to -- as I
- 14 explained earlier in my testimony, you know, he called us --
- 15 he called us liars.
- 16 Q. Okay. Let me refer you to Exhibit 34 and this
- is the agreement between the park and UE. And you were
- 18 asked some questions by the Judge, and I believe also
- 19 Mr. May, with respect to paragraph 4. UE shall complete the
- 20 installation of the primary distribution system on or
- 21 before -- and then the date September 30, 1988 is crossed
- out and as required, is typed in; is that correct?
- 23 A. That's correct.
- Q. And those are your initials?
- A. Yes, they are.

1	Q. And could you explain how that change from
2	September 30, 1988 to as required came about?
3	A. Well, Mr. Edison originally had had put
4	that date in there. And after we further sat down and
5	discussed the issue, I explained to him we recognize that
6	there's no way that we can have definitive lot lines
7	initially in this park, because the lots were fluctuating
8	from 7 to 10 acres down to as small as 5 acres in the first
9	initial 28 lots that were laid out in phase one of this
LO	of the park.
L1	And I and we both agreed that it would be
L2	better to keep keep it flexible so that whoever was going
L3	to promote the park, which eventually became Mr. Finholt in
L4	'8 in later on, the end of '88, that it would give him the
L5	latitude to maybe sell 10 to 15 acres maybe for a particular
L6	customer, maybe up to 20, whatever he needed. That's why
L7	that as required was put in there.
L8	Q. And who was to state that the time had come
L9	where the installation of the primarily system was required?
20	Who was to make the call after that amendment?
21	A. Well, that amendment actually, the
22	University would be.
23	Q. Okay. And did the University ultimately make
24	that call?

A. They -- yes, they contacted us after our --

25

1	after after our meeting in '95 and did talk to us
2	about about completing the loop.
3	MR. VITALE: Nothing further, your Honor.
4	JUDGE THOMPSON: Thank you very much,
5	Mr. Vitale.
6	Are you planning to be here the rest of the
7	day, sir?
8	THE WITNESS: I could be if you want me to do
9	so.
10	JUDGE THOMPSON: You're kind of in the same
11	boat as Mr. Carr, and I apologize to both of you. The
12	Commissioners are engaged in other business and,
13	consequently, are not here to ask you whatever questions
14	they might have. So if you could stay a little longer until
15	the Commissioners get here so that I can see whether or not
16	they have any questions for you, it would, I think, save you
17	time and trouble in the event that they do. You would not
18	have to come back another day in that case.
19	So I will release you from the stand on the
20	understanding that you will remain at least for some period
21	this afternoon. Thank you very much for your testimony,

THE WITNESS: Thank you.

22

sir.

JUDGE THOMPSON: I believe we're ready for

25 Mr. Angeli. Am I saying that correctly?

1	MR. VITALE: Angeli.
2	JUDGE THOMPSON: Angeli. I apologize.
3	THE WITNESS: Quite all right, your Honor.
4	(Witness sworn.)
5	JUDGE THOMPSON: Please take your seat, state
6	your name for the reporter, spell it if you would.
7	THE WITNESS: My name is Bartholomew P.
8	Angeli, A-n-g-e-l-i.
9	JUDGE THOMPSON: And I see we're changing
10	here. You're Mr. Peters.
11	MR. PETERS: Yes, your Honor. Thank you.
12	JUDGE THOMPSON: I had to remind myself
13	quickly. I do apologize.
14	MR. PETERS: That's okay. Can I ask what
15	exhibit number Mr. Angeli's Rebuttal Testimony is?
16	JUDGE THOMPSON: You may. With some luck,
17	I'll be able to tell you. It is Exhibit 12.
18	MR. PETERS: May I approach, your Honor?
19	JUDGE THOMPSON: You may.
20	I have a deposition of yours up here, Mr. May.
21	Why don't you come take that back while I'm thinking about
22	it or you may never see it again. There you are.
23	MR. MAY: Thank you.
24	JUDGE THOMPSON: You may inquire.
25	MR. PETERS: Thank you.
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- 1 BARTHOLOMEW P. ANGELI testified as follows:
- 2 DIRECT EXAMINATION BY MR. PETERS:
- 3 Q. Mr. Angeli, my name's Dan Peters, on behalf of
- 4 AmerenUE.
- 5 Could you please state your current employer?
- A. It's Ameren Services.
- 7 Q. And what is your position with Ameren
- 8 Services?
- 9 A. I am an engineer in the distribution system
- 10 planning department.
- 11 Q. And I've handed you a copy of a document that
- 12 is titled Rebuttal Testimony of Bartholomew Angeli and
- marked Exhibit 12. Have you seen that document before?
- 14 A. Yes, I have.
- 15 Q. And is that testimony that you have produced
- for the Commission in this matter?
- 17 A. Yes, it is.
- 18 Q. And have you had an opportunity to review the
- 19 questions and answers set forth in Exhibit 12?
- 20 A. Yes, I have.
- 21 Q. And are there any changes or corrections that
- 22 you feel need to be made to Exhibit 12 since your
- 23 preparation of that document?
- A. No, there is not.
- Q. And is the testimony that's set forth in

- 1 Exhibit 12 your personal testimony?
- 2 A. Yes, it is.
- 3 Q. And is it true and accurate, to the best of
- 4 your knowledge and ability?
- 5 A. Yes, it is.
- 6 MR. PETERS: Your Honor, I'd offer Mr. Angeli.
- 7 JUDGE THOMPSON: Thank you, sir. Do I hear
- 8 any objections to the receipt of Exhibit No. 12 into the
- 9 record?
- MS. SHEMWELL: No, your Honor.
- MR. MAY: No, your Honor.
- 12 JUDGE THOMPSON: Thank you very much. Hearing
- 13 no objections, Exhibit No. 12 is received and made a part of
- 14 the record of this proceeding.
- 15 (EXHIBIT NO. 12 WAS RECEIVED INTO EVIDENCE.)
- JUDGE THOMPSON: Cross-examination,
- 17 Ms. Shemwell?
- 18 MS. SHEMWELL: Thank you, your Honor.
- 19 CROSS-EXAMINATION BY MS. SHEMWELL:
- Q. Mr. Angeli, my name's Lera Shemwell. I
- 21 represent the Staff of the Public Service Commission at this
- 22 hearing. Good afternoon.
- 23 A. Good afternoon.
- Q. You said you do distribution system planning?
- 25 A. Yes.

1	Q. What does that mean?
2	A. My responsibility currently right now is I'm
3	responsible for several areas of all the sub-transmission
4	and distribution planning. The district people that we've
5	spoken often of are responsible for local poles and wires
6	and stuff.
7	My responsibility in the staff position
8	downtown is to provide assistance to them on planning on,
9	like, substation upgrades as well as the sub-transmission
10	circuitry to the power to the local distribution
11	substation.
12	Q. You also study lightning?
13	A. Yes.
14	Q. How do those two tie together? Let me be a
15	little more specific. Does your study of lightning assist
16	in the planning of, for example, placement of these
17	stations?
18	A. Not directly. My involvement in this and my
19	study of lightning is that in beginning in February of
20	1998 pardon me January of 1998 Union Electric at that
21	time purchased what's called the Fall System and that's the
22	owners of the Lightning Network. And we get this data, this
23	lightning data every year from that firm and we use that in
24	analyzing the performance of our circuits.

Prior to that, we also had been subscribers to

25

1	the Lightning Detection Network since February of 1989 and
2	I've been the caretaker of that system. And that's just
3	been a monitoring system, kind of monitoring the lightning
4	events.
5	So I've kind of been involved at Ameren
6	monitoring this real-time lightning system and then
7	beginning in 1998 we have a newer system that actually does
8	study and correlations of lightning of specific events
9	with with performance of our circuits.
10	Q. As a result of your study of performance of
11	the circuitry, does that lead to ideas about what Ameren can
12	do to control or mitigate the effects of lightning?
13	A. Well, we we can't really control lightning
14	at all. What the studies
15	Q. My question was really the effects. Can you
16	control the effects?
17	A. We use the system that allows us to watch the
18	performance of our circuits and, as I said, this begins
19	in the beginning of 1998 where when we have a circuit
20	breaker operation and a lightning storm, let's say, we can

operated.

And actually it starts giving us very good

actually go in and plot on a geographical map our circuitry

and then we can pull up all the lightning that occurred and

compare the time of that lightning to the time our breaker

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22

23

1	information	about	how	well	does	that	current	protection

- design -- how well is the line performing, if you will.
- 3 Because you can't just simply say, I've gone out and I've
- 4 done this or I've done that and the circuit behave itself
- 5 for the next 12 months.
- 6 Q. What you're looking at is the effect of the
- 7 lightning on the circuit and whether or not it continues to
- 8 operate effectively?
- 9 A. Yes.
- 10 Q. Does putting in an underground system provide
- 11 protection against the effects of lightning in that area?
- 12 A. Well, having an underground system certainly
- 13 probably -- the biggest advantage to an underground system
- is it simply gets it out of the trees. While lightning
- certainly impacts the circuitry, usually it's the severe
- 16 weather, the rain and the wind and either trees or debris or
- 17 whatever causing an interruption on the service --
- 18 circuitry.
- 19 So if the circuit is underground, obviously
- 20 the effects of lightning directly are not upon it. It's
- 21 still subject to some surges. Being underground, you don't
- 22 quite eliminate that.
- 23 Q. Is the purpose of your testimony to show that
- 24 during 1993 that a lot of the -- let's call them
- 25 interruptions, that Zoltek reported were likely due to

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2	A. The purpose of my testimony was is that
3	before we bought this system I spoke of called Falls in
4	1998, we had this real-time lightning system. In about 1996
5	we hired this company to do a regional state of Missouri
6	analysis for the years 1991 through 1995. And that is part
7	of the testimony that's included in here that I've
8	submitted.
9	That was merely just kind of an evaluation of
10	the density of lightning flashes. Again, this is
11	cloud-to-ground lightning in the state of Missouri over that
12	time period.
13	My testimony here is just to illustrate that
14	1993 was an unprecedented year for this state in lightning.
15	We did have a 500-year flood and I'm just trying to point
16	out that in some ways it's not coincidence that Zoltek saw a
17	lot of disturbances in 1993.
18	Was it due to lightning or what it was, I
19	can't say any of that, but I can say from my 20 years in
20	this business and 20 years dealing with a distribution
21	system, with the amount of lightning there was, there was a
22	lot of things going on.
23	And be it the lightning itself, be it the
24	effect that you had a lot of strong winds and rain and what
25	have you, that there is going to simply be by natural

lightning?

1	number	οf	occurrences,	there's	anina	tο	he	more	disturbances
_	HUILDCE	OI	occurrences,	CIICI D	901119	LU	$\mathcal{L}$	IIIOT C	arb carbances

- 2 noted by everybody through the electrical system. And that
- 3 1993 was just unprecedented for all the data that we have to
- 4 date.
- 5 Q. Is there anything that Zoltek could have done
- 6 to control the effects of the lightning on their particular
- 7 plant? First of all, let's say that the lightning did cause
- 8 some of these outages, blips, whatever you want to call them
- 9 in '93. Is there anything they could have done to control
- 10 the effects on their particular plant?
- 11 A. I really don't know. I've not been involved
- 12 in any of the power quality or been in their plant so I
- 13 really can't answer that.
- MS. SHEMWELL: Thank you, sir.
- 15 JUDGE THOMPSON: Thank you, Ms. Shemwell.
- 16 MS. SHEMWELL: Thank you, your Honor.
- JUDGE THOMPSON: Mr. May?
- 18 MR. MAY: Thank you, Judge.
- 19 CROSS-EXAMINATION BY MR. MAY:
- Q. Good afternoon.
- 21 A. Good afternoon.
- 22 Q. Just a few questions for you. When was your
- analysis prepared that's contained within your testimony?
- 24 A. Last year. It's a culmination of three
- 25 different sources so it was, what, in -- I forget the date.

- 1 Sometime last year I was contacted.
- 2 Q. In the year 2001?
- 3 A. Yes, sir.
- Q. And I may have interrupted you, but at whose
- 5 request? You said you were contacted by someone.
- 6 A. Bill Carr.
- 7 Q. And was your analysis prepared then for the
- 8 purpose of this litigation?
- 9 A. I assembled the data, because I had -- at that
- 10 point I had the years 1991 through '95 previously. And I --
- 11 we had the information at our disposal that I was able to do
- 12 a similar study for '98, '99 and 2000. And we had to
- contact the owners of the system for 1996 and '97, but I
- 14 started all that and I was pulling that information
- 15 together.
- 16 Q. And I've asked you some questions before. You
- 17 recall I took your deposition?
- 18 A. Yes.
- 19 Q. And at that time you had indicated to me that
- 20 it was correct to summarize your testimony as nothing more
- 21 than quantifying the amount of lightning that had occurred
- in 1993; is that correct?
- 23 A. Relative to the years, right, '91 through
- 24 2000.
- Q. Right.

1	Α.	Yes.
⊥	А.	TED.

- 2 Q. And there was nothing in your testimony as far
- 3 as the situation that existed at Zoltek in 1993 or any other
- 4 year; is that correct?
- 5 A. That is correct.
- 6 Q. Right. And isn't it true you make no
- 7 correlation in your testimony between the problems that
- 8 Zoltek experienced with its power quality and these
- 9 lightning strikes; isn't that true?
- 10 A. Right. I have no correlation direct, no, sir.
- 11 Q. Okay. And you're just simply, in your
- 12 testimony, stating the amount of lightning?
- 13 A. Right.
- 14 Q. Okay. And what documents did you look at to
- 15 prepare your testimony other than -- we'll call them
- 16 lightning-related documents that you've already mentioned?
- 17 Did you look at any other documents?
- 18 A. No.
- 19 Q. Okay. No correspondence between the parties,
- 20 nothing of that sort?
- 21 A. No.
- 22 MR. MAY: Okay. Thank you, sir.
- Nothing else, your Honor.
- JUDGE THOMPSON: Thank you, Mr. May.
- 25 QUESTIONS BY JUDGE THOMPSON:

2	certainly 1993 does stand out. It looks like a bad year to
3	climb trees or poles in St. Charles County.
4	MS. SHEMWELL: Or live in Missouri.
5	BY JUDGE THOMPSON:
6	Q. Are you familiar with the effect of lightning
7	strikes on Ameren's distribution system?
8	A. Yes. I would say I'm very familiar with it.
9	Q. And what exactly, if you could summarize, and
10	I understand that I'm a layperson what are the effects of
11	lightning strikes on Ameren's distribution system?
12	A. Most of the time lightning strikes our system
13	and if it's a direct strike on the conductor, we have what's
14	called lightning arresters that try to, quote, clamp the
15	voltage, discharge that surge into the ground. And that all
16	happens in literally milliseconds, you know, a fraction of a
17	second.
18	Typically, you don't hardly see anything.
19	Once in a while those kinds of events will lead to a back
20	flash or something where there will literally be a flash
21	over of our facilities and a protective device, a circuit
22	breaker, at the source will open up for maybe a second or
23	two and reclose and that will be a, quote, blinking of the
24	lights type of thing. And I would say the vast majority of
25	the time that's what most of us see as an effect of
	1107 ASSOCIATED COURT REPORTERS

1 Q. I've just been looking over your testimony and

1	lightning.
2	Q. Is a blink of the lights?
3	A. Is a blink of the lights. Occasionally maybe
4	your VCR at home or something will, quote, get fried or get
5	destroyed. And maybe it's not so much lightning striking
6	the wires directly and running into your house.
7	It may just be the fact that as lightning hits
8	the ground, it's dissipating out through the ground and as
9	it does that, it sends surges like on your water pipe and
10	stuff, which your system is connected to.
11	So these kind of things may, quote, damage
12	sensitive electronic stuff, but most of the time most of us
13	don't see the dramatic effects. Occasionally you hear of
14	people who the outlet literally shot out of the wall in the
15	kitchen or something like that. That's a direct strike.
16	But most of the time
17	Q. Okay. Are electric system distribution
18	facilities more likely to be struck by lightning than other
19	types of items or less likely or the same?
20	A. No more or no less than anything else.
21	Q. And is the effect then let's say you have a

direct strike by lightning upon some component of the

distribution system. Does that have the effect of adding a

large amount of additional electrical power to the system?

Actually, it does not. It's amazing while the

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A.

- 1 current may be in tens of thousands of amperes, it's just
- 2 for a brief period of time and the vast majority of the time
- 3 when lightning strikes our facilities, it's dissipated
- 4 through our equipment safely to the ground and there is no
- 5 physical damage.
- 6 In fact, most of the time when lightning does
- 7 strike even a home maybe or a tree, many, many times there
- 8 is not damage. It's the exception that there's physical
- 9 damage from it.
- 10 Q. So it is a large amount of power, but it
- 11 happens extremely quickly?
- 12 A. Yes, sir. Very, very quickly.
- 13 Q. And in many cases, if not most, it is grounded
- 14 very rapidly?
- 15 A. Dissipated to the earth and that's it, yes,
- 16 sir.
- 17 Q. Now, taking 1993, your map would suggest that
- 18 that was an unusual year for St. Charles County. Would you
- 19 agree?
- 20 A. Absolutely.
- 21 Q. And there were many more strikes per acre or
- whatever your measurement is based upon than normal; isn't
- 23 that correct?
- 24 A. Yes.
- Q. Would you expect -- and I realize you haven't

-	7		1	correlated	 	

- 2 experience of Zoltek. Nonetheless, I'm asking you to
- 3 extrapolate, would you expect this to have had any kind of
- 4 effect on the service that Zoltek received?
- 5 A. Absolutely, I would.
- 6 Q. And what sort of effect would you expect that
- 7 to have been?
- 8 A. A lot of things that I've heard described in
- 9 the previous days. These blips or this equipment tripping
- off line and things like that, yes.
- 11 Q. So, in other words, it's your belief as an
- 12 expert on lightning -- as Ameren's lightning expert, if
- 13 that's the proper term, that lightning strikes could cause
- many of the sorts of things that were observed at Zoltek?
- 15 A. Certainly aggravate the situation, yes.
- 16 Q. And you were here for the testimony in
- 17 January?
- 18 A. The second day and a half or whatever. I
- 19 wasn't here for the entire amount, but I was here for the
- 20 last half of it.
- 21 Q. So you were here for part of it anyway?
- 22 A. Yes, sir.
- Q. And did you hear anything described that
- lightning could not have contributed to?
- 25 A. I mean, I've heard of things. I don't wish to

1	sav	that	lightning	 I	don't	even	want	to	quess	how	 what

- 2 percentage, if will you, that disturbances were lightning
- 3 correlated. But just by the volume, it wouldn't surprise me
- 4 that there's a substantial portion or a significant portion
- 5 of that that we might be able to say had -- you know, it was
- 6 a lightning event somewhere.
- 7 Q. Okay. Now, are you familiar with the details
- 8 of how power is delivered to Zoltek?
- 9 A. Not -- not the real specific details. I'm
- somewhat familiar with the area, I'm familiar with the
- 11 Research Park. I provided other engineering assistance to
- 12 that district out there, but --
- 13 Q. Okay. Within the limits of your familiarity
- 14 and your knowledge then, for example, how far away is the
- generating source that serves that area?
- 16 A. Well, the -- the generating sources are all
- over and it's all interconnected. The closest source would
- be about Labadie, Missouri that I can think of. I don't
- 19 know as the crow flies, if you will, your Honor, how close.
- 20 I do know they're a mile or less from the substation, which
- is pretty close to that source.
- Q. So at any given time, you can't say which
- 23 generating source is serving which customer?
- A. No, sir. It all goes into the grid and -- and
- 25 we can't tell you which power comes from which plant or goes

1 to which load, no
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- 2 Q. Okay. Is there any effect on reliability, if
- 3 you know, on the distance between the customer and say, the
- 4 substation?
- 5 A. It isn't so much that distance as it is the
- 6 distance of the entire circuit that serves that customer.
- 7 While a customer may be very close to the substation, let's
- 8 say a mile, and the circuit goes beyond that customer and
- 9 goes out into the countryside another 10 miles, that
- 10 customer is going to see some of the dips or exposure, if
- 11 you will, anywhere of that length. So it's really the
- 12 length of the entire circuitry needs to be looked at.
- 13 Q. Okay. And I think I heard the previous day,
- during that period, that the longer the circuit, the more
- 15 exposed it is to events or interference?
- 16 A. Yes, yes. In very general terms, one would
- 17 expect longer circuits to have more incidents on them, if
- 18 you will, or outages than shorter ones.
- 19 Q. And I think you said that the Research Park's
- 20 about a mile from the substation?
- 21 A. Not even that. The substation, if my memory's
- got me correctly, is on one corner of Highway 40 and 94 and
- 23 the Research Park's literally on the other. Again, the
- 24 district would be better, but we're talking, I don't know,
- 25 1,000 feet or so before the circuitry enters the park, so

1	it's not very as things go, it's not very far away.
2	Q. Do you know whether that particular circuit
3	that serves the park continues on?
4	A. I I do I know of heard of just
5	just heard details, but I personally can't tell you that.
6	Q. Okay. But if, in fact, that circuit served
7	the park and didn't go any further, it would be less exposed
8	incidents than one that, as you say, went 10 miles in the
9	countryside?
10	A. Right. Again, it's going to be a question of
11	degree because there's that's that circuit. Again,
12	there's a few other circuits off that substation. So
13	sometimes, you know, I even see it at my house, the lights
14	dim or something in the storm and I get to work the next day
15	and I look at the records and find out it wasn't even $\mathfrak{m} y$
16	circuit, it was another circuit on the same substation I'm
17	supplied from.
18	So you can kind of yes, that has an effect
19	on that circuit, but the other circuits out of that
20	substation, you're going to see incidences sometimes on
21	those.

Q. So, in other words, it's in addition to the length of the circuit serving the customer, there's also some exposure for that customer with respect to other

25 circuits originating in the same substation?

1	A. Yes.
2	Q. What about the distribution system between the
3	substation and the generating source?
4	A. It isn't so much the generating source as much
5	as it is from the substation back up to the transmission
6	system. It just has more and more of these things
7	happen, you know, more people see them and it depends.
8	Like on the transmission system, we had an
9	event yesterday at 2:08 in the afternoon and I'm downtown in
10	St. Louis, I saw the lights flicker. And this was an event
11	that occurred at a substation north of St. Charles County,
12	so
13	Q. Do you happen to know how far the substation
14	that serves Zoltek is from the transmission system?
15	A. I don't know off my head, no, sir.
16	Q. Am I correct in understanding by transmission
17	system we mean high capacity wires that run directly from
18	generator to
19	A. Yes, sir. It's the lines and usually
20	138-kV and higher are considered transmission.
21	Q. These are the things we see marching across
22	the countryside
23	A. Right.
24	Q in giant steel towers?
25	A. Yes.

	-
2	A. And they not only bring the power from the
3	generation to various load centers, but also it's tied
4	across state lines. It's what has us tied to everything
5	from Oklahoma to Minnesota.
6	Q. So if I wanted to design or create an
7	extremely reliable power supply for an industrial park or
8	even a single industrial customer, if I served that customer
9	with one circuit coming from a dedicated substation which
10	had no other circuits, would that not result in a much more
11	reliable system?
12	A. To some degree more reliable. I think it's
13	very careful what we're talking and what I've been
14	hearing discussed isn't so much what we in the utility
15	business view as outages as much as it is disturbances and
16	events.
17	And just short of literally running the
18	generator right next to the customer, these are just things
19	of the system that are going to occur and we're just not
20	going to, quote, eliminate it. So while we can build some
21	dedication, but feeders, that would certainly help some,
22	but to what extent can we do that practically.
23	Q. Well, that was my next question is whether
24	that sort of arrangement would be practical?
25	A. It kind of gets to the law of diminishing
	1115

1 Q. Okay.

- 1 returns. You know, you -- the cost of all that and the
- 2 space it takes up, I mean, you know, we have to build the
- 3 pole league down the road, be it underground or overhead,
- 4 and we have to serve a lot of customers off that. We can't
- 5 give everybody a dedicated circuit. So --
- 6 Q. So if you did give a customer something like
- 7 that, as far as you know, and if you know, you would expect
- 8 the customer to pay the difference, would you not?
- 9 A. Yes.
- 10 Q. And that's not the end of the business you're
- 11 in?
- 12 A. No. Not -- no, sir.
- 13 JUDGE THOMPSON: I think that's all my
- 14 questions. Mr. Angeli -- Angeli. Right?
- THE WITNESS: Angel with an I. Whatever, sir.
- 16 That's close enough.
- JUDGE THOMPSON: I apologize.
- 18 THE WITNESS: No. That's fine.
- 19 JUDGE THOMPSON: Recross based on questions
- from the Bench, Ms. Shemwell?
- 21 MS. SHEMWELL: No questions, your Honor.
- 22 Thank you.
- JUDGE THOMPSON: Mr. May?
- 24 RECROSS-EXAMINATION BY MR. MAY:
- Q. Sir, in your testimony here you simply count,

1	in	essence.	the	number	οf	lightning	strikes	for	а	particular

- 2 year and where they're located, is that correct, around the
- 3 state?
- 4 A. Yes. That's a flash density map of
- 5 cloud-to-ground lighting --
- Q. There's --
- 7 A. Yes, sir.
- Q. I'm sorry.
- 9 A. No. That's correct.
- 10 Q. There's nothing within your testimony though
- 11 that indicates the number of these lightning strikes that
- 12 struck UE's distribution equipment or system?
- 13 A. I do not know where they struck, no.
- 14 Q. Okay. Now, also you had responded to the
- Judge's question regarding the effects of Zoltek in 1993.
- 16 Do you remember the question --
- 17 A. Yes.
- Q. -- and your response?
- 19 I had asked you though both in your deposition
- 20 as well as before on your initial cross-examination, that
- 21 you make no correlation between the problems at Zoltek as
- 22 experienced with its power quality and the lightning
- 23 strikes; is that correct?
- 24 MR. PETERS: Object to the form of the
- 25 question. It was posed in such a way that it was

1			+ h -		-1		1		h d -
	inconsistent	$M \perp \Gamma \Pi$	tne	questions	unat	you	asked	and	$_{ m HIS}$

- 2 answers. And I believe this question has already been asked
- 3 a couple times.
- 4 JUDGE THOMPSON: Well, let me --
- 5 MR. MAY: Your Honor, if I may.
- 6 JUDGE THOMPSON: You may respond.
- 7 MR. MAY: He provided an answer to me about a
- 8 question. You then asked him a similar question and he
- 9 proceeded to respond in a different fashion. I'm trying to
- 10 get straight as to what his testimony contains. And
- obviously I prepared my cross-examination upon the
- 12 deposition and I'm hearing something different so I need to
- 13 deal with that.
- 14 JUDGE THOMPSON: I'll allow the question.
- 15 Please proceed.
- 16 BY MR. MAY:
- 17 Q. Okay. Again, just to be clear, you make no
- 18 correlation in your testimony between the problems at Zoltek
- 19 with respect to its power quality and these lightning
- 20 strikes; is that correct?
- 21 A. I make no direct correlation, that's correct.
- 22 I do not point to any specific lightning event and say that
- 23 this correlates with an event as reported by Zoltek or
- 24 AmerenUE, that is correct.
- Q. Right. And when you responded to the Judge's

7		4-1	- 1 4-	11	4 1	lightning		1	11	
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- 2 effect in 1993, you were speculating as to that?
- 3 A. Yes. I'm speculating -- I'm basing it upon my
- 4 experience, yes, sir.
- 5 Q. In other words, you didn't look at the
- 6 monitoring results from Zoltek?
- 7 A. No, I have not.
- 8 Q. You never analyzed their service quality
- 9 incidents list, have you?
- 10 A. No, sir.
- 11 Q. You never spoke to anyone at Zoltek?
- 12 A. No, I have not.
- 13 Q. You've never been to their plant?
- 14 A. No, I have not.
- MR. MAY: Okay. Thank you.
- Thank you, Judge.
- 17 JUDGE THOMPSON: Thank you, Mr. May.
- 18 Redirect, Mr. Peters?
- 19 REDIRECT EXAMINATION BY MR. PETERS:
- 20 Q. Mr. Angeli, I think we need to now go back and
- 21 clarify some things based on most recent questions. Could
- 22 you explain to the Commission your educational background,
- 23 please?
- 24 A. I have a bachelor of science in electrical
- 25 engineering from the University of Missouri-Rolla.

1	Q. And how long have you worked for AmerenUE?
2	A. Twenty years.
3	Q. And can you summarize your area of experience
4	in those 20 years with AmerenUE?
5	A. It's all been within the distribution system.
6	I spent the first four years in distribution in a district
7	similar to Wentzville, but in the metropolitan area. And I
8	spent some time in substations, maintenance and
9	construction, again, similar to the substation people who
10	take care of the substation that serves Zoltek.
11	Spent some three, four years in operating.
12	Spent some time in distribution standards, and now $\ensuremath{\text{I'm}}$
13	currently in planning. But I've spent all my 20 years in
14	the delivery system.
15	Q. Okay. And that describes kind of the
16	components of AmerenUE that you have worked within, but to
17	lay people, can you kind of explain just generally and
18	briefly what your job entails as far as observing or
19	evaluating the supply of power from AmerenUE to the
20	customers?
21	A. You mean in my current job?
22	Q. Well, whether currently or the past 20 years.
23	I'm trying to establish your experience and your level of
24	knowledge in regards to how electrical systems work, what
25	happens, what can negatively impact a system and have a
	1120

1	negative impact on a customer's receipt of power. So what
2	are some practical or
3	A. Originally back prior to Ed Bradley being in
4	operating and doing this monitoring, before he got into that
5	department, I spent some time in there, about three years in
6	that department answering just these very same type of
7	questions.
8	Q. What type of questions are those?
9	A. Customers who are having experiencing
LO	disturbances on their lines and whether or not it was
L1	something that was originating with AmerenUE, whether it was
L2	something we had anything to do with, or whether perhaps it
L3	was something internal to the customer. I spent
L4	considerable time in that part of our company, about three
L5	years.
L6	Q. Can I rephrase that?
L7	A. Sure.
L8	Q. Are you saying that you actually worked with
L9	customers in evaluating problems that they were having with
20	their electrical service?
21	A. I spent three years doing that, yes.
22	Q. Okay. Go on.
23	A. And just that and all through these years

lightning monitoring system, so  $\ensuremath{\text{I}}$  attended conferences and

since 1989 I was the liaison or the caretaker of the

24

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1 w	<i>n</i> hatnot	on	lightning.	That's	how	Ι	kind	of	came	into	this
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- 2 role of being the company expert on lightning with the
- 3 distribution system.
- 4 So even though I've been in standards or I've
- 5 been in operating or in planning, I have played a role with
- 6 other departments, other districts, other people who may
- 7 have had a circuitry that was giving them problems due to
- 8 lightning. So, yes, I've spent a lot of time working with
- 9 design people and operating people.
- 10 Q. Okay. You've mentioned supply, operating, and
- 11 design?
- 12 A. Yes.
- Q. What do you mean by "design"?
- 14 A. I was speaking in terms of, like, our
- 15 standards people and stuff that say, okay, you build this
- pole in this particular manner, the spacing of the wires,
- 17 the equipment that you use, lighting arresters, grounding,
- 18 shielding, those types of thing.
- 19 Q. Are you talking about designing a system to
- 20 supply electrical service to a customer?
- 21 A. Right. The distribution system that carries
- 22 power, you know, throughout your --
- 23 Q. And how much time have you spent in designing
- 24 electrical systems for customers of AmerenUE? Any kind of
- 25 reference point that you could give us?

1	A. When you say design, are you talking about in
2	terms of the actual I mean, I was in the standards
3	department several years, but I I was viewed as a
4	Q. You were talking about designing a system.
5	You were saying what lightning arresters to use, what
6	different types of equipment to use. And I asked you if
7	that meant deciding what type of components should be used
8	by AmerenUE to supply electric to a customer.
9	A. Yes.
LO	Q. In that type of capacity, how much time have
L1	you spent on that type of work in the past 20 years?
L2	MR. MAY: Your Honor, if I may excuse me
L3	object.
L4	JUDGE THOMPSON: And your objection is?
L5	MR. MAY: Your Honor, the relevancy of this
L6	testimony. This witness has already testified that he
L7	counted the number of lightning strikes.
L8	I'm not sure the relevance of his 20 years of
L9	looking at how power systems are put together exactly is
20	relevant to his qualifications with respect to counting
21	lightning. I think he's done a sufficient job of showing
22	he's qualified to count the number of lightning strikes and
23	work with that data.
24	MR. PETERS: Your Honor, with all due respect,
25	I've been a little bit concerned about the tone of some

1	questioning, which I think has been not respectful of the
2	witnesses, their knowledge and them coming to provide
3	information to the Commission, which I think Mr. Angeli is
4	one of those persons.
5	Furthermore, I think there's a false attempt
6	to characterize Mr. Angeli's testimony as unsubstantiated
7	speculation. And what I am doing, because we went into that
8	area, is to fully explore his experience in which he used to
9	come to his opinion. And I think he gave very informative
LO	information to this Commission and explained what type of
L1	correlation he was making, that it wasn't pure speculation.
L2	And now I feel I have to go back and lay the foundation to
L3	clear that up.
L4	JUDGE THOMPSON: Well, certainly I believe I
L5	opened the door to this line of questioning during my
L6	questioning of Mr. Angeli and, therefore, I'm going to allow
L7	you to proceed, and you may.
L8	BY MR. PETERS:
L9	Q. Okay. Now, Mr. Angeli, I'm not sure where we
20	stopped there, but I was asking you just kind of how much
21	time you spent on the design type of work where you helped
22	certain people design a system for Ameren to use for

whether it's years, months, period of time whatever.

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25

A.

customers. And I'm just -- any kind of ballpark reference,

Essentially beginning literally in about

1	February	of	1989	forward.	off	and	on	at	various	times.	T've

- 2 just played a role as the person in the company who is
- 3 responsible for the lightning machine, who is the one who
- 4 has kind of been the liaison from us to the National
- 5 Lightning Detection Network and just simply being kind of
- 6 the center point for us having the data, the studies or
- 7 whatever and preparing that data or any questions on
- 8 lightning and how it effects our facilities, I'm the person
- 9 that's typically consulted on that.
- 10 And I just -- no matter which job I've held,
- 11 I've done that. So I've been doing it for the last
- 12 10 years.
- 13 Q. To clarify, I think you've testified to these
- 14 things. You heard Mr. Hulse testify that he is kind of a
- 15 liaison between the company and the customer. And you've
- 16 heard references to the district people, I think you may
- 17 have used the term, and I think you referred to yourself as
- 18 being a staff person.
- 19 Would it be correct to say that you, as a
- staff person, are using your knowledge and experience in
- 21 electrical distribution and supply to help the district
- 22 people in designing a system for a customer?
- 23 A. Yes. Absolutely.
- Q. Okay. Now, again, you mentioned three
- 25 areas -- and I'm going to forget them -- design, supply, I

1	think,	and	consulting	or	something	like	that.	Do you

- 2 remember what the three areas you talked about were?
- 3 A. I think it just sums up that not only did I
- 4 work in a district and work with overhead crews and am
- 5 familiar with that aspect, I'm just trying to say I also
- 6 spent time in the operations department --
- 7 Q. Operations.
- 8 A. -- you know, dealing -- working with people
- 9 not only with the problems day-to-day, but actually
- 10 switching and whatever, just literally operating our system
- 11 to as well as being in the staff position, okay, this is the
- 12 type of equipment that we purchase, this is the
- 13 specifications we have for it.
- 14 I'm just saying that my background is I've
- 15 been all around. Anything dealing with getting the power
- from the substation to your home, you know, my 20 years I've
- dealt with some facet of that, whatever it's been.
- 18 Q. And are you knowledgeable about how electric
- 19 is flowed or carried from an original source all the way to
- 20 a customer?
- 21 A. I would believe that I am, yes.
- 22 Q. And have you obtained that knowledge through
- your 20 years of working at AmerenUE?
- A. Yes, I have.
- Q. And are you knowledgeable about what things

2	original source to a customer?
3	A. Yes.
4	Q. And would lightning and severe weather be one
5	of those things that could interfere with the supply of
6	power?
7	A. That's probably our biggest influencer, if you
8	will, in the delivery of power is the weather.
9	Q. And I think you were testifying earlier that
10	you're pretty much the person from AmerenUE to evaluate
11	lightning and weather on Ameren's system; is that correct?
12	A. With lightning, yes. I because I'm the one
13	who's very knowledgeable of how the lightning data is
14	gathered and what does it mean and how do we take that data
15	and look at the performance of our circuits, so yes.
16	Q. In what respects have you then actually
17	observed and evaluated what negative effects lightning has
18	had on AmerenUE's electrical systems?
19	A. Part of my responsibility in the areas that I
20	have sub-transmission responsibility, we evaluate our
21	sub-transmission, our 34- and 69-kV circuitry and those that
22	seem to be having a lot of interruptions on them in storms,
23	we literally as I said earlier, we go into our machine
24	and we literally say, okay, there was an operation of a
25	breaker at this date and time and we look at the lightning
	1127

could interfere with the supply and flow of power from its

1	data and say, okay, was there a lightning event.
2	So we correlate a lightning event to a
3	operation. And then we literally send someone out in the
4	field to see if we see some physical damage or some other
5	deficiency in our system that needs attention too. And the
6	system has allowed us to do that.
7	Q. And have you actually followed through, either
8	yourself or with someone else who actually goes out
9	A. Yes.
10	Q to observe the actual effect, the physical
11	effect of the lightning?
12	A. Yes. We currently do that today. And there's
13	many times we find a deficiency, we find a reason why was
14	there was a problem.
15	Q. Okay. And I believe in response to his honor,
16	you gave your opinion that there is some it would be
17	reasonable to expect a correlation between the inordinately
18	high number of lightning strikes in 1993 with the reported
19	effects that Zoltek has or incidents that Zoltek has
20	reported. Was that your testimony?

And that weather is going to affect our system.

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Yes. I was just saying that by the sheer

To what degree on any particular storm, I have

volume there is, we know that when there is lightning, you

know, usually there's severe weather accompanied with that.

1	no idea. Again, I've done no direct correlation. But by
2	just the sheer nature of the volume of the lightning
3	suggests that some of this was probably again, this is
4	only my I'm inferring this, I've come to this conclusion
5	that some of it was weather-related.
6	Q. So what you're in response to Mr. May's
7	questions, you're saying that you have not gone out and
8	evaluated and tied a particular lightning strike to a
9	particular problem reported by Zoltek. Right?
10	A. Correct.
11	Q. But you have given your opinion, and it's
12	solely your opinion, that it would be reasonable to expect
13	that the severe weather in '93 may have or could have
14	contributed to the reported incidences that Zoltek had in
15	'93. Correct?
16	A. Correct.
17	Q. And to come to that opinion that we just
18	discussed or went over, correlating generally the severe
19	weather in '93 to possibly some of the events at Zoltek, do
20	you base that opinion on your 20 years of experience at
21	Ameren and the areas that you said you've worked at
22	worked in at Ameren as well as your educational experience?
23	A. Yes, I do. And if I just may add one other
24	thing, in 1993, the lightning in this area or in eastern

Missouri surpassed the amount of lightning that

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1	St. Petersburg and Tampa, Florida received.
2	And that area of the country traditionally,
3	year after year, is the highest incidents of lightning. And
4	in 1993 many areas, St. Louis was one of them, Mid-Missouri
5	surpassed Tampa, Florida in lightning. So it's
6	unprecedented to say the least. And just it was a
7	500-year flood and I'm just from the fact there was so
8	much of that, yes. Yes.
9	MR. PETERS: I have nothing further your
10	Honor.
11	JUDGE THOMPSON: Thank you, Mr. Peters.
12	You may step down Mr. Angeli. Again, I will
13	ask you to remain in case the Commissioners should have any
14	questions for you.
15	THE WITNESS: Yes, I am.
16	JUDGE THOMPSON: Although it's looking less
17	likely we'll have any Commissioners.
18	I believe we're ready now for Mr. Hackman.
19	MR. VITALE: Your Honor, before Mr. Hackman,
20	can we go off the record for a second
21	JUDGE THOMPSON: No, we can't. But we can
22	discuss this on the record.

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MR. VITALE: Just trying to understand

scheduling and you've asked -- Mr. Carr and Mr. Angeli have

to go back to St. Louis at some point. Do you think that --

1	JUDGE THOMPSON: I understand that.
2	MR. VITALE: They're rearranging schedules and
3	they're happy to do that. Do you think that may carry over
4	until tomorrow or do you think you'll be releasing them?
5	JUDGE THOMPSON: I'm trying to get information
6	from the Commissioners as to whether or not they're going to
7	be down here. As of now, I do not have any information.
8	MR. VITALE: Okay.
9	JUDGE THOMPSON: And I apologize, but that's
10	simply the nature of this business. I'm hopeful that we can
11	conclude the hearing today.
12	MR. VITALE: Well, that would be great.
13	JUDGE THOMPSON: Do you think there's a
14	possibility of that?
15	MR. VITALE: I'll shut up.
16	JUDGE THOMPSON: And we've got two hours and
17	10 minutes, two more witnesses. Maybe if I stop doing
18	45 minutes of questioning from the Bench, we can get through
19	a little more quickly. But let's take 10 minutes at this
20	point and then we'll proceed from 3:00 to 5:00 without any
21	further interruption. All right? Of course, we must give
22	our reporter a chance to recover.
23	(A RECESS WAS TAKEN.)
24	JUDGE THOMPSON: Who's our next witness?
25	Mr. Hackman? Let's get Mr. Hackman up here.

St. Louis. It's not that I've heard anything from the Commissioners, but if they want to ask you questions just deal with that in the future.  MR. VITALE: Thank you, your Honor.  JUDGE THOMPSON: Thank you very much for testimony and your courtesy today. Yes, you may go, Mr. Hulse. Mr. Wakeman cannot go. Where is he? You stuck, buddy, until we're done with you.  (Witness sworn.)  JUDGE THOMPSON: Please state your name the reporter, spell your last name, if you would.  THE WITNESS: My name is Jeffrey V. Had H-a-c-k-m-a-n.  JUDGE THOMPSON: Thank you.  You may inquire.  MR. PETERS: Thank you, your Honor.  JEFFREY V. HACKMAN testified as follows:  DIRECT EXAMINATION BY MR. PETERS:		
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Q. Mr. Hackman, my name's Dan Peters. I'm	21	JEFFREY V. HACKMAN testified as follows:
	22	DIRECT EXAMINATION BY MR. PETERS:
on behalf of AmerenUE. Who is your current employer	23	Q. Mr. Hackman, my name's Dan Peters. I'm here
	24	on behalf of AmerenUE. Who is your current employer,
25 please?	25	please?
25 please?	25	please?

1	Α.	Union	Electric.	doing	business	as	AmerenUE.

- Q. And what is your current position?
- 3 A. I'm the supervising engineer of the Wentzville
- 4 district.
- 5 Q. And how long have you been employed by
- 6 AmerenUE?
- 7 A. Twenty-one-plus years full-time.
- 8 MR. PETERS: Okay. May I approach, your
- 9 Honor?
- JUDGE THOMPSON: You may.
- 11 BY MR. PETERS:
- 12 Q. Mr. Hackman, I've handed you a document that
- is marked Exhibit 13 entitled the Rebuttal Testimony of
- 14 Jeffrey Hackman. Have you seen that document before?
- 15 A. Yes, sir, I have.
- 16 Q. Does that contain the written testimony you
- 17 provided the Commission in this matter?
- 18 A. Yes, sir, it does.
- 19 Q. And if you could take a moment to review it,
- 20 if you'd like, and inform the Commission of whether that is,
- in fact, your testimony in this matter?
- 22 A. Yes, sir, it is my testimony.
- 23 Q. And if you were asked those same questions
- today, would you answer in substantially the same manner?
- 25 A. Yes, sir, I would.

1	Q. Any corrections that you feel need to be made
2	to Exhibit 13?
3	A. No, sir.
4	MR. PETERS: Your Honor, I'd like to make an
5	offer of proof at this point.
6	JUDGE THOMPSON: Okay. You may. Let's go
7	ahead and mark this. Is this Mr. Hackman's proposed
8	Supplemental Rebuttal?
9	MR. PETERS: Correct, your Honor.
10	JUDGE THOMPSON: Let's go ahead and mark that
11	as Exhibit 38. And I should note as well that Exhibit 37,
12	the memo of Mr. Hulse, evidently was never offered or
13	received, so do you want to take
14	MR. MAY: If appropriate at this time, your
15	Honor, I'd move for its admission.
16	JUDGE THOMPSON: Do we have any objections to
17	the receipt of Exhibit 37, the memo of Mr. Hulse?
18	MS. SHEMWELL: No, your Honor.
19	MR. VITALE: No, your Honor.
20	JUDGE THOMPSON: Exhibit 37 is received and
21	made a part of the record of this proceeding.
22	(EXHIBIT NO. 37 WAS RECEIVED INTO EVIDENCE.)
23	(EXHIBIT NO. 38 WAS MARKED FOR
24	IDENTIFICATION.)
25	JUDGE THOMPSON: Please proceed Mr. Peters.
	1134

BY MR. PETERS:
Q. Mr. Hackman, I've handed you what has been
marked Exhibit 38 and appears to be Supplemental Rebuttal
Testimony of Jeffrey Hackman; is that correct?
A. Yes, sir, it is.
MR. MAY: Excuse me just one second, your
Honor. Just like to restate my objections with respect to
his Supplemental Rebuttal Testimony for the record, please.
JUDGE THOMPSON: Yes, indeed you may.
MR. MAY: Thank you.
MR. PETERS: And to clarify, your Honor, at
this time I'm making my offer of proof on AmerenUE's motion
to file the Supplemental Rebuttal Testimony of Jeffrey
Hackman.
JUDGE THOMPSON: Right. Your objections were
already sustained.
MR. MAY: Yes, sir.
JUDGE THOMPSON: And that was your objections
to the motion for leave to file supplemental. And since
they were not permitted to file the Supplemental Rebuttal
Testimony, then

Are you making an objection to the offer of proof? In other

MR. MAY: I was just preserving it for the

JUDGE THOMPSON: I understand. I understand.

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24

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record.

- words, do you feel that it is improper in some way to
- preserve it as an offer of proof?
- 3 MR. MAY: Your Honor, I simply wanted to in no
- 4 way waive my previous ruling or the objection I had stated.
- 5 That's all.
- 7 and I understand.
- Please proceed, Mr. Peters.
- 9 MR. PETERS: Thank you, your Honor.
- 10 BY MR. PETERS:
- 11 Q. Mr. Hackman, Exhibit 38 is a document that you
- 12 prepared?
- 13 A. Yes, sir, it is.
- 14 Q. And does that contain several what I will call
- 15 hand drawings?
- A. Yes, sir, it's does.
- 17 Q. And were those drawings prepared by you?
- 18 A. Yes, sir.
- 19 Q. And what do those drawings -- how many of them
- 20 are there, by chance?
- 21 A. There are, I believe, a total of seven of the
- 22 sketches that I prepared.
- Q. Okay. Those seven sketches that you prepared,
- 24 what do those seven sketches reflect?
- 25 A. They reflect my understanding of the

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<b>T</b>	electrical	Supply	LO	LITE	MISSOULI	Research	Park	TT OIII	LITE

- time period 1992 to 2001, plus or minus.
- 3 Q. Okay. And do those actually show your opinion
- 4 of where the electrical lines and other circuitry exist in
- 5 regards to service to the Research Park?
- 6 A. Yes, sir, they do. I was concerned through
- 7 some of the testimony heard in January that there was some
- 8 misunderstandings about what substations were which and what
- 9 function they had and what was switches and what were
- 10 circuits. One of the classic ones, someone was
- 11 talking -- I think it may have been Mr. May had asked about
- 12 the flow. I was just trying to get that information down so
- everyone could speak the same language.
- Q. Okay. So was it your purpose in submitting
- 15 the seven sketches to inform the Commission on the layout of
- the electrical service to Research Park?
- 17 A. Yes. A simplistic view, yes, sir.
- 18 MR. PETERS: Okay. That would end my offer of
- 19 proof, your Honor. At this time I'd offer Exhibit 13 into
- 20 evidence if it hasn't already been moved.
- 21 JUDGE THOMPSON: Do I hear any objections to
- the receipt of Exhibit 13?
- 23 MS. SHEMWELL: Yes, your Honor. I would raise
- 24 the same objections I raised this morning
- MR. PETERS: 13 is his direct.

1	JUDGE THOMPSON: 13 is the original pre-filed
2	rebuttal of Mr. Hackman.
3	MS. SHEMWELL: I have no objection to that,
4	your Honor.
5	JUDGE THOMPSON: Thank you, Ms. Shemwell.
6	MR. MAY: None, your Honor.
7	JUDGE THOMPSON: Hearing no objections to
8	Exhibit 13, the same is received and made a part of the
9	record of this proceeding.
10	(EXHIBIT NO. 13 WAS RECEIVED INTO EVIDENCE.)
11	MR. PETERS: And I tender the witness.
12	JUDGE THOMPSON: Exhibit 38 has been tendered
13	not as evidence, but as an offer of proof. Do I have hear
14	any objections to the offer of proof?
15	Hearing none, the same is received and
16	preserved in the record of this proceeding as an offer of
17	proof and not as substantive evidence.
18	(EXHIBIT NO. 38 WAS RECEIVED AS AN OFFER OF
19	PROOF.)
20	JUDGE THOMPSON: The witness has been
21	tendered.
22	Cross-examination, Ms. Shemwell?
23	MS. SHEMWELL: Thank you, your Honor.
24	CROSS-EXAMINATION MS. SHEMWELL:
25	Q. Mr. Hackman, my name is Lera Shemwell. I
	1138

1	represent the Staff of the Commission.
2	I'd appreciate a definition. On page 2 at
3	line 9 you've used the term "harmonic propagation." Could
4	you tell me what that means, please?
5	A. Yes, ma'am. I'm trying to make it reasonable
6	for everyone to understand. During the normal course of
7	operations of some electrical equipment, it can cause the
8	sinusoidal wave that Ameren provides to be distorted.
9	And it that distortion can be described
10	as I'm trying to make this simple. I'm sorry. Let's
11	just say that it can cause the wave form that is normally
12	provided to be ugly looking. And the that wave form can
13	go through an electrical system much differently than the
14	regular power that everybody uses.
15	So a very small value of harmonic power can be
16	seen as a very large event someplace far and removed, more
17	than you would expect that to be seen on the fundamental
18	frequency.
19	Q. Thank you.
20	A. I'm sorry. I wasn't able to do it any better.
21	Q. That's fine.
22	A. You want pictures, I got lots of them.

perfect power by Zoltek would be extreme cost. And I think

On page 3 you say the apparent need for

Q. I'll pass. Thank you.

23

24

25

1	we've kind of covered that with some of the earlier
2	witnesses as well. Would you agree with me though that some
3	customers need a higher quality power than other customers
4	because of operations, medical needs, any variety of
5	A. Yes, ma'am. I would certainly believe that.
6	Q. And for simplicity, someone who has a need for
7	medical equipment in their home and power to supply it, are
8	there steps that Ameren can take to assist them in getting a
9	higher quality of power? Are there some things you can do
10	to help them?
11	A. Yes, ma'am. Again, the amount I don't want
12	to confuse the issue. Let's do it in generalities. In
13	general, Ameren provides service electrical service based
14	on the rules and regulations and the tariffs.
15	And so as we deliver that power, if a customer
16	wants something in addition to what we would normally
17	provide all other customers, we may offer those other
18	options, but they would be classified as special service
19	facilities and they would be expected to contribute as a
20	contribution in aid of construction for those facilities.
21	So yes is the answer, but I hope that helps explain.
22	Q. So if I'm a residential customer and for
23	whatever reason I have special needs, let's say medical
24	equipment, you could provide, if I paid for it, some sort of
25	additional equipment, let's say, to get a better quality of

2	A. I will again, quality is kind of one of
3	those really broad terms. If we're I will Ameren is
4	very technically qualified. And I believe that we could do
5	anything that you would ask and we could probably charge you
6	for that.
7	Typically what residential customers would be
8	interested in is not having the lights out so often. And if
9	they were going to contract with make a provision for
10	better supply, if you will, it would be geared towards
11	having the electric there more often. And that's clearly
12	something that we do routinely for commercial and industrial
13	customers. Residential customers generally don't do it
14	because they have alternatives like like back-up
15	generation.
16	MS. SHEMWELL: I think that that's all I have
17	at this time. Thank you.
18	THE WITNESS: Thank you very much.
19	JUDGE THOMPSON: Thank you, Ms. Shemwell.
20	Mr. May?
21	MR. MAY: Thank you.
22	May I proceed?
23	JUDGE THOMPSON: You may.
24	MR. MAY: Thank you.
25	CROSS-EXAMINATION BY MR. MAY:

service?

-	_	~ 7	<b>C</b> ·		1
1	Ο.	Good	afternoon,	Mr.	Hackman.

- 2 A. Good afternoon.
- 3 Q. Good to see you again.
- 4 A. Thank you. Same to you.
- 5 Q. With respect to your Rebuttal Testimony,
- 6 Exhibit No. 13, I believe you have that before you.
- 7 Correct?
- 8 A. I do.
- 9 Q. How was that produced; in other words, did you
- 10 come up with the questions and answers or --
- 11 A. Yes, sir. I came up with -- let me back up.
- 12 We got into this confidential thing. The attorney told me I
- had to state my name and occupation. And other than that, I
- 14 prepared every one of these questions and every one of the
- 15 answers and -- and typed them, but actually did the original
- 16 thought process also. I just want to make this -- we had
- 17 this in the deposition and I want to make sure we're
- 18 together on this.
- 19 Q. I was not trying to invade your
- 20 attorney/client privilege.
- 21 A. I'm just trying to make sure you understand.
- 22 That's my job here.
- 23 Q. I understand. With respect to your testimony,
- 24 if we can go into it now on page 3 of your Rebuttal
- 25 Testimony --

1	Α.	Yes, sir.
2	Q.	I wanted to ask you about lines 1 and 2,
3	specifically	your statement that the apparent need for
4	perfect power	r by Zoltek, and it goes on to talk about the
5	cost. Okay?	You see that there?
6	Α.	Yes, sir.
7	Q.	As you use that term "perfect power" there on
8	page 3, how w	would you define perfect power?
9	Α.	A power the way I'm defining it here is to
10	be a power th	nat is absent of sags, interruptions or any
11	other electr	ical pertubations.
12	Q.	None, you're saying. Correct?
13	Α.	That is correct, sir.
14	Q.	Never? What I meant, never in time?
15	Α.	That that is correct.
16	Q.	So let me ask you then. On what basis do you
17	assert that a	apparently Zoltek has such a need for perfect
18	power, as you	u describe it?
19	Α.	I am I was going on the basis of the
20	testimony, wh	nich I had in my hand at the time this was
21	prepared from	n the Zoltek witnesses that described these
22	277 I bel:	ieve they termed them service quality incidents.

A. And that -- that each of those things -- at

least in my reading of their testimony, was that any one of

23

24

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Q.

Correct.

1	those things could cause terrible things to happen at the
2	Zoltek plant.
3	Of the events that we could match to an event,
4	some of those were sags. Okay? And I don't know a power
5	system that is absent of sags. So I would say that anybody
6	who says they can't live with sags needs perfect power.
7	Q. You have never seen any correspondence from
8	anyone at Zoltek where they were demanding perfect power as
9	you have defined it today?
10	A. Other than the testimony, sir? I mean, are
11	you saying did I ever see the word "perfect" or what are you
12	asking me, sir?
13	Q. Using your definition as you described today
14	of what perfect power constitutes, has anyone from Zoltek in
15	a letter or in some correspondence during the course of the
16	relationship did you ever see that demand be made?
17	A. I have only seen it inferred in their
18	testimony, sir.
19	Q. Meaning that you've inferred it from their
20	testimony?

21 A. Yes, sir.

Q. Okay. So the next question, no one's ever

23 communicated that to you from Zoltek, that they needed

24 perfect power as you've described it?

25 A. Other than Mr. Hulse's testimony just heard

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- 1 here earlier today when he said that Mr. Rumy had told him
- 2 in that meeting that he wanted no interruptions of any kind
- 3 at any time ever, that -- that I heard today so I do know
- 4 that now.
- 5 Q. I'm asking you though. Has anyone --
- 6 A. I mean, I heard that today in testimony, sir.
- 7 I don't know what you're asking me.
- 8 Q. I'm asking you. Has anyone ever from Zoltek
- 9 communicated to you directly this need for perfect power as
- 10 you've described it?
- 11 A. No, sir. Not from Zoltek. I didn't hear you
- 12 say that first. I apologize.
- 13 Q. Yes, sir. Now, with respect to -- on page 3,
- let's go to line 12. And this is the section where you're
- 15 talking about the service quality incidents log, is that
- 16 correct, starting on line 7 there on page 3?
- 17 A. Okay. Yes. Okay.
- 18 Q. Okay. Now, let's skip ahead to 12.
- 19 A. Okay.
- 20 Q. You say that this recording by the Zoltek
- 21 employees, you acknowledge that that's an excellent tool in
- the investigation of electrical issues on line 12?
- 23 A. Yes, sir. It's an excellent starting point
- 24 for those investigations.
- Q. Okay. Now, you go on to say on lines 13 and

2	this have some knowledge of evidence of an electrical event.
3	You see that sentence there?
4	A. Yes, sir, I do.
5	Q. What would the knowledge strike that.
6	What knowledge would an individual have to
7	have, in your estimation, to record an electrical event?
8	A. They would have to know that whatever
9	equipment disturbance that they're seeing or hearing or
10	whatever was somehow related to the electrical supply. For
11	instance, a motor groaning could be a result of electrical
12	stuff, but it also could be an overload.
13	When we were in deposition, the person in the
14	next conference room turned off the lights in our room.
15	Someone might have perceived that to be a power quality
16	room, when, in fact, someone in the adjoining conference
17	room turned the lights off. It's important to be able to
18	distinguish what are electrical supply issues from issues
19	that are outside of the electrical supply, sir.
20	Q. But in order to record that, in your example
21	you just had given that the lights had flicked, you would
22	need no knowledge beyond the ability to see, for instance,
23	that the lights had flicked. Correct?
24	A. If all you're trying to record is times
25	something happens, you could sure do that. If you're trying

14 obviously it is desirable that the employee recording

1	to say that those events are related to electrical supply or
2	to service quality incidents, I would think it very
3	advisable that the person know something and assume that
4	they were part of it. Because, otherwise, you would have
5	extraneous data included in your report which might lead you
6	on a wild goose chase as you try to solve the problem.
7	Q. Again, I just want to ask you that. With
8	respect to actually witnessing an event and recording it,
9	the only knowledge or ability one would have to have would
10	be, for instance, sight to be able to see that something's
11	occurred. Correct?
12	A. Again, I would like to repeat myself because I
13	believe you're asking the same question. If you're going to
14	report it on a service quality incident log which purports
15	to have something to do with electricity, the person should
16	know something about electricity.
17	If you're trying to just make a documentation
18	on the plant of any time something happens, I would agree
19	with you, sir, that just so long as you wanted to write down
20	something happened and call it a something happened log in
21	the plant, then I would say that what you said is true.
22	Q. Now, you also go on to say on lines 14
23	beginning with line 14 continuing on to 15 and ending on 16
24	that you didn't see the names of the employees and their
25	backgrounds listed so you cannot ascertain the quality of

1	the record. Do you see that?
2	A. Yes, sir.
3	Q. So, again, you looked at the service quality
4	incident chart where these events had been recorded, the
5	time, the duration, the nature of what had occurred.
6	Correct?
7	A. Yes. What I believed to be real durations,
8	but I learned in testimony were, you know, stopwatch
9	variety.
10	Q. Okay. With respect to that chart, however
11	A. Yes.
12	Q what would you need to know about that
13	person's background to determine whether that record was on
14	of sufficient quality in order to record the time, what the
15	had seen and the duration?
16	A. I would relate back to the things we had of
17	the previous question, sir. I think the person should know
18	the different if their evidence is a motor groan, that
19	they know what causes motor groans to determine whether or
20	not the motor groaning is a function of electrical supply of
21	an overload condition. They should have some knowledge

of Union Electric to have a sufficient electrical background

or knowledge in order for them to know whether they have

So you believe it's incumbent upon a customer

of -- of the electrical stuff, if will you.

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2	A. I don't believe I said that, sir.
3	Q. I'm asking you that question.
4	A. No. I don't think that's necessary.
5	Q. So
6	A. But I think all I'm saying, I don't think
7	it's necessary to determine the process, but I think if
8	you're going to say you have 270 service quality incidents
9	and you're saying that those are things Ameren is doing, you
10	probably ought to.
11	Q. Let's talk about the chart. You've seen a
12	copy of the log of the service quality incidents. Correct?
13	A. Yes, sir. I have seen a copy.
14	Q. And I'm asking you in light of what you've
15	seen on there, which is the duration, the date, the
16	equipment, possibly affected, you're saying strike that.
17	Should that person that recorded that have had
18	some electrical background?
19	A. The person should know whether or not if
20	they're going to include it on a log that purports to say
21	these are things caused by electrical system, they may not
22	need an electrical background, but they have to understand
23	whether it was electrically caused or something
24	operationally caused. I mean, otherwise, like I said,
25	you're going to put extraneous data in the investigation.
	1149

1 sustained an electrical event?

1	Q. Did you see on that particular log at any
2	place that they had listed the cause?
3	A. I don't remember, sir.
4	Q. On page 3, lines 20 through 22, you talk
5	about and I'm going to paraphrase here Zoltek's lack
6	of cooperation made such efforts nearly impossible. Do you
7	see that?
8	A. Yes, sir.
9	Q. Now, you weren't involved with Zoltek during
10	this time, were you?
11	A. What time, sir?
12	Q. Between 1993 and 2000.
13	A. I've been at the Wentzville district since
14	mid-1996, sir.
15	Q. Okay. Were you involved with Zoltek during
16	that time?
17	A. Well, let's define "involved," please, sir,
18	and then I'll be able to answer.
19	Q. Well, did you have any contact with anyone at
20	Zoltek?
21	A. Plant manager, and I don't remember who it
22	would have been, would have called me on occasion.

23

24

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sir.

Q.

A.

Okay. Have you visited the Zoltek plant?

I have seen the facility from the outside,

1	Q.	You've never been inside the plant?
2	Α.	I have not been inside.
3	Q.	Okay. Well, on what basis do you make the
4	assertion tha	t Zoltek was uncooperative?
5	Α.	From my discussions with Mr. Wakeman.
6	Q.	But you have no personal knowledge of them
7	being uncoope	erative?
8	Α.	That is correct. They've never said no to me.
9	Q.	Okay. I'm going to skip ahead to page. 6 I'm
10	going to jump	around on you a little bit. Okay?
11	Α.	That's fine.
12	Q.	On page 6, you again talk about the service
13	quality incid	lents and you talk about a correlation to
14	AmerenUE's OA	S records; is that correct?
15	Α.	Yes, sir.
16	Q.	Okay. Now, have you looked at the monitoring
17	results for 1	993?
18	Α.	No, sir.
19	Q.	1994?
20	Α.	No.
21	Q.	2000?
22	Α.	No.

Q. On page 7 -- now, you say on line 7 of

page 7 -- are you at that page?

A. Yes, sir.

24

25

1	Q.	My belief is that Zoltek has service needs
2	that are uniq	que from our other customers?
3	Α.	Yes, sir.
4	Q.	And then on what basis do you make that
5	assertion?	
6	A.	I think the following line. It appears that
7	where other o	sustomers can ride out sags without any tangible
8	effects on th	meir manufacturing process, Zoltek's plant shuts
9	down.	
LO	Q.	Okay. So are you familiar with or do you have
L1	any knowledge	about incidents where there have been sags
L2	that Zoltek h	as been able to ride out?
L3	Α.	Other than the testimony, no, sir.
L4	Q.	Okay. Okay. Let's go on to line 9 through
L5	11, those lin	nes on page 7.
L6	A.	Okay.
L7	Q.	And we're continuing with this line of
L8	questioning a	bout your belief that their service needs are
L9	unique. You	say, This belief was affirmed by the monitoring
20	conducted in	2000 which showed that Zoltek's manufacturing
21	equipment was	s overly sensitive.
22		You see that?
23	A.	Yes.
24	Q.	I believe your earlier testimony was you have

not seen those results; is that correct?

25

1	A.	I have not seen those results. This refers to
2	conversations	that I've had with the people involved. And
3	Mr. Wakeman w	ill be able to speak to that better.
4	Q.	You also talk on lines 12 through let's say
5	lines 12 and 3	13 on page 7 you said, What also makes Zoltek
6	unique is that	t they did not install equipment to help them
7	mitigate these	e events; is that correct?
8	Α.	Yes, sir.
9	Q.	Now, are you familiar with some of the UPS
10	equipment that	t Zoltek has installed?
11	Α.	I'm familiar that they have some UPS
12	equipment, yes	s, sir.
13	Q.	Do you believe that those aren't designed to
14	help mitigate	these events?
15	Α.	I believe they may be designed to, but
16	apparently the	ey're not.
17	Q.	Nonetheless, though, they did install some
18	equipment; is	that right?
19	Α.	Well, they may have they have may not
20	they may have	installed, but it is not installed which helps
21	them mitigate	. That's the point, sir. Whether they applied

Q. Is there some equipment that they should have installed?

didn't stop the bleeding.

22

23

a Band-aid or not, if they applied it in the wrong spot, it

1	Α.	Without	а	power	quality	investigation,	sir,	I
2	wouldn't want	to guess	з.					

- 3 Q. Okay. Okay. Let's go to the bottom of
- 4 page 7, line 17 beginning there -- the question is whether
- 5 Ameren had made any changes to electrical system that feeds
- 6 Zoltek and the rest of the park. You see that question?
- 7 A. Yes, sir.
- 8 Q. Okay. And then let's start with in '93 you
- 9 talk about the transformer at Weldon Springs was changed
- 10 from 14 MVA of capacity to 22 MVA of capacity, lines 19 and
- 11 20. You see that?
- 12 A. Yes, sir.
- 13 Q. Was that done in response to Zoltek's problems
- or concerns?
- 15 A. As we mentioned in the deposition, sir, if you
- 16 mean was it a -- was it a function of perhaps Zoltek talking
- 17 to the district staff at the time about increasing the load
- 18 additions or additional machines or some of the things,
- 19 carbonizers, those kinds of things that they've got, it may
- 20 have been. I don't know.
- 21 Was it directly related to the quote, unquote
- 22 service quality incidents? No. It was for capacity and
- overall reliability of the area.
- Q. And I would ask you again with respect to the
- 25 next sentence, 1994 to '95 you talk about some changes, the

-	7 -
	reclosers?

- 2 A. Yes, sir.
- 3 Q. I would ask you the same question about that.
- 4 Was that done directly to assist Zoltek with its service
- 5 situation?
- 6 A. My answer will be the same, sir. It may have
- 7 been for the overall reliability of the area of which Zoltek
- 8 was a part of for capacity additions which Zoltek may or may
- 9 not have needed, but it was not done solely for the purpose
- 10 of service quality incidents.
- 11 Q. Not to put words in your mouth, but with
- 12 respect to '96 and '97 and the '98 changes you reference
- here on pages 7 and 8, it would be your same answer?
- 14 A. Yes, sir. It sure would.
- Q. With respect to 2000 as well?
- 16 A. Yes, sir. All of those, so we can save each
- other some speaking.
- 18 Q. Yes, sir. Thank you, sir.
- 19 A. Thank you very much.
- 20 MR. MAY: I don't think I have anything else
- 21 at this time, your Honor.
- JUDGE THOMPSON: Thank you, Mr. May.
- 23 QUESTIONS BY JUDGE THOMPSON:
- Q. Now, Mr. Hackman, you are the engineer in the
- 25 district?

1	Α.	Yes, sir. I am the supervising engineer of
2	the Wentzvill	le district.
3	Q.	Are there other engineers that you supervise?
4	Α.	Yes. There are three engineers that work for
5	me.	
6	Q.	And are you personally familiar with the
7	facilities th	nat deliver power to the Zoltek plant?
8	Α.	Yes, sir, I am.
9	Q.	And you've inspected them yourself?
LO	Α.	Yes, sir, I have.
L1	Q.	And are you satisfied in your professional
L2	opinion that	the Union Electric facilities are adequate for
L3	the amount of	power that Zoltek uses?
L4	Α.	Yes, sir, I am.
L5	Q.	Now, have you had an opportunity to inspect
L6	the facilitie	es on the Zoltek side?
L7	Α.	I have not, sir.
L8	Q.	So you have no knowledge as to whether or not
L9	they are adeq	quate?
20	Α.	No, sir.
21	Q.	And your testimony suggests that there's been
22	a lack of coo	operation by Zoltek; is that correct?
2.3	Α.	Yes, sir. What if I may expound, sir.

A. I believe that the Zoltek are good people. I

Q. Please.

24

25

1	believe that Ameren has good people. I think that the
2	biggest issue is that we haven't been able to do what we
3	really need to do to find out what's going on at the plant.
4	Q. So there is some sort of investigation or some
5	degree of investigation that you would recommend or that you
6	would want to see done in order to diagnose the cause of
7	these problems?
8	A. Yes, sir. I've been involved in many of these
9	kind of things since I was first in the district in 1988, I
10	believe. I've had many, many, many occasions like this.
11	And and the the way to do these studies
12	is to go all the way from start to finish and then find out
13	what comes out of them. To just to just monitor is not
14	good enough. You have to really find out what the choices
15	are. The things that our power quality people can do are
16	really important in solving these kinds of difficult issues.
17	Q. Okay. I think your testimony suggests that
18	it's your professional opinion that the Zoltek equipment may
19	be unusually sensitive; is that correct?
20	A. Yes, sir. Based on their testimony, which
21	indicates that many of these system sag generated events
22	cause them problems, yes, sir, I believe that.
23	Q. But in the absence of a more thorough
24	investigation, it's true you cannot be sure; isn't that
25	correct?

1	Α.	That is absolutely correct, sir. That is just
2	my considered l	belief at this point.
3		JUDGE THOMPSON: Okay. I have no further
4	questions. The	ank you, Mr. Hackman.
5	•	THE WITNESS: Thank you, sir.
6		JUDGE THOMPSON: Time for recross based on
7	questions from	the bench.
8	1	Ms. Shemwell?
9	1	MS. SHEMWELL: No questions. Thank you, your
10	Honor.	
11	·	JUDGE THOMPSON: Mr. May?
12	1	MR. MAY: No questions, your Honor.
13	·	JUDGE THOMPSON: Redirect?
14	REDIRECT EXAMI	NATION BY MR. PETERS:
15	Q. 1	Mr. Hackman, Dan Peters again. I'd like to
16	ask you a few	questions.
17		You were asked some questions about your
18	Direct Testimo	ny and it was in regards to the possibility
19	that Zoltek's	equipment is unusually sensitive and that
20	other customer	s can ride out sags. Correct?
21	Α.	Yes, sir.
22	Q.	Okay. I'd like to talk a little bit about the
23	system out the	re and maybe you can provide some information
24	to back this up	p, maybe it would be quicker, but it's my

understanding that there's a looped system or some type of

25

1	system within the Research Park and that there are different
2	customers, different tenants within the park that are
3	receiving the same electric as Zoltek; is that correct?
4	A. Yes. That's correct. The main supply or the
5	main circuits that come out of the Weldon Springs substation
6	that feed into the Research Park, there is no one circuit
7	that serves just Zoltek. Other customers are served with
8	the line that serves Zoltek.
9	Q. Where does the electric come from? There was
10	some testimony earlier about a substation, how close it is
11	to the park. Where does the electric come from as it goes
12	then into the park?
13	A. Yeah. The distribution substation, which
14	would take power from a sub-transmission level, which would
15	be like across a county line that steps it down to a voltage
16	that we can use to serve customers is the Weldon Springs
17	substation. And it's approximately a half a mile
18	circuit-wise from the Missouri Research Park.
19	Q. Okay. And what type of system then is within
20	the park as it comes from the substation to the park?
21	A. Within the park, there is there are
22	underground cables that go through the park in a looped
23	system to provide service to the customers such that if one
24	of the cables were to fail, the other excuse me the
25	other cut cable could pick up that load.

1	Q. Okay. Is it correct that if Zoltek
2	experienced a sag, that one or more customers other
3	customers within the park would experience a sag?
4	A. Yes, sir, absolutely.
5	Q. And why is that true?
6	A. Because they're all electrically connected.
7	In my testimony, I talk about the event and this is a
8	very real thing. Mr. Park in his testimony kind of made
9	light of it, but it's very true, and Mr. Angeli also
10	addressed it, that events anywhere on the transmission
11	system are seen by everybody. Depending on the extent of
12	the event, it depends on whether anyone sees them or not.
13	But if we have transmission lines that go down
14	in ice storms from Minnesota to Missouri, I guarantee you
15	everybody's going to see something, so that is the case.
16	Anything that's going to occur, everybody's going to see
17	something. Now, the extent they see it
18	Q. But I'm speaking more particularly about the
19	people within the park.
20	A. Yes. Definitely. The closer that you are to
21	the same facility, the more you're going to see the same
22	impact. Thank you for clarifying keep me on track here.
23	The people that are next to Zoltek electrically are going to
24	see exactly the same extent. It's not mitigated by
25	impedance or anything like that.

1	Q. Well, just again for my layperson
2	understanding, I think you've kind of made some drawings for
3	me and Mr. May before, but isn't it that the substation
4	could you take, like, a straight line from the substation to
5	the park and then draw a circle within the park? Would that
6	be a very layperson description of the underlying wires
7	within the park?
8	A. Right now, sir, there's two of those wires
9	that go into the cables and loop around. And up until we
10	sorry, technical failure here. And up until we added the
11	second circuit, that was the case. We had one line with a
12	loop of cables around.
13	Q. One line I'm sorry?
14	A. I'm sorry. I apologize. The microphone
15	messed you up.
16	What we had up until the second circuit was
17	added because the capacity
18	Q. Let's take them one step at a time.
19	A. Can I check my testimony so I don't mess this
20	up, Dan?
21	JUDGE THOMPSON: Let's everybody relax. We're
22	not in that big of a rush.
23	THE WITNESS: In 2000, sir, before the summer
24	peak of 2000, we added a second 12-kV distribution circuit

into the Missouri Research Park. I was sure that was right.

25

- 1 I just wanted to make sure.
- 2 BY MR. PETERS:
- 3 Q. Okay. So that's the straight line that we're
- 4 talking about --
- 5 A. Yes.
- 6 Q. -- from the substation?
- 7 A. Up until 2000 there was one straight line that
- 8 came from the Research Park. It went into two cables, it
- 9 went around inside the Research Park and served all the
- 10 customers in there.
- 11 So anything that happens on that line or that
- 12 substation or the sub-transmission circuit or the
- transmission all the way back to the generating plants,
- 14 everyone that's in the park seen the same thing.
- 15 Q. Is that the loop that's inside the park, that
- 16 circle?
- 17 A. Yes. That circle thing of cables is the loop,
- 18 yes.
- 19 Q. Okay. And do you know when that was
- 20 installed?
- 21 A. Based on the evidence in the files, I believe
- 22 it was put in before Zoltek was in the -- in the park.
- 23 Q. Okay. So the loop system was put inside the
- 24 park before Zoltek was put in, to your understanding?
- 25 A. Yes, sir, that is correct.

1	Q. Okay. Now, and I think you just testified
2	that then because of that loop, that the customers within
3	the park are on that same loop system, they would be
4	experiencing the same electrical events that each other
5	experiences?
6	A. Yes, sir, that is correct.
7	Q. Okay. Now, you were asked questions on cross
8	about whether you have knowledge of other customers riding
9	through sags or whether you know of Zoltek riding through
10	sags. And you said you may have seen some evidence of that?
11	A. Of Zoltek, sir. In their previous in the
12	January testimony, and I don't remember which witness, I
13	believe there was some talk about a particular sag that
14	the that there was no apparent record that there was
15	was an event.
16	I don't obviously, you know, I was just
17	listening so I really can't tell you. I didn't see all the
18	documentation. So we really don't know whether there was
19	any equipment running at the time, but there was at least
20	one time there was a quote, unquote service quality event
21	when there was not a plant perceived plant problem. So I
22	can't speak to that. I believe I I hope I said that the
23	same way.
24	Q. Okay. Now, I think it's been a little unclear
25	to me and I'm not suggesting that Zoltek is representing

1	this.	but.	if	 vou	said	VOU	are	familiar	with	t.he	277

- 2 service quality incidents. Correct?
- 3 A. Yes, sir.
- 4 Q. If, hypothetically, Zoltek was representing
- 5 that those 277 things were sags, would it then be true that
- 6 the other customers within the park on the same loop would
- 7 have experienced those same sags?
- 8 MR. MAY: Your Honor, I would object to the
- 9 form of the question, calls for speculation, also a lack of
- 10 foundation of the very nature of the question.
- 11 JUDGE THOMPSON: Objection's overruled. You
- 12 may answer, if you can.
- 13 THE WITNESS: Yes. The -- not only just sags,
- 14 sir. On the events --
- 15 BY MR. PETERS:
- 16 Q. Now --
- 17 A. -- on the 277 service quality incidents --
- 18 JUDGE THOMPSON: Mr. Peters, please allow him
- 19 to complete his answer. Thank you.
- 20 THE WITNESS: Maybe I didn't hear the
- 21 question, if he thinks I'm going wrong. Could I hear the
- 22 question repeated?
- 23 JUDGE THOMPSON: I realize that you and
- Mr. Peters are on the same side, but we must nonetheless
- 25 preserve the appearance of you answering the questions that

- 1 he asks.
- 2 THE WITNESS: And I'd be glad to do that, sir,
- 3 but I really don't --
- 4 JUDGE THOMPSON: Ms. Reporter, would you
- 5 please read back the last question we had for Mr. Peters?
- THE COURT REPORTER: Question: If,
- 7 hypothetically, Zoltek was representing that those 277
- 8 things were sags, would it then be true that the other
- 9 customers within the park on the same loop would have
- 10 experienced those same sags?"
- JUDGE THOMPSON: May we have an answer,
- 12 please, to that question?
- 13 THE WITNESS: Yes, sir. I'm sorry. And the
- 14 answer is yes.
- JUDGE THOMPSON: Thank you.
- 16 Please proceed, Mr. Peters.
- 17 MR. PETERS: Thank you, your Honor.
- 18 BY MR. PETERS:
- 19 Q. I'm sorry, Mr. Hackman, I've lost my place.
- 20 Did you find in your Direct Testimony where you were asked
- 21 those questions about Zoltek's ability to ride through sags?
- I wrote it down line 7 through 9, but I didn't write the
- 23 page.
- 24 A. I think it's -- page 7, I believe was where
- 25 Mr. May had asked me -- or we talked about consequently if a

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- Q. Okay. Correct. Thank you.
- A. I believe it's line 5.
- Q. Right. And page 7 of your Direct Testimony,
- 5 line 5 says, Consequently, if a sag occurs, all customers in
- 6 Missouri Research Park should be seeing them. Interesting
- 7 that Zoltek is the only one seemingly affected by these
- 8 things.
- 9 I guess maybe you were very clear in your
- 10 testimony there, but is it correct then to say that if
- 11 Zoltek is representing that those 277 incidents were sags,
- 12 that the other customers within the park would have
- 13 experienced those same sags. Correct?
- 14 A. Yes.
- 15 Q. And however far your knowledge takes you back,
- are you aware of any other customers within Missouri
- 17 Research Park complaining about sags or service quality
- 18 incidents?
- 19 A. No, sir.
- 20 Q. And how many customers approximately are there
- 21 currently at Missouri Research Park?
- 22 A. Strictly as a guess, because they move in and
- out of tenant spaces, I would guess on the order of 20, sir.
- Q. Okay. Do you know how many there may have
- 25 been back in '93?

2	probably.
3	Q. So that the number has increased from '93 to
4	the present. Correct?
5	A. That is correct, sir.
6	Q. Okay. Now, given that I given the
7	acknowledgment that I don't know that Zoltek is saying that
8	those two 277 incidents are sags or what they necessarily
9	mean by service quality incidents, but I'm taking from the
LO	testimony that someone observed something at Zoltek and they
L1	then at some point voiced their complaints to AmerenUE about
L2	the power. Is that your understanding?
L3	A. Yes, sir. I don't believe that we ever saw
L4	the 277 log prior to to some other action, but they would
L5	have called us on those issues.
L6	Q. Okay. Generally speaking, not limited to just
L7	other customers complaining about sags or service quality
L8	incidents, but has there been anyone else at the Missouri
L9	Research Park that has had complaints anywhere near Zoltek's
20	complaints, in your understanding?
21	A. To my knowledge, sir, no. We've had customers
22	within the Research Park call and ask about if an
23	extended interruption occurs, they might say what happened
24	and we would relay that information, but no one has said we
25	have too many of them, to my knowledge.

1 A. I would guess that to be on the order of eight

2	or were trying to testify that you haven't been able
3	AmerenUE has not been able to do the full type of
4	investigation that it would take to determine the problems
5	out at Zoltek. Correct?
6	A. That's correct.
7	Q. But you are aware that there had been some
8	monitoring. Correct?
9	A. Yes, sir.
10	Q. Could you explain any difference in your mind
11	between the monitoring that was done and the investigation
12	that you're saying wasn't done?
13	A. Yeah. I would be glad to. And I believe
14	Mr. Bradley also alluded to this fact in his previous
15	testimony. There's a difference between just monitoring
16	and and capturing data and and going out and doing a
17	full investigation to look at that data in correlation with
18	what equipment is running in the plant, as well as what are
19	the electrical parameters of operation for that equipment so
20	that you can decide what needs to be done in these kinds
21	of in this kind of a study. I call that more of an
22	investigation than just monitoring.
23	Monitoring is is kind of like the
24	contemporaneous log of Zoltek. Those are good starting
25	points and those are the foundation on which we build, but
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1 Q. Okay. I think you made a distinction earlier

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- 2 has to be done.
- 3 Q. Okay. And, again, you were questioned about
- 4 your opinion that perhaps Zoltek's equipment is too
- 5 sensitive and then his honor asked you some follow-up
- 6 questions in that regard. And I believe you stated that you
- 7 can't definitively come to that conclusion without doing the
- 8 investigation and that's the investigation you just outlined
- 9 for us. Correct?
- 10 A. Yes, sir. That is correct.
- 11 Q. Okay. And does your opinion that Zoltek's
- 12 equipment may be too sensitive, is that based at all on what
- 13 you were telling us about -- that other customers within the
- 14 park would have experienced the same sags if, in fact, they
- 15 occurred?
- 16 A. Yes, sir. That it part of the foundation,
- 17 yes, sir.
- 18 MR. PETERS: Okay. Just one moment, your
- 19 Honor.
- JUDGE THOMPSON: Certainly.
- 21 BY MR. PETERS:
- 22 Q. Just one final question, maybe a couple
- 23 questions. You heard the testimony earlier of Mr. Hulse and
- 24 a letter, I believe it was marked Exhibit 36. Did you hear
- 25 the testimony earlier where Mr. Hulse was questioned about

some changes to the system that he had represented i	n	а
--	---	---

- 2 letter of August 10th, '93 that were going to be taking
- 3 place at the park?
- 4 A. Yes, sir.
- 5 Q. Let me hand you Exhibit 36. Have you seen
- 6 Exhibit 36 before?
- 7 A. Yes, sir, I have.
- 8 Q. Can you give an opinion as to whether anyone
- 9 could say that those items listed in Exhibit 36, if those
- 10 changes or improvements were actually made, if they would
- 11 address Zoltek's complaints as set forth in the list of 277
- 12 service quality incidents?
- 13 A. I'm going to answer the question I believe you
- 14 asked me. None of these three -- well, there's only two
- 15 things, one of them is excessive thunderstorms. But the two
- things listed would not have addressed service quality
- 17 incident problems. Is that the question you asked, sir?
- 18 Q. Yeah. The two.
- 19 A. The two, yes, sir.
- 20 Q. Yeah.
- 21 A. Okay.
- 22 Q. They would not have addressed --
- 23 A. Would not have addressed service quality
- 24 incident problems. They would have been for capacity and
- 25 reliable reasons.

1	Q. And you're aware of a lot of improvements
2	is that the correct word? Mr. May asked you about several
3	things that you've put forth in your testimony that were
4	done out at the Wentzville facility since '93, and you've
5	said that they were for overall capacity and reliability.
6	You're familiar with those items that have been changed or
7	improved. Correct?
8	A. Yes, sir, I am.
9	Q. If Zoltek is still complaining about those
10	things today, then would it be your opinion that those items
11	did not address Zoltek's concerns as far as service quality
12	incidents?
13	A. Yes. I would have to make that opinion. The
14	whole answer is that we may have helped them in some regard
15	because all those things tend to stiffen the system, which
16	makes it less saggy. I mean, that's just the way it's
17	part of the reliability process, the capacity process. So
18	the answer is they may have helped them a little bit.
19	Q. Okay.
20	A. But if they're still complaining in bulk, I
21	would say it did not address the issues.
22	Q. So we have a couple items listed on
23	Mr. Hulse's letter, Exhibit 36, and we have the items listed
24	in your Direct Testimony improvements that were made, and
25	then you've also testified about not being able to complete

1	วท	investigation	+ha+	masz	harro	rowalad	COMO	other	things
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- 2 that could have been done. Correct?
- 3 A. Yes, sir.
- 4 Q. Now, my question is, has anyone from Zoltek
- 5 ever told you or anyone at AmerenUE, as far as you know, of
- 6 something that AmerenUE should have done which would then
- 7 remedy their problems?
- 8 A. No, sir. I'm not aware of any such requests.
- 9 MR. PETERS: Okay. Nothing further, your
- 10 Honor.
- JUDGE THOMPSON: Thank you.
- 12 FURTHER QUESTIONS BY JUDGE THOMPSON:
- 13 Q. You know, I have one more question for you and
- 14 this will probably start off a whole other round. The
- 15 question is this. The original service line that served the
- 16 Research Park before an additional line was added, do you
- 17 know if that line continued on beyond the Research Park to
- 18 serve other customers?
- 19 A. As it does today, yes, sir.
- Q. Yes, it does. Do you know how long it is in
- 21 all?
- 22 A. At what time period, sir?
- Q. Well, how long is it today?
- A. There is approximately a one-mile single
- 25 phased tap on the line. And then -- and then what needs to

- 1 be remembered is that that circuit -- that one of the
- 2 circuits originally -- that same circuit originally
- 3 continues from its beginning -- it serves a subdivision -- a
- 4 housing development within the Research Park which is
- 5 overhead. So I don't know how you consider that -- whether
- 6 that's part of that tap or -- I mean, it's -- that's why I
- 7 wish you had my drawings, my sketches, because I think it
- 8 would help a little bit, but --
- 9 Q. All I'm trying to understand, from some
- 10 previous testimony it was indicated that a line was more
- 11 exposed depending on how long it was. So what I'm trying to
- 12 understand is how long this line is. And if you can't
- answer the question, that's fine.
- 14 A. Today there's the -- the cables in the park on
- each of the lines -- you want the -- there's -- I'm not
- 16 trying to be evasive.
- 17 Q. I understand.
- 18 A. I'm just trying to understand your question.
- 19 I apologize for my stupidity.
- Q. I think it's probably my stupidity.
- 21 A. No. I'm sure it's not. I'm just not able to
- 22 explain it very well.
- 23 Let's talk about just the line that feeds
- 24 Zoltek.
- Q. Let's talk about that.

1	Α.	Today in this very minute.
2	Q.	Okay.
3	Α.	The line has approximately a one-mile single
4	phase tap, whi	ch has a fuse on it so that theoretically
5	anything that	happens downstream would not cause an
6	interruption t	o Zoltek and that's the only exposure.
7	Prior if I	may, sir.
8	Q.	Yes, you may.
9	Α.	I think it may help clarify. Prior to that
10	second line be	eing added, when there was only one line, there
11	was that sa	ame one-mile section existed. And and
12	within the par	ck there was there is a subdivision that was
13	from the days	when the Research Park was part of the Army's
14	ammunition are	ea.
15		And that subdivision still exists and that's
16	overhead expos	sure also, but that is also behind a fuse.
17	When up unt	il the reclosers, which is the 1994, 1995 item
18	in my testimor	y, the reclosers were replaced with circuit
19	breakers. Up	until that time, so from '92, '3, '4,
20	somewhere in t	that range, there was a fairly long line
21	extension that	went to a town called Defiance approximately,
22	I would say, b	between 10 and 15 miles long, but it also had a

fuse from where it -- from where it was common with the

So, in other words, if a pole went down, a car

Zoltek supply to where it left.

23

24

25

1	hit a	pole	on	this	windv	road	and	t.ook	it	down	that	fuse

- 2 should blow, but everyone would see that slight dip while
- 3 the fuse -- before the fuse had a chance to operate. So I
- 4 hope that's the whole answer, sir.
- 5 Q. That was extremely helpful. Thank you.
- JUDGE THOMPSON: Do we have any recross based
- 7 on that additional question, Ms. Shemwell?
- 8 MS. SHEMWELL: No, your Honor. Thank you.
- JUDGE THOMPSON: Mr. May?
- MR. MAY: No, thank you.
- 11 JUDGE THOMPSON: Any redirect based on that
- 12 additional question?
- MR. PETERS: No, your Honor.
- 14 JUDGE THOMPSON: Thank you. You are excused
- 15 sir. You may step down.
- 16 We have a witness, Mr. Wakeman. You've had to
- 17 wait all day, Mr. Wakeman. I apologize.
- 18 (Witness sworn.)
- 19 JUDGE THOMPSON: Please take your seat, state
- $20\,$  your name for the reporter and spell your name, if you
- 21 would.
- 22 THE WITNESS: David N. Wakeman, W-a-k-e-m-a-n.
- JUDGE THOMPSON: You may proceed.
- MR. PETERS: Thank you, your Honor.
- DAVID N. WAKEMAN testified as follows:

1	DIRECT EXAMINATION	N BY MR. PETERS:
2	Q. Goo	d afternoon, Mr. Wakeman. My name's Dan
3	Peters, and I'm r	representing AmerenUE this afternoon. I'd
4	like to ask you a	couple questions.
5	Cou	ald you please state your current employer?
6	A. I'n	employed by AmerenUE.
7	Q. And	how long have you been employed by
8	AmerenUE?	
9	A. For	approximately 20 years.
10	Q. And	what is your current position with
11	AmerenUE?	
12	A. I a	m a supervising engineer in reliability
13	support services	group.
14	Q. And	clarifying with Mr. Angeli, is that the
15	staff area as opp	osed to a district area?
16	A. Yes	. It's in the operating department
17	actually.	
18	Q. Dov	ntown?
19	A. Yes	. That's correct.
20	Q. Cou	ald you summarize your prior positions over
21	the past 20 years	prior to your current position?

engineer, which is the supervisor in control and data

you're most interested in, I've been involved in the SCADA

acquisition system for substations. And I've been involved

Okay. In the engineering area, which I assume

22

23

24

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- in the area of power quality, radio and television
- 2 interference, voltage complaint, customer switchgear,
- 3 customer generation.
- 4 Q. Thank you.
- 5 MR. PETERS: May I approach, your Honor?
- 6 JUDGE THOMPSON: You may.
- 7 BY MR. PETERS:
- 8 Q. Mr. Wakeman, I've handed you Exhibit 14, which
- 9 is your Rebuttal Testimony. Is that your testimony which
- 10 has been filed in this proceeding?
- 11 A. Yes, it is.
- 12 Q. And does Exhibit 14 represent testimony that
- 13 you've prepared yourself to be provided to the Commission in
- 14 this proceeding?
- 15 A. Yes, it does.
- 16 Q. And is the testimony accurate, to the best of
- 17 your knowledge and ability?
- 18 A. Yes, it is.
- 19 Q. And if you were asked these same questions,
- 20 would you give any different answers today?
- 21 A. No, I would not.
- 22 Q. Do you feel there are any corrections that
- 23 need to be made?
- 24 A. Yes. There are a couple of areas I'd like to
- 25 correct.

-	_	- 1
1	().	Okay.

- 2 A. One would be on page -- these pages -- oh,
- 3 they're just total line numbers. Okay. Page 1, line 27,
- 4 there's a reference to 1995. That should be changed to
- 5 1997.
- 6 Q. Okay.
- 7 A. And on the following page on line 1, the five
- 8 years later then would go to three years later.
- 9 Q. I'm sorry. Okay. Line 1 on page 2?
- 10 A. Right. And then line 4 again and line 6, both
- 11 those '95s go to 1997.
- 12 Q. Okay.
- 13 A. And there's one other area I'd like to clarify
- just as listening to the testimony today that -- we talk
- 15 about monitoring, we talk about investigations and probably
- to a lot of people it may seem like the same, but to
- 17 somebody it's your career, it's quite a difference. And so
- on page 8, line 1 and line 3 both use the word
- 19 "investigation." And that would be more properly
- 20 characterized as monitoring.
- 21 MS. SHEMWELL: Can we have the reference
- 22 again, please?
- 23 THE WITNESS: Line 8 -- page 8, excuse me --
- line 1 and line 3. The word "investigation" is used in each
- one of those lines and it should be monitoring to be more

1	accurate.	
2	BY MR. PETERS	::
3	Q.	Any other corrections?
4	А.	No, sir.
5	Q.	Just briefly let me hand you Exhibit 23.
6	Α.	Yes, sir.
7	Q.	And is Exhibit 23 letters that you've
8	prepared?	
9	А.	Yes. That's correct.
10	Q.	Do those letters reference the '95 versus '97
11	dates that	
12	Α.	Yes, that's correct. The date on this letter
13	is clearly 19	97, which is when I had that meeting and
14	follow-up let	ters to Zoltek Corporation.
15	Q.	And that's what you're referring to in your
16	Direct Testim	ony?
17	Α.	That is correct.
18	Q.	Okay.
19		MR. PETERS: Your Honor, I'd tender the
20	witness at th	is point.
21		JUDGE THOMPSON: How about receiving 14?

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evidence.

of Exhibit 14?

MR. PETERS: Right. We'd move Exhibit 14 into

JUDGE THOMPSON: Any objections to the receipt

1	MR. MAY: None, your Honor.
2	MS. SHEMWELL: No, your Honor. Thank you.
3	JUDGE THOMPSON: Hearing no objections,
4	Exhibit 14 as corrected is received into the record of this
5	proceeding.
6	(EXHIBIT NO. 14 WAS RECEIVED INTO EVIDENCE.)
7	JUDGE THOMPSON: I believe we're ready for
8	some cross-examination. Ms. Shemwell?
9	MS. SHEMWELL: Thank you, your Honor.
10	CROSS-EXAMINATION BY MS. SHEMWELL:
11	Q. Good afternoon, Mr. Wakeman. I'm Lera
12	Shemwell representing the Staff.
13	On page 7, the answer at the bottom, I think
14	about line 17, 18 you're talking about to avoid the effects
15	of outages, customers may elect to install back-up
16	generation.
17	But you're suggesting that generation would
18	not affect sags; is that correct?
19	A. That is correct. Would you like me to
20	elaborate on that or
21	Q. Sure.
22	A. Okay. Well, generation is typically a device
23	used to mitigate outages. And on most generating
24	facilities, it takes about 10 seconds to get to a fully

running generator of plant.

25

1	So from the time an event occurred and the
2	generator was able to detect it, start up and begin to
3	generate power that is sufficient to supply the load, that
4	would take about 10 seconds. And so a sag is typically
5	measured in much shorter time frames than that, so the
6	generator can't react typically.
7	Q. Were you here for Mr. Burke's testimony
8	A. Yes, I was.
9	Q or are you familiar with it?
10	A. Yes, I was.
11	Q. I believe his estimates on the cost of
12	equipment that Zoltek would need to install to avoid some of
13	these problems was in excess of \$50 million. Would you
14	agree with that?
15	A. It depends how you wanted to take that
16	approach. And I think a lot of that would come out of the
17	results of an investigation. If you wanted to back up the
18	entire facility, yes, those those magnitudes and numbers
19	would be correct.
20	What's often done in facilities is to look
21	closely at the equipment that's typically it's not
22	everything that has a problem on a production line. And
23	many times it can be one small piece of a piece of
24	equipment, kind of similar to the weakest link in a chain
25	that people talk about.

1	So if you take a large piece of equipment,
2	which Zoltek's equipment is that, it's made up of many
3	components. And its sensitivity is ultimately governed by
4	the most sensitive piece of equipment that's critical in the
5	operation of this huge machine.
6	So you can take an approach of investigating
7	that piece of equipment to determine what is really the
8	sensitive piece within that and then mitigating that
9	sensitivity issue for that piece of equipment or that
10	component of the equipment.
11	And then maybe you fixed the problem, maybe
12	you've lessened the problem, maybe you've encountered
13	another problem. So you look at it that way a lot of times.
14	If you don't want to take that approach or you determine
15	there are so many pieces that that's impractical, then you
16	can look at a whole facility approach. Typically, a
17	recommendation that comes down the road because of the cost.
18	Q. And the 50 million would be a whole facility
19	approach?
20	A. That is correct.
21	Q. Okay. Do you know if Zoltek has analyzed
22	their equipment to find that weakest link?
23	A. I would expect they have not.
24	Q. Is Ameren in a position were they permitted
25	into the plant to analyze their equipment to determine that?
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1	Α.	It's possible. It depends. It's not always
2	determinant.	It also depends on, as we've spoken about
3	well, I haven	't, but other people have through us, the
4	cooperation 1	evel.
5		To get to those level of details and
6	understanding	of equipment, there has to be a true
7	partnership b	etween the person conducting the investigation
8	and the peopl	e in the facility. So if you could get there,
9	you might hav	e a chance at it. I mean, it's not it's
LO	Q.	You might or might not?
L1	Α.	Right. It's not predetermined. I mean, you
L2	don't know wh	at you're going to find until you look for it
L3	with any kind	of an investigation. I kind of term it in my
L4	testimony as	detective work. And you really have to look at
L5	everything an	d figure out what the critical issues are and
L6	go from there	. So you don't know what you're going to find.
L7	It's hard to	answer that.
L8		MS. SHEMWELL: Thank you, sir.
L9		JUDGE THOMPSON: Thank you, Ms. Shemwell.
20		Mr. May?
21		MR. MAY: Thank you, Judge.
22	CROSS-EXAMINA	TION BY MR. MAY:
23	Q.	Good afternoon, Mr. Wakeman.
24	Α.	Good afternoon.

Q. With respect to your testimony, Exhibit

25

1	No	14	who	prepared	VOUL	testimon	72
т —	MO.	тт,	WIIO	prepared	your	CESCIIIOII	y:

- 2 A. I did.
- 3 Q. Okay. When you say you prepared it, were the
- 4 questions posed to you or did you create the questions as
- 5 well as the answers?
- 6 A. It was a combination of that with discussions
- 7 with our lawyer on questions that were given to me
- 8 essentially. Not verbatim, but concepts of questions and
- 9 then I provided the answers to those.
- 10 Q. Okay. Now, with respect to the correction
- from 1995 to '97, that was just simply a mistake on your
- 12 part?
- 13 A. That is correct.
- Q. But you clearly remembered the events of 1997
- is what you're saying?
- A. Absolutely.
- 17 Q. Okay. And with respect to this change in your
- 18 question and answer on page 8 about investigation and I
- 19 believe you wanted it changed to monitoring --
- 20 A. Yes.
- 21 Q. -- correct?
- 22 At what point did you realize that you'd used
- 23 what you term an inaccurate phrase or term?
- A. Well, as I mentioned, as we went through the
- 25 proceedings here, I saw a lot of mixture of the word

1 monitoring and investig	gation.
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- 2 And I want to make sure I'm -- it's clear on
- 3 what was performed in 2000 as opposed to what a power
- 4 quality investigation is. And I think it's -- was important
- 5 when I read through it, though I wasn't maybe careful enough
- 6 on the terms I used either -- because it was clear to me.
- 7 And so as I listened to the dialogue today, I thought it was
- 8 best to make sure that that's clear.
- 9 Q. Okay. Now, with respect to the equipment at
- Zoltek, you've never examined that equipment, have you?
- 11 A. Well, I think we discussed this in the
- 12 deposition on the terminology "examined." What would you
- mean by that exactly?
- 14 Q. Well, you've been in the plant at Zoltek?
- 15 A. Yes, I have.
- Q. You've observed the equipment. Correct?
- 17 A. Yes, I have.
- 18 Q. By that I'm saying you've looked at it as you
- 19 walked by it?
- 20 A. Looked at.
- 21 Q. Have you looked at the diagrams for the
- 22 equipment?
- A. No, I have not.
- Q. Have you spoken with anyone from the
- 25 manufacturer of the equipment?

1	Α.	No.	Huh-uh.

- 2 Q. Okay. And you've never obviously taken the
- 3 equipment apart?
- A. Not to any great degree except for to install
- 5 the monitors. I was there when we installed the monitors in
- 6 2000.
- 7 Q. But that wouldn't entail what we call a
- 8 breaking down of the equipment?
- 9 A. No.
- 10 Q. Okay. With respect to the back-up generation
- 11 that was referenced on -- I believe it's page 7 of your
- 12 testimony?
- 13 A. Uh-huh.
- 14 Q. You talk about back-up generation. You don't
- 15 know though what type back-up generation Zoltek would
- 16 require?
- 17 A. Sure I would, yeah.
- 18 Q. Okay.
- 19 A. What do you mean what type? There's not that
- 20 many types of back-up generation. There a few prime movers
- 21 that occur which is, you know, the type of device that
- 22 drives the generator, a diesel engine or gas-fired, things
- 23 like that.
- Q. Are there different sizes?
- 25 A. There are different sizes, yeah.

1	Q.	Would you know what size?
2	Α.	Off the top of my head, no. It wouldn't be
3	very difficult	to determine, but I don't know off the top of
4	my head.	
5	Q.	I assume the larger you get with a back-up
6	generation sys	tem in terms of the size, the more expensive
7	it becomes?	
8	Α.	Yes. It's not linear, but yes, it's more
9	expensive.	
10	Q.	And then on page 8 in regard to the 2000, as
11	you've now ter	med it, monitoring, I believe you've made a
12	conclusion tha	t Zoltek's equipment was over-sensitive?
13	Α.	That's what I believe, yes.
14	Q.	Now, were the results of your 2000 monitoring
15	relayed to the	folks at Zoltek?
16	Α.	Yes.
17	Q.	They were?
18	Α.	Yes.
19	Q.	Were there any suggestions provided to them?
20	Α.	No.
21	Q.	Okay.
22	Α.	I don't believe so, no.
23	Q.	Was there a reason for that?
24	Α.	We were ordered to go in and do monitoring to

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investigate what happened -- or excuse  $\operatorname{me}$  -- to  $\operatorname{monitor}$ 

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- We weren't really in a position -- and I
- 3 wouldn't want to make a specific recommendation to a
- 4 customer based on one month of just monitoring. If you want
- 5 me to make a recommendation, I need to do a power quality
- 6 investigation because I don't want to waste anybody's money.
- 7 Q. Were you -- and I mean you and the company.
- 8 Were you in the plant for the purpose of litigation then?
- 9 A. I'm not sure what that question means, to be
- 10 honest. If you could rephrase it, please.
- 11 Q. Obviously you were in there as a result of a
- 12 court order you're saying. Correct?
- 13 A. That's my understanding, yes.
- 14 Q. Was it your intent to determine what Zoltek's
- 15 problem was?
- 16 A. I would have liked to have had that
- 17 opportunity, although in that case when you're told to go in
- 18 and monitor for one month --
- 19 Q. All right.
- 20 A. -- go to the doctor and tell them you got five
- 21 minutes to figure out what's wrong with me. Well, is he
- going to make it? I don't know.
- 23 Q. With respect to the one-month monitoring
- 24 you're discussing, what was the purpose of the monitoring?
- 25 Was it to find out what Zoltek's problem was and provide

- 1 them a solution?
- 2 A. It was -- no. It was in an attempt to gain
- data on what was going on. And we did gain some data.
- 4 Q. And with respect to that data, was the effort
- 5 to gain it for the purpose of trying to solve Zoltek's
- 6 problem or --
- 7 A. If you would have asked me beforehand or even
- 8 now I'd say no. But if you would have asked people that
- 9 might have been trying to get that to happen, they might
- 10 have thought it was.
- But the reality of it is it's not a power
- 12 quality investigation. And so if you had asked me before I
- did it is it likely you're going to come out with a solution
- 14 for this customer, I'd say it's possible, but probably
- 15 unlikely.
- 16 Q. Let's go now to page 6 of your testimony,
- 17 please.
- 18 A. Okay.
- 19 Q. Specifically we'll start with line 9. The
- 20 words there, They list things like -- you see that sentence?
- 21 A. Yes.
- 22 Q. They list things like time, date and I suppose
- the level from blips to time durations?
- A. Uh-huh.
- 25 Q. This is not sufficient information to

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- 2 A. That's correct.
- 3 Q. Okay. I'm going to continue on. It does not
- 4 list what they saw, what they experienced, what equipment,
- 5 if any, was affected and what was the effect. In my
- 6 opinion, some of these may have been interruptions, some may
- 7 have been voltage sags and some may not have been electrical
- 8 events at all.
- 9 Is that your testimony there?
- 10 A. Yes, it is.
- 11 Q. So are you saying then that the information
- 12 was insufficient?
- 13 A. Yes. To draw conclusions, absolutely.
- 14 Q. Okay. Then, however, do you not draw a
- conclusion on lines 12 through 14 as to what was going on
- with the interruptions?
- 17 A. What I'm using is a fairly extensive
- 18 experience base to know what customers report typically and
- 19 what those problems could be. So if you look at all the
- 20 cases of what causes equipment misoperation or the
- 21 perception of equipment misoperation, those are most likely
- 22 what it's going to be, interruptions, sags and things that
- 23 aren't electrical at all. So it's --
- Q. So with respect to lines 12 through 14, you're
- 25 saying that's based on your experience?

1	A.	Well,	it	clearly	says	on	line	12	in	my

- 2 opinion. It's my opinion, so my opinion --
- Q. I understand that. I'm asking you now, sir,
- 4 for the basis of your opinion.
- 5 A. My opinion is based on my experience and my
- 6 training, absolutely.
- 7 Q. So it was not anything that you saw with
- 8 respect to the monitoring done at Zoltek?
- 9 A. No. Huh-uh.
- 10 Q. Now, look at page 8. I don't mean to jump
- 11 around so much on you.
- 12 A. That's okay.
- 13 Q. Lines 8 and 9.
- 14 A. Okay.
- 15 Q. And we're talking about the 2000 monitoring.
- 16 Correct?
- 17 A. That's correct, yeah.
- 18 Q. The results from that. You say on line 8,
- 19 Looking at the characteristics of the sags that caused the
- 20 Zoltek shut-downs leads me to believe that the Zoltek
- 21 equipment is overly sensitive.
- You see that statement there?
- 23 A. Yes, I do.
- Q. What is it about the characteristic of a sag?
- What does that mean?

1	A. Characteristics or excuse me sags are
2	characterized typically by two ways and sometimes a third
3	way. They are characterized by their magnitude, the
4	duration, how long it lasts so how big it is, how long it
5	lasts, and sometimes on the point on wave that they actually
6	occur, but that's less used.
7	So what I was talking about here was looking
8	at characteristics, which we had the magnitude of the sag,
9	that's the variation in power, and how long it lasted. I
10	base my opinion on that.
11	Q. And there were some sags, isn't it true, that,
12	in fact, the Zoltek equipment did not shut down?
13	A. Yes. That's right. Yeah. And that would
14	depend heavily on what the equipment's doing at the time. I
15	mean, just because, you know, if if the equipment's not
16	in a certain operating mode or so you'll see variations
17	in equipment. The same sag would cause different results
18	from the same piece of equipment based on what that
19	equipment's doing, where in its cycle it is. That's how you
20	can maybe explain that.
21	Q. Again, just to be clear, you're basing your
22	characterization of the Zoltek equipment being overly
23	sensitive solely on the characteristics of the sags that you
24	saw in the 2000 monitoring?
25	A. That is correct.

1	Q. Okay. You're not judging their equipment
2	against any other particular equipment or any standards that
3	have been issued?
4	A. I'm basing it on well, there's some
5	standards out there on voltage sag characteristics. And
6	there's I think some of our experts have testified about
7	those in particular, the I-tech curve and there's some
8	SME-curves or semi-conductor manufacturing equipment.
9	And there's actually some new standards that
10	are trying to be generated to help characterize these. So
11	not really specifically against any standard, but based on
12	my experience, based on what electrical events are likely to
13	be imposed on equipment.
14	Q. Okay. Then also when you were in the plant,
15	did you find the people at the plant to be cooperative?
16	A. The ones I had access to, absolutely.
17	MR. MAY: Okay. Thank you.
18	Thank you, your Honor.
19	JUDGE THOMPSON: Thank you, Mr. May.
20	QUESTIONS BY JUDGE THOMPSON:
21	Q. Mr. Wakeman, your job is to do the
22	investigations?
23	A. Yes, sir.
24	Q. And to determine what the cause of the power

difficulty is, if possible?

25

1	A. That's correct. I really term it as equipmen
2	misoperation issues, because
3	Q. Okay. In your professional opinion, was an
4	adequate investigation ever conducted at Zoltek that would
5	permit the determination of what exactly the problem was?
6	A. Not to my knowledge, no, sir.
7	Q. And is it your opinion or your knowledge that
8	the reason is because of a lack of cooperation on the part
9	of Zoltek?
10	A. That's the difficulty I encountered, yes, sir
11	JUDGE THOMPSON: I have no further questions
12	for you.
13	Recross based on questions from the Bench?
14	MS. SHEMWELL: No thank you, your Honor.
15	MR. MAY: None, your Honor.
16	JUDGE THOMPSON: Redirect?
17	MR. PETERS: Thank you, your Honor.
18	REDIRECT EXAMINATION BY MR. PETERS:
19	Q. Mr. Wakeman, you were just testifying about
20	the experience you had with Zoltek was perhaps
21	uncooperative. That was your experience?
22	A. Yes, sir.
23	Q. Do you have the letters that you wrote
24	regarding your '97 what period of time did you find
25	Zoltek to be uncooperative?

1	A. In let's see. It says here in April of '97
2	we went out and had a meeting with Zoltek and Mr. Spahn was
3	involved in that meeting. And we basically offered my
4	services as free of charge to come in and figure out what's
5	going on, you know.
6	And really the way that's posed, and I do this
7	all the time so it's very consistent in that regard, is that
8	I will come in and investigate to figure out what's going
9	on. And to me at that point it really doesn't matter
10	it's important to even keep that in mind that it doesn't
11	matter if it's their problem, our problem, whose problem it
12	is. My job is to figure out what is the problem.
13	So we offer these services to you to come in
14	and get this situation under control. Let's understand it,
15	let's gather the data and move off the just finger pointing
16	kind of situation, let's get some real information.
17	That was in a meeting and they said they'd get
18	back to me in a couple days and they didn't. So I began to
19	call and call and could never even reach Mr. Spahn
20	for several months literally. I couldn't even begin to tell
21	you how many times I called, but it's a big number.
22	And, finally, at some point I sent him this
23	letter saying, I've been trying to get ahold of you since
24	April and you're not responding and but I I take that
25	back. I actually did talk to him one time and he said,

1	Well.	we	want.	more	information	about.	what.	а	power	quality	v

- 2 investigation is.
- 3 So I said, okay, well, I've never been asked
- for that, but I'll write a document. So attached to this
- 5 letter is the document I sent I guess in June that details
- 6 what a power quality investigation is.
- 7 Q. What's the date of the letter? What's the
- 8 exhibit number?
- 9 A. Exhibit No. 23, and the letter is dated
- June 4th, 1997. So from April 8th to June 4th I got this
- 11 far. I got a letter. I sent him another letter saying
- here's what I do when I come in here.
- 13 And then still didn't hear anything back. And
- 14 finally in October I sent him this letter saying, you know,
- haven't heard from you, I'm basically -- to be honest, I
- 16 don't want to continue to call for no reason, so if you want
- us to do this, let's do it and I'd like to hear from you.
- 18 And that's what the letter says.
- 19 Q. Okay.
- 20 A. And I never heard anything.
- 21 Q. Now, I believe you have testified consistent,
- 22 I think, with Mr. Hackman that the monitoring you did was
- 23 not extensive enough to come up with a solution for the
- things that Zoltek was complaining about; is that correct?
- 25 A. No. Yeah. You would be -- you'd be making a

1	mistake	to	make	recommendations	for	а	customer	t.o	spend

- 2 money based on what we did.
- 3 Q. And when I say the things that Zoltek's
- 4 complaining about, I'm including the list of 277 service
- 5 quality incidents.
- 6 A. Absolutely.
- 7 Q. And you're familiar with that list?
- 8 A. Yes, I am.
- 9 Q. Okay. Just to put this in context though,
- when was the first time that you saw the list of 277
- 11 incidents?
- 12 A. I saw it sometime around, I'd say, '99, 2000,
- 13 right in that time frame.
- Q. Okay. In the '96, '97 time frame or any time
- did they come and say, here's a list of how many service
- 16 quality incidents we've --
- 17 A. No. I never saw that.
- 18 Q. Did anyone from Zoltek ever say to you that UE
- 19 needs to do -- fill in the blank, do a particular task or
- 20 install a piece of equipment or take a particular action
- 21 which will solve our problems?
- 22 A. No, sir.
- 23 Q. Did Zoltek give AmerenUE any suggestions as to
- 24 possible ways to solve or possible ways to find solutions to
- 25 their problems?

1	Α.	No.	sir.

- Q. And I think your testimony -- I'll just stop
- 3 here. Your testimony has been pretty clear that you feel
- 4 that the full power quality investigation would need to be
- 5 completed to solve their problems or determine if their
- 6 problems could be served?
- 7 A. Right. I think that would be the next step or
- 8 a step.
- 9 MR. PETERS: Okay. Nothing further, your
- 10 Honor.
- JUDGE THOMPSON: Thank you, Mr. Peters.
- 12 You may step down, Mr. Wakeman. Thank you
- 13 very much for your testimony today.
- 14 THE WITNESS: Thank you.
- 15 JUDGE THOMPSON: Okay. Exhibit No. 1 has been
- offered and received, No. 2, No. 3, No. 4, No. 5, No. 6,
- 17 No. 7, No. 8, No. 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19,
- 18 all offered and received. Exhibit No. 20 was received as an
- offer of proof after an objection was sustained. 21,
- 20 offered and received; 22, objection sustained, received as
- an offer of proof; 23, offered and received; 24, that's the
- 22 Commission's late-filed exhibit.
- 23 Mr. Vitale, have you had an opportunity to
- 24 review the exhibit?
- MR. VITALE: Yes, I have, your Honor.

1	JUDGE THOMPSON: And do you have an objection
2	to the Commission's receipt of it?
3	MR. VITALE: I guess at this point under the
4	circumstances in which it's been presented I do. I talked
5	to Mr. May during a break and I guess what I would ask is if
6	I can just understand and be pointed to the underlying
7	documents there have been a lot of documents in the
8	case I likely will then have no objection.
9	I may want to put those in to back it up, I
10	may not, but getting it as I did yesterday afternoon and not
11	having had a chance to find the source document, I suspect I
12	will not, but that's all I want to know is see that.
13	Whereas, I've understood how Mr. Moran went through it and I
14	was able to question him, I just don't have any information
15	about this document.
16	JUDGE THOMPSON: I understand perfectly well.
17	What we'll do is we will allow you to file your written
18	objection, if you do have one. And we'll go ahead and set a
19	date when you need to do that. Okay?
20	MR. MAY: Your Honor, what I'd like to propose
21	is that this week or early next week Mr. Vitale and I will
22	speak and I'll try to point him in the direction or provide
23	copies or whatever needs to be done.
24	JUDGE THOMPSON: Very well.
25	MR. VITALE: I think that will resolve it,
	1199

1	Judge.
2	MR. MAY: I would assume that would resolve it
3	and them maybe we could just let the Judge know.
4	MR. VITALE: We'll let your Honor know that.
5	JUDGE THOMPSON: And you'll let me know next
6	week?
7	MR. MAY: Yes, sir.
8	JUDGE THOMPSON: We can just do that by
9	how?
10	MR. VITALE: I can write a letter
11	JUDGE THOMPSON: Letter, mail, phone call,
12	conference call?
13	MR. VITALE: I'll write a letter, Judge.
14	MR. MAY: Just send an e-mail message either
15	way to him. That's fine.
16	JUDGE THOMPSON: Okay. So we'll let me know
17	next week. Very good.
18	Exhibit 25 offered and received. 26, 27, 28,
19	29, all offered and received. Exhibit 30 neither offered
20	nor received, 31 offered and received. 32, 33, 34, 35, 36,
21	37, all offered and received. 38 received only as an offer

25 MR. VITALE: I have some additional exhibits
1200

of proof. And Exhibit No. 30, I should mention was a

deposition and we've already been through that with a

22

23

24

previous exhibit.

1	to offer, your Honor, at this time.
2	JUDGE THOMPSON: Okay.
3	MR. VITALE: We have some deposition
4	designations from Mr. Rumy's deposition as the president of
5	Zoltek. It's admissions against interest.
6	JUDGE THOMPSON: Okay.
7	MR. VITALE: I guess this would be 39.
8	JUDGE THOMPSON: Very well. This is Exhibit
9	No. 39, admissions against interest by Mr. Rumy. Right?
10	MR. VITALE: These are the designations of the
11	deposition, and then I've got the deposition transcripts tat
12	go with it. We've got two volumes of depositions itself.
13	JUDGE THOMPSON: Let's go ahead and mark
14	Volume 1 as Exhibit 40, Volume 2 as 41.
15	MR. VITALE: 39 is the designation, 40 is
16	Volume 1, and 41 is Volume 2?
17	JUDGE THOMPSON: That is correct.
18	MR. VITALE: And we'd offer those at this
19	time, your Honor.
20	JUDGE THOMPSON: If you'll just hang on a
21	moment while I get these marked.
22	(EXHIBIT NOS. 39, 40 AND 41 WERE MARKED FOR
23	IDENTIFICATION.)

objections to the receipt of Exhibit No. 39?

JUDGE THOMPSON: Okay. Do I hear any

24

25

1	MR. MAY: Yes, your Honor.
2	JUDGE THOMPSON: And what is your objection?
3	MR. MAY: Well, your Honor, if I understand
4	this I was just given this myself but if I understand
5	this, Mr. Vitale or I should say the Respondent's
6	alleging that these provisions of Mr. Rumy's deposition
7	impeach or somehow are used against his interest.
8	I would offer that there was cross-examination
9	of Mr. Rumy, ample opportunity to obviously impeach him via
10	his deposition testimony. I know, Judge, that there were
11	some of those exhibits were the depositions of certain other
12	parties offered in evidence. I had stated a similar
13	objection to that. I would restate that objection with
14	respect to 40 and 41 as well as 39.
15	JUDGE THOMPSON: What was that objection
16	again?
17	MR. MAY: Your Honor, I think that the
18	deposition itself if it's used for the purpose of
19	impeachment, the record will reflect if there has been any
20	impeachment.
21	JUDGE THOMPSON: With respect to depositions,
22	the deposition of a main party, of course, comes in and can
23	be used for any purpose, whether or not the party's
24	available to testify.
25	When a party is a corporation and where the
	1202

2	designate a representative, in other words, to speak as the
3	corporation, as the party, then that deposition also comes
4	in for any purpose.
5	Now, the question that remains here is whether
6	or not Mr. Rumy was deposed as the representative of the
7	corporation or not. I don't know the answer to that and I
8	will allow parties to speak to it.
9	MR. VITALE: I will admit, your Honor, he was
10	not. But if I may say so, the rule goes on to say that an
11	office of the corporation the deposition of an officer of
12	a corporation can also be used for any purpose. So
13	JUDGE THOMPSON: You are correct.
14	MR. VITALE: while it's not being offered
15	as impeachment, it's being offered as substantive testimony
16	from Mr. Zoltek and not as impeachment the way the other
17	depositions were used. This is substantive testimony.
18	That's why we're offering it, your Honor.
19	MR. MAY: I would say that obviously Mr. Rumy
20	when he's testifying if, in fact, he's testifying in a
21	deposition in that capacity or testifying live here on
22	cross-examination, there was opportunity by Mr. Vitale to
23	say, Look at page 4, line 19, Mr. Rumy
24	JUDGE THOMPSON: That's true. But this is a
25	different use. And I believe that Mr. Vitale has correctly
	1203

notice of deposition has requested the corporation to

1 recalled the rule. Therefore, I'm going to overrule	the
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- 2 objection. I'm going to receive Exhibit No. 39 into the
- 3 record.
- 4 And I assume you have the same objection with
- 5 respect to 40 and 41?
- 6 MR. MAY: Yes, your Honor.
- 7 JUDGE THOMPSON: I'm going to overrule those
- 8 as well.
- 9 MS. SHEMWELL: Your Honor, may I ask for
- 10 clarification?
- JUDGE THOMPSON: You may.
- 12 MS. SHEMWELL: Thank you. What is the use for
- which these are being offered?
- 14 JUDGE THOMPSON: That the deposition of the
- officer of the corporation is admissible for any purpose,
- 16 just as that of a named party.
- MS. SHEMWELL: Thank you.
- 18 JUDGE THOMPSON: In other words, if you're
- 19 suing me, my deposition comes in for any purpose, whether
- 20 I'm available, unavailable, testify, don't testify. It just
- 21 comes in. Okay? Therefore, I will admit those three
- 22 exhibits over the objection.
- 23 (EXHIBIT NOS. 39, 40 AND 41 WERE RECEIVED INTO
- 24 EVIDENCE.)
- JUDGE THOMPSON: Now, there was one additional

1	issue
2	MR. VITALE: Just so the record is clear,
3	Judge, we're only offering the designated portions of the
4	latter two exhibits, not the entire depositions.
5	JUDGE THOMPSON: Thank you for making that
6	clear.
7	MR. MAY: Your Honor, just for the record
8	to preserve the record, that I think it really the substance
9	of my deposition. I understand
10	JUDGE THOMPSON: Substance of your objection?
11	MR. MAY: Of my objection. With respect to
12	the depositions being entered your comments that they come
13	in for the purpose of whatever purpose, I understand that.
14	But this designation to say we're going to pick out pages
15	of Mr. Rumy's deposition and use them against the
16	corporation, again, he testified live
17	JUDGE THOMPSON: That's true, Mr. May. And
18	normally and I should point this out to you, we're doing
19	kind of a shortcut procedure here.
20	If I were a circuit judge, and thank God I'm
21	not, then Mr. Vitale and one of his assistants would
22	essentially read the designated portions and they would be
23	read into the record. But since I'm an administrative
24	hearing officer and I can do things a little bit differently
25	than a circuit judge, we're just going to have this list of

1	portions, pages and lines and the depositions and we're
2	going to accept them rather than have them read.
3	Now, it is very frequently an objection made
4	in circumstances like this that to take just these
5	designated portions is to take them out of context and to
6	understand it all, we've got to have the whole deposition.
7	And I have very, very frequently heard that
8	objection and that request. And if you want to make it at
9	this time, of course I'll grant, because it comes in for any
LO	purpose, no matter who offers it.
L1	MR. MAY: Well, without waiving my previous
L2	objections, your Honor, I would state that obviously these
L3	need to be taken in the appropriate context. And just for
L4	the record, your Honor, I'm saying that
L5	JUDGE THOMPSON: I understand.
L6	MR. MAY: I don't have I'm not objecting
L7	to the idea of writing it on paper versus reading it. I'm
L8	not arguing about that, trust me.
L9	JUDGE THOMPSON: I did not think you were
20	objecting on those grounds.
21	MR. MAY: What I am trying to say is that
22	especially in this process, Mr. Vitale may have already done
23	it, I don't know, but he had an opportunity to use Mr. Rumy
24	as he was sitting there before this Commission and impeach
25	him with respect to the corporation.

1	JUDGE THOMPSON: Absolutely.
2	MR. MAY: That would have provided me an
3	opportunity under those circumstances to redirect testimony.
4	Under these circumstances, I'm not provided that
5	opportunity,
6	JUDGE THOMPSON: Which may explain why he
7	chose to do it the way he did. You see what I mean? He has
8	a tactical choice what use he wants to make of that
9	deposition. And perhaps he did not want to give Mr. Rumy ar
10	opportunity to explain away these purported admissions
11	against interest and I say purported only because I
12	haven't read them so I don't know what they say. I don't
13	know if they're really against interest or not. That's for
14	the trier of fact to decide.
15	What can I say? You are still free to make
16	any motion you believe is necessary to protect the interest
17	of your client, which means you go back to your office, you
18	read the designated testimony and if you believe that
19	something has to be done, then you may make that motion.
20	All right?
21	Until the Commission has exhausted its
22	jurisdiction by rendering its decision in this case, the
23	record can be re-opened as fundamental fairness and due
24	process and those kinds of considerations require. So I
25	realize this is something of a surprise to you.

1	MR. MAY: Right.
2	JUDGE THOMPSON: I believe Mr. Vitale is
3	absolutely correct that this deposition comes in for any
4	purpose. Now, if you go home and do some research and
5	discover that's wrong, I assume you'll file an appropriate
6	motion. And if you read it and decide that something has to
7	be done to correct a misapprehension, whatever, you will
8	make the appropriate motion and I will be happy to receive
9	it. He'll get a chance to respond and the Commission will
10	rule and decide what to do.
11	And with that in mind, I suggest that perhaps
12	you withhold moving that the rest of the deposition come in
13	at this time because I think if you do that, you do waive
14	your objection.
15	MR. MAY: Well, your Honor, like I say, part
16	of it is because I'm at a loss because I was just given
17	this.
18	JUDGE THOMPSON: Absolutely. And I understand
19	that.
20	MR. MAY: I've not had an opportunity to read
21	it and research it.
22	JUDGE THOMPSON: In fairness, obviously we'll
23	entertain any motion you want to make. Okay? And we can go
24	ahead and talk now about a briefing schedule. And perhaps
25	as part of that, we'll set a date by which I want to hear
	1208

1	whatever anybody has to say about how the record has a
2	problem or it's flawed, it needs to be corrected. Okay?
3	MR. MAY: Your Honor, just for the record
4	then, I would withhold any objections in light of what you
5	just said until I've had an opportunity to review this. May
6	I put those objections in writing to you then, sir?
7	JUDGE THOMPSON: Yes, sir. File it as a
8	pleading, serve it on Mr. Vitale and Ms. Shemwell and I
9	don't know if OPC is opening their mail in this case or not
10	and we'll have it.
11	MR. MAY: Thank you.
12	JUDGE THOMPSON: Very well.
13	Now, the one last point has to do with the
14	letters that the contract expressly incorporated by
15	reference. And the reason I think that's important is
16	because the Commission has been asked to make certain
17	conclusions based on that contract. And so far it appears
18	to me that the entire contract is not before the Commission.
19	So I will ask counsel, as a homework
20	assignment, to at least advise us as to what the deal is
21	with those letters. If they exist, I'm going to ask for
22	them as a late-filed exhibit and, in fact, we'll call that
23	42. And if they don't exist or are unavailable, then I'd
24	like a pleading advising me of that point.
25	And I don't care which of you files. You can

1	both file. That contract came in twice, in fact. It came
2	in attached, I believe, to Mr. Rumy's testimony and you are
3	the proponent of a certain affect of the contract. And I
4	believe it came in as part of your case too, did it not?
5	MR. VITALE: It was cross-examination of
6	Mr. Hulse by Mr. May, I believe
7	JUDGE THOMPSON: Right. So as far as I'm
8	concerned, you both have an obligation to give the
9	Commission the entire contract. So either give me those
10	letters or tell me why you can't. Okay?
11	MR. VITALE: Yes, sir.
12	JUDGE THOMPSON: And we'll save No. 42 for
13	that.
14	Is there anything else we need to address at
15	this time? Briefing schedule.
16	MR. VITALE: Right.
17	JUDGE THOMPSON: Normally our transcripts are
18	available two weeks after the close of the hearing. We
19	don't have an operation of law date in this case; in other
20	words, we don't have some drop dead date by which we have to
21	have a decision out.
22	You guys tell me what you want to do with
23	respect to briefs. I will say Zoltek has the burden of
24	proof, so you may want to do the classic brief from Zoltek,
25	responsive brief from Union Electric, reply brief from

1	Zoltek, or you may want to use some sort of simultaneous
2	pattern, principal briefs and then reply briefs, which is
3	fairly common in Commission practice really. Whatever you
4	would rather do. Or maybe you would just like to do an oral
5	argument now.
6	MR. MAY: Your Honor, the form of it though,
7	are you looking for like findings of facts, conclusions of
8	law or do you want what do you mean by a brief? I'm just
9	not that
LO	JUDGE THOMPSON: This is not such a big record
L1	that I can't find the facts. Chapter 536 guarantees to
L2	litigants in an administrative proceeding in Missouri the
L3	opportunity to make either a final argument or to file
L4	briefs, written arguments.
L5	It also requires that the members of the
L6	Commission listen to those arguments or read those beliefs
L7	and any portions of the record that you point out in those
L8	briefs.
L9	Given that we've had a whole day of hearing
20	here with no Commissioners present, I would think that you
21	might want to avail yourself of the opportunity to direct
22	their attention to certain portions of the record.
23	I think in the general course of events that
24	each Commissioner reads every piece of paper that comes
25	before him or her. I don't know how they do it given the

2	have an opportunity here to say, Look at X, look at Y, look
3	at Z. You may want to avail yourselves of that.
4	In terms of what I expect in a brief, it's
5	really I have no expectations. It's your opportunity to
6	argue the facts and the law in order to tell me tell the
7	Commission why your side should prevail in this matter.
8	MR. VITALE: And a brief does not include the
9	proposed findings, so you're not looking for that from the
10	party?
11	JUDGE THOMPSON: I'm not going to require
12	proposed findings and conclusions in this case. If you
13	decide you want to do them, of course I will receive them.
14	I will find them useful, but I'm not going to require them.
15	Okay?
16	We have many cases where we require them.
17	Very, very large and complex cases where so much stuff is
18	filed, frankly, I want counsel to tell me what exactly they
19	think proves their point, because it's sometimes hard to
20	find.
21	In this case I think we've all been pretty
22	focused. In fact, I would compliment counsel on the
23	beautiful job you've done in trying this case and educating
24	me and the Commissioner's on power supply and this
25	particular manufacturer. And I know we're but a stepping

volume of paper involved, but they do. Nonetheless, you

1	stone on the way back to circuit court, so			
2	MR. MAY: Your Honor, we haven't really talked			
3	about this, but I guess I could write a brief and then you			
4	could respond and I could reply.			
5	JUDGE THOMPSON: You don't even have to do			
6	briefs if you don't want to. What I'm saying is the statute			
7	requires I give you the opportunity.			
8	MR. VITALE: No, I would like to.			
9	JUDGE THOMPSON: If don't want to file			
10	anything, that's fine with me.			
11	MR. MAY: No. That's not a problem.			
12	JUDGE THOMPSON: Maybe you're comfortable			
13	giving Mr. Vitale the last word. Little joke, little joke			
14	here. It's been a long day.			
15	MS. SHEMWELL: Some found it funnier than			
16	others.			
17	MR. MAY: Yes.			
18	JUDGE THOMPSON: I seem to lose my ability to			
19	be funny at the end of a hearing. I don't know why. You			
20	guys are just tired of looking at me by now, I'm sure.			
21	Do you have any idea for schedule how you want			
22	to do it?			
23	MS. SHEMWELL: 30 days, 30 days, 20 days.			
24	MR. VITALE: From the transcript?			
25	MR. MAY: From the date of the transcript,			
	1213			

_	30
2	MR. VITALE: 30, 30, 20.
3	MR. MAY: That will be fine.
4	JUDGE THOMPSON: 30, 30, 20. So I will do my
5	best to remember to do a notice for an order telling you
6	we're going to do 30, 30, 20.
7	Is there anything further at this time?
8	MR. VITALE: Just one moment, your Honor. Let
9	me see how 30, 30, 20 plays out.
10	MR. MAY: While he's looking, Judge, you said
11	you'll send us an order telling us the briefing schedule?
12	JUDGE THOMPSON: I will do my very best to
13	remember to do that. It's in the transcript though so if I
14	forget, it's in there. I have a CLE tomorrow that
15	MR. PETERS: Giving or taking?
16	JUDGE THOMPSON: No. I'll be taking it and I
17	have to leave at about 4:00 in the morning to get there, so
18	my mind may be some kind of confused.
19	MS. SHEMWELL: It's a good thing we finished
20	today.
21	JUDGE THOMPSON: If we hadn't, I would have
22	gone the following day. This is a Kansas City, St. Louis,
23	you take your choice kind of thing.
24	MR. MAY: Judge, this is, I guess, a stupid
25	question. We talk 30, 30, 20 from the date of the
	1214

30 --

1	transcript. Is that when we receive it, when it's sent out?
2	JUDGE THOMPSON: There will be a filing date.
3	The transcript is provided to the Commission by the reporter
4	and it is actually filed.
5	MR. MAY: So from that date?
6	JUDGE THOMPSON: From the filing date. I have
7	no idea what that represents in terms of how soon you'll get
8	it. And you can talk to the reporter and make whatever
9	arrangements you want to in terms of how fast you want to
10	get your copy.
11	MR. MAY: Thank you.
12	JUDGE THOMPSON: Anything else?
13	MR. VITALE: I don't believe so
14	MS. SHEMWELL: No, thank you, your Honor.
15	MR. MAY: Thank you.
16	JUDGE THOMPSON: Thank you. You all did an
17	excellent job trying this case. I greatly enjoyed it. We
18	are adjourned.
19	(HEARING ADJOURNED.)
20	
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22	
23	
24	
25	

1	INDEX	
2	UNION ELECTRIC d/b/a AMERENUE'S EVIDENCE:	
3	WILLIAM J. CARR Direct Examination by Mr. Vitale	972
4	Cross-Examination by Mr. May Cross-Examination by Ms. Shemwell	974 1001
5	Questions by Judge Thompson Recross-Examination by Mr. May	1003 1009
6	Redirect Examination by Mr. Vitale Further Questions by Judge Thompson	1020 1025
7	JAMES B. HULSE	
8	Direct Examination by Mr. Vitale Cross-Examination by Ms. Shemwell	1027 1030
9	Cross-Examination by Mr. May Questions by Judge Thompson	1036 1068
10	Recross-Examination by Mr. May Redirect Examination by Mr. Vitale	1086 1093
11	BARTHOLOMEW P. ANGELI	
12	Direct Examination by Mr. Peters Cross-Examination by Ms. Shemwell	1098 1099
13	Cross-Examination by Mr. May Questions by Judge Thompson	1104 1107
14	Recross-Examination by Mr. May Redirect Examination by Mr. Peters	1116 1119
15	JEFFREY V. HACKMAN	
16	Direct Examination by Mr. Peters Cross-Examination by Ms. Shemwell	1132 1138
17	Cross-Examination by Mr. May Questions by Judge Thompson	1141 1155
18	Redirect Examination by Mr. Peters Further Questions by Judge Thompson	1158 1172
19	DAVID N. WAKEMAN	
20	Direct Examination by Mr. Peters Cross-Examination by Ms. Shemwell	1176 1180
21	Cross-Examination by Mr. May Questions by Judge Thompson	1183 1193
22	Redirect Examination by Mr. Peters	1194
23		
24		
25		

1	EXHIBITS INDEX	MADUED	DEGLD
2	Exhibit No. 11 Rebuttal Testimony of William Carr	MARKED	REC'D 974
3	Exhibit No. 12		
4	Rebuttal Testimony of Bartholomew Angeli		1099
5	Exhibit No. 13 Rebuttal Testimony of Jeffrey Hackman		1138
6	Exhibit No. 14		
7	Rebuttal Testimony of David Wakeman		1180
8	Exhibit No. 15 Rebuttal Testimony of James Hulse		1029
9	_		
10	Exhibit No. 31 Affidavit of Zsolt Rumy	971	971
11	Exhibit No. 32 Letter dated 5/27/94 from Mr. Carr to Mr. Rumy	988	994
12	-1.00		
13	Exhibit No. 33 Letter dated 5/9/94 from Mr. Carr to Mr. Rumy	993	999
14	Exhibit No. 34 Agreement dated 10/18/88 between University of		
15	Missouri and Union Electric	999	1025
16	Exhibit No. 35 Supplemental Rebuttal Testimony of James Hulse	1030	1030
17			
18	Exhibit No. 36 Letter dated $8/10/93$ from Mr. Hulse to Mr. Rumy	1047	1049
19	Exhibit No. 37 Memo to file	1059	1134
20			
21	Exhibit No. 38 Supplemental Rebuttal Testimony of Jeffrey Hackman	1134	1138
22	ocilicy machinan	TT34	1130
23	Exhibit No. 39 Admission against interests	1201	1204
24	Exhibit No. 40 Volume 1 deposition transcript	1201	1204
25	volume I deposition transcript	1201	1201

1	EXHIBITS INDEX (CONT'D)		
2	Exhibit No. 41 Volume 2 deposition transcript	1201	1204
3	volume 2 deposition transcript	1201	1204
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			