PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Wisconsin Public Service Corporation for its System Modernization and Reliability Project	)))	6690-CE-198

VOLUME 3

Hearing Held	Pages
May 7, 2013	1 to 123, Incl.

A P P E A R A N C E S

WISCONSIN PUBLIC SERVICE CORPORATION
by
Bradley D. Jackson
Brian Potts
Foley & Lardner LLP
150 East Gilman Street, Suite 5000
Madison, WI 53703

CITIZENS UTILITY BOARD
by
Kira E. Loehr
16 North Carroll Street, Suite 640
Madison, WI 53703

FOR THE COMMISSION:

Michael S. Varda, Assistant General Counsel
Office of General Counsel

OF THE COMMISSION STAFF:

Jim Lepinski
Michael John Jaeger
Scot Cullen
Gas and Energy Division

I N D E X

PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Wisconsin Public Service)
Corporation for its System Modernization) 6690-CE-198
and Reliability Project)

Hearing was held May 7, 2013, at 9:30 am in the Public Service Commission Building, Madison.

Presiding: ADMINISTRATIVE LAW JUDGE NEWMARK
Present: COMMISSIONER NOWAK

ALJ NEWMARK: Let's get on the record. It's docket 6690-CE-198, the application of Wisconsin Public Service Corporation for its system modification and reliability project.

So we're here for the public hearing. So we will take testimony from members of the public if there are any in attendance. Anyone wish to make a comment? No? Okay.

You just walked in. Let's go off the record.

(Discussion off the record)

ALJ NEWMARK: Let's get back on the record and begin the party session.

The parties and Commission staff should have

received the prehearing witness and exhibit list. So there has been some changes. We will need to make some changes to that. Now, there is sur-surrebuttal that's not reflected on there and errata and Mr. Peterson's exhibit. Is that right?

MR. POTTS: Um-hum.

ALJ NEWMARK: So with those changes, we will put those in the document, but besides that, is everything you see on the list accurate? Do we need to make some corrections?

MR. VARDA: I have a question, your Honor, about the treatment of the filings that were denoted as unacceptable. They still appeared in the last list. They were corrected, but it would seem to me when you create the formal list you want to excise the unacceptable filing exhibit so that the Commissioners if they choose to look through ERF do not pick an inappropriate exhibit.

ALJ NEWMARK: Okay. That's correct. Let's see. We can go off the record.

(Discussion off the record)

ALJ NEWMARK: Let's get back on the record. We made corrections to the witness and exhibit list, in particular, the new identified documents that are in the application that's reflected in the corrected exhibit of

Mr. Peterson. With that, are there any other corrections to the list? No? All those documents will go into the record, and I did notice we have sur-surrebuttal. So before we put those in the record, any objection to those?

Okay. All right. So they will be in the record as well, and I was just wondering -- let's just go off the record for a minute.

(Discussion off the record)

ALJ NEWMARK: We can just call the first Pub Service witness.

MR. JACKSON: Call Mr. Peterson.

ALJ NEWMARK: All right.

VERNON PETERSON

being first duly sworn, testified as follows:

WITNESS: I do.

ALJ NEWMARK: Have a seat.

MR. JACKSON: So all his materials are already in the record?

ALJ NEWMARK: That's right.

EXAMINATION by MR. JACKSON

Q Thank you.

Mr. Peterson, did you have any clarifications you would like to make with respect to your prefiled testimony?

A Yes, I do.

Q What would that be?

A In my testimony, there is a point of confusion actually in regard to maintenance, annual maintenance cost.

Q And you're referring to your direct --

A Yes.

Q -- prefiled? Would you direct us where that is?

Page 5?

A This is on page 6, line 4.

Q And what's your clarification?

A I think when folks read that, essentially that paragraph, there is an assumption there that we have 500,000 dollars of annual O&M savings that's directly related to our savings from less tree trimming and less outage maintenance. The next sentence talks about less pole replacements for the life of the project, and folks get the idea that 537,000 dollars is a combination of both of those O&M cost and reduced pole replacement. Actually, the pole replacement is 537,000. Annual savings is 1,037,000 dollars per year.

Q Any other clarifications or corrections to the prefiled testimony?

A No.

MR. JACKSON: The witness is available for cross-examination.

ALJ NEWMARK: Okay. Cross.

EXAMINATION by MS. LOEHR

Q Good morning, Mr. Peterson. Do you have your rebuttal testimony with you?

A Yes, I do.

Q Could you turn to rebuttal 3 -- rebuttal WPS Peterson 3, line 10 to 11?

A Sorry, page 3?

Q Yes.

A Okay.

Q Sentence there, our customers are looking for improvements in reliability today. Do you see that?

A Yes, I do.

Q Did WPS conduct a survey of its customers asking them if they're looking for improvements in reliability today?

A No, we did not.

Q What was your bases for that statement?

A What it really comes down to is reliability that our customers are experiencing right now in heavily wooded

areas. When you look at the data, of course, 25 percent of our customers in those areas are experiencing at least five outages per year on an annual basis. When you look further, 5,000 of these customers are experiencing an average at least ten outages per year, and then 160 of those are experiencing 20 outages per year. Really, we feel that's not an acceptable level. I think any one of us were to experience that level of reliability, we would be looking for some relief.

Q Those customers been calling you?

A We have had a number of complaints, absolutely.

Q What is the number?

A We have had -- I don't know the exact number. We had a number of complaints at the Public Service Commission as a result of that reliability, and we've taken some internal. I do not have a number.

Q When you were thinking of a number earlier were you thinking of complaints to the Public Service Commission?

A Yes.

Q So that number is 19 over the last six years?

A I believe that number is correct.

Q Any other bases for that statement?

A We certainly anecdotally have had a number of I guess comments from a lot of electricians dealing with customers on a regular basis. Our leaders out in those

areas, it's a very common discussion with our customers when they're face to face with them.

Q When you say common discussion, what does that mean?

A Certainly, reliability. The number of outages is one of the topics that's brought up frequently.

Q Is it brought up everyday?

A Typically, for a line crew, most of the time when they do restore power, there is some conversation. When you have those conversations, there is some discussion on reliability in those areas.

Q How long have these discussions been going on? Over years?

A It's been over a number of years. Really, really peaked in May 2010/2011 time frame when we had some dramatic storm seasons for both those years.

Q What do you mean peaked?

A If you look at the data, our SAIDI numbers for 2010/2011 there was a dramatic increase in the number of outages and the ratio of outages mainly related to the weather systems we experienced.

Q You're referring to the SAIDI spike?

A Yes.

Q Also, on rebuttal WPSC Peterson you say, we do not believe that the ten-year implementation schedule proposed by Mr. Hahn will be acceptable to our customers.

Did WPS conduct a survey of its customers asking if the ten-year implementation schedule is acceptable?

A We did not.

Q What is the bases for that statement?

A Again, very much the similar argument that again our customers we believe this reliability is not acceptable to them, and if we could take care of it in a sooner time frame, I think that's something they would definitely be interested in. I think it's something we would all be interested in if we had that level of reliability.

Q And one of your bases is the SAIDI figures just talking about that graph?

A Yes, and, again, the number of outages that these customers are experiencing.

Q And the SAIDI figures in the application go back to 2006?

A That is correct.

Q How long before then has SAIDI been higher than that of the other utilities?

A I think overall we have traditionally been higher than the other utilities. I don't have the exact information with me. Overall, yes, we have had higher SAIDI numbers than other Wisconsin utilities.

Q Overall in the history of Wisconsin Public Service Corporation?

A Yes.

Q How long is that?
A For as long as we have been providing power.
Q How long has the company been providing power?
A Over a hundred years, 150 years.
Q You also happen to have your exhibit with you?
A I do not believe I do. (Witness handed document)
Thank you.
Q And Exhibit WPS Peterson 1 is the company's application in this proceeding?
A Yes.
Q I have just handed you a figure 7 from that application. Do you recognize that?
A Yes.
Q I have a question about the last column, the total column in that figure.
A Okay.
Q And some math is going to be involved here. May need to stop.
A Okay.
Q You've got average number of outages that customers experience per year, and it starts at one and then goes through 25 and over, right?
A Correct.
Q Now, there could be a row above one that has zero, right?
A That is correct.

Q And if my math is right, that number would be 206,848 customers or 47.3 percent?
A I would agree with that, yes.
Q And that would also make the total number of customers at the bottom under the total number of customers column 437,311?
A I will take your word for it. I know it's right in that area, yes.

MS. LOEHR: Okay. That's all I have. Thanks.

ALJ NEWMARK: Commission staff.

EXAMINATION by MR. VARDA

Q Mr. Peterson, it might be helpful if you had a copy of your Exhibit 1, the application, if you don't have it.
A I do not believe I have that.
Q You do not?
A I do not. (Witness handed document)

It's figure 1?

Q No, no.
A I'm sorry.
Q Just Exhibit 1. I would like to direct you to page 5 of Exhibit 1, and you identify and describe generally the outage management system of WPS and I want -- I want you to tell me how does WPS identify the commencement of an outage on its system, by a phone call or some electrical

means?

A Actually, by phone call, first phone call for the related outage.

Q And by a phone call, we mean a phone call from a customer?

A That's correct.

Q And how would you identify the time for the end of an outage?

A That would be the time that the line crew reported that they restored power.

Q WPS lineman communicating back directly to service headquarters the line is fixed and may be placed in service and you would consider that the conclusion of the outage?

A That is correct.

Q Now, is the line put back in service immediately upon that call or is there some safety protocol that is executed before the line is actually back in service from the time you get the call from the lineman?

A The lineman to the best of their ability, they indicate the exact time the power was put back on or the lights came on for that group of customers.

Q They have at site equipment that enables them to identify service and power restored on the line at this point?

A Typically, yes. When they restore power, typically a

larger section of line then what we do is we have the meter to verify the customers are back on.

Q So turning again back to the commencement of the outage, you're dependent upon a customer call so, in turn, isn't it true that the actual commencement of an outage really depends upon when the customer discovers the outage, correct?

A That is correct.

Q You would agree with me there may be an interval of time that the customer is not present where the outage is occurring. The outage could have happened sooner that would be unknown to the customer until the return of the customer?

A That is correct.

Q Page 6 of your discussion indicated some availability of crews. Let's see where I had that. The second-to-last paragraph on page 6 where you intended to target areas that will be separated to the extent practical to avoid flooding a specific area with construction crews. How large are those crews typically?

A What we're looking at with the project we're looking at approximately 100 crews to install underground. We will spread that across various sites, probably looking somewhere in the area of 30 people in a particular site.

Q Now, you indicate 100 crews. Are you referring to the

entirety of the projected five-year project or each construction season?

A Each construction season. FTE equivalent is roughly half of that.

Q Now, turning to pages 18 to 21 of your Exhibit 1, you discuss a 2012 pilot project. Were outside contractors used on this particular project?

A Yes, they were.

Q Okay. Did your company learn anything about the responsiveness of independent contractors to directions regarding environmental protection, cleaning of equipment to avoid transfer of invasive species and the like?

A I know we did. I don't have that information myself.

Q Would another one of your company witnesses be a better person to ask?

A Sure, Rick can certainly answer that.

Q Rick Moser?

A Rick Moser, yes.

Q I would direct you to page 36 of your Exhibit 1. The last full sentence on that page, WPS is not planning to abandon any overhead facilities. Could you explain more fully what you mean by the facilities you do not intend to abandon?

A I am not really sure what that sentence actually means.

Q Well, let me ask you a situation that came to my mind as

I read that. If, for example, WPS abandons a cross-country line, say, it's a half mile.

A Yes.

Q In favor of serving the customer on a cross-country line with a new line that goes along highway rights of way.

Is it the intention of WPS to keep the cross-country route in service and not abandon it?

A I would say most cases absolutely not. We will remove those overhead facilities. I am aware of some situations where we are planning to keep facilities, overhead facilities. We're going to do some undergrounding. We're going to do some potential dual source, but in most cases single-phase lines on cross-country routes we will be removing.

Q Okay. Backing up to a higher level, your company is not planning by this project to follow on with abandonment proceedings in front of this Commission unless you come to a final and full determination a particular line is not needed at all. Is that correct?

A That is correct.

Q Page 41 of your application, and I am wondering what you mean by this. The last sentence starting on page 41 going over to the top, the statement is made, participation in the SMRP is viewed as voluntarily and therefore not anticipated that payment for private land

easements will be made nor do we anticipate any eminent domain action as a result of obtaining easements.

What precisely did you mean by the SMRP is viewed as voluntarily?

A It's really up to the customer whether they want to participate or not. If they choose not to participate, not give us an easement, then either we will not perform the undergrounding in that particular area or we will just basically move on. We wouldn't do anything. So there is no obligation. If we can't get the easements, we're not going to force ourselves on these particular customers.

Q Did you do any cost/benefit analysis to determine whether a particular customer's refusal to grant an easement may actually end up costing many other customers the value of the savings of outages?

A No, we did not, and in most cases, what we can do, an individual customer says I don't want you to -- I am not going to grant you the easement, not going to allow you to bury the facilities, we can -- if it makes sense at their property line have a riser up go overhead across their property and have a riser down.

Q In your experience, have you ever encountered the situation wherein the type of distribution construction we're looking at here have you encountered a situation

where one reluctant or recalcitrant homeowner refusing to give a right of way was really creating an expensive harm to other customers that would be benefited by the proposed line?

A I don't see that happening in this particular situation.

Q Have you experienced that anywhere else in the WPS system that you can recall?

A We certainly have individuals who refuse to grant us easements for access to the property, but in those cases typically there is no line in place. We're trying to provide service to someone else, and it causes a great deal of harm, but in this particular case, they already have the facilities there. I think there is alternate means around it.

Q Okay. Further down on page 42 under section 13.10, you identify the fact that contractors will need to identify staging areas, and it says WPS will evaluate the proposed location to ensure, in essence, no negative impacts on the environment.

To whom in WPS does the contractor make contact with to identify staging areas?

A I would defer that to Mr. Rick Moser too.

Q Now, turning to your direct testimony, Mr. Peterson, page 2, lines 11 to 15, you talk about the goal of the project. I have some related questions.

Who specifically authorized this project to proceed?

A Within Pub Service?

Q Correct.

A It was approved by the Board of Directors.

Q And could you briefly describe how much time and over what dates the need for this project was articulated within WPS and ultimately brought up to the Board for decision you just identified?

A Sure. I would say discussion started in late 2011 and ultimately a plan was forwarded -- discussed at basically my energy delivery staff and WPS staff. It was determined that we would further the business case for the project if a project team was developed. Their purpose of developing the business case, I don't have exact dates, but business case was developed and approved and ultimately we decided to move forward with the certification or authorization.

Q Did that analysis of the business case include examination and discussion of whether any of the potential work in the project could be integrated or not integrated into your current operations and maintenance program work?

A Yes.

Q Do you believe there is any one particular factor or

number of factors that warranted making this a particular project subject to CA approval from the Commission?

A It's really the amount of undergrounding that we're going to do. The dollar value for the undergrounding brings it to a level again that by statute we need approval from the Public Service Commission. I believe it's over 10 million dollars.

Q On page 4 of your direct testimony, you identified -- let's see. I had it here. There was a general discussion about, oh, yeah, pilot projects on line 17.

I take it from other testimony that this was -- these pilot projects were done in 2012. Were they at that time originally identified as part of or preceding this Board approved CA application?

A Yes.

MR. VARDA: I have no further questions.

ALJ NEWMARK: Mr. Peterson, I might have missed something about the abandonment issue. I just wanted to make sure I understand it. I think the first time I see that mentioned in the application or the relevant one is the paragraph on page 36, overhead facility abandonment statement. I was just curious because I want to know if these statements conflict if you can just clarify that sentence that says WPS is now planning to abandon any overhead facilities. Just want to know can you clarify

that statement with there is a number of places where further on in the application the company explains how it will abandon.

A Yes.

Q Cross-country easements and allow reforestation. Am I missing the difference?

A I think I really need to probably defer to Steve Schott what that actual sentence actually means.

ALJ NEWMARK: Thanks. Re-direct.

MR. VARDA:

Q I do have a question. You indicated earlier in response to my question about this that if there was an overhead or -- excuse me -- a cross-country line that was being substituted for with a line that followed rights of way that WPS would exam whether there was a redundancy value to the cross-country line and therefore might be retained as opposed to actually abandoned. Do you recall that testimony?

A Yes, I think what I said is that in most cases if it's cross-country single-phase line our intention is to remove that overhead line.

Q Okay. At this point, though, that intention has not been formulated or confirmed subject to I guess how the construction actually works out to a WPS determination that abandonment, in fact, occurred or will occur and

formal approval should be sought from the Public Service Commission. Is that correct?

A That is correct.

MR. VARDA: I have no other questions.

ALJ NEWMARK: Okay. Redirect.

MR. JACKSON:

Q Mr. Peterson, Ms. Loehr asked you some questions about the degree to which customers were complaining about reliability in areas to be affected by the project. Just some clarification.

In addition to complaints the PSC has received, did you also mention that there have been complaints directed to the company?

A Yes, there have been.

Q How do those complaints get known to the company?

A Typically, they are addressed at a local level. In many cases the regional engineer in the area will go out and have discussions with the customers on particularly a reliability situation.

Q And you mentioned line crews have communications with customers?

A Yes.

Q The record indicates there have been 19 complaints to the Public Service Commission about reliability in these areas. I think you mentioned that the outages peaked in

2010. Are you able to characterize the level of complaints being received by the company through either the area engineers or line crews over time?

A I guess the issue is that in 2010 and 2011 certainly the number of complaints to all of our personnel went up rather dramatically. I don't have a number to give you.

Q But your testimony is that the reliability problems peaked, the complaints being heard by the company also peaked?

A Absolutely, yes.

Q Ms. Loehr asked you some questions about Figure 7 in the application. I just wanted to clarify something there as well.

This table provides numbers on an average basis over five years, correct?

A That is correct.

Q So would it necessarily be the case that this table is telling us that 206,000 customers had no outages over five years?

A We're talking five-year averages. No, it does not. You can't conclude that. May be different customers who didn't have an outage across different areas.

Q In answering a question from Mr. Varda, you referred to a hundred crews being out in the field at any given time during the project. I just want to clarify, did you mean

crews or individuals?

A Individual people. I'm sorry.

Q If you had a hundred people out in the field, how many crews would that involve?

A Probably defer that to Steve Schott. I am not sure exactly how many crews that would be.

Q Okay. As to the easements on private property and the likelihood of people refusing to grant an easement as part of this project, you had some experience with that in the pilot. Is that correct?

A Yes, sir.

Q What is that experience?

A We had one individual who refused to grant us an easement. He would not -- particular customer, it was on some property adjacent to his home. His line was already undergrounded. He just refused to allow us the easement to go across this property.

Q That situation then resulted in the need to maintain an overhead line?

A Yes.

Q For service to other customers?

A Yes. I probably should defer to Steve Schott. He definitely knows the exact situation we're talking about.

Q How many customers did you -- did the company interact with during the pilot approximately?

A I believe it's in excess of 200 but, again, I probably should defer to Steve.

MR. JACKSON: That's all I have. Thank you.

ALJ NEWMARK: All right. Questions.

MS. LOEHR:

Q Yes, please.

In your discussion with Mr. Jackson you were talking complaints to the company, but you have no idea the number of complaints the company has received?

A No, I do not.

Q And you know in 2010 and 2011 some number went up. Does that mean it went back down in 2012 and 2013?

A The number has decreased with the reduction in outages and storms, yes.

Q And the chart in figure 7, Exhibit WPS Peterson 1, so I understand, it's still correct you could add a row to this chart that has the number zero under the number of outages and the number of customers 206,848. That would be average of just like every single one of those numbers in the chart is an average?

A That is correct.

MS. LOEHR: Okay. Thank you.

ALJ NEWMARK: Re-redirect.

You're excused. Thanks.

(Witness excused)

MR. POTTS: Our next witness is Mr. Schott.

ALJ NEWMARK: Okay.

STEVEN SCHOTT

being first duly sworn, testified as follows:

WITNESS: I do.

ALJ NEWMARK: Have a seat.

MS. LOEHR: Could we go off the record for a moment?

(Discussion off the record)

(Witness temporarily excused)

VERNON PETERSON

previously sworn, resumed the stand, and testified as follows:

EXAMINATION by MR. JACKSON

Q I don't work well with change.

Mr. Peterson, if I were to ask you the questions contained in your prefiled testimony, would your answers be the same?

A Yes.

Q And did you prepare at your direction Exhibit 1?
A Yes.
ALJ NEWMARK: All right.
MR. JACKSON: Anything else? Okay. Thank you.
(Witness excused)

STEVEN SCHOTT
previously sworn, resumed the stand, and
testified as follows:

EXAMINATION by MR. POTTS
Q Good morning, Mr. Schott.
A Good morning.
Q Did you prepare or have prepared at your direction prefiled testimony and an exhibit in this case?
A Yes.
Q And if I were to ask you the same questions today that are laid out in your testimony, would your answers be the same?
A Yes.
Q I would just like to clarify a couple of points. Could you please turn to Peterson exhibit -- Peterson revised exhibit which is Exhibit WPS Peterson 1cr revised?
A Could I have that?

Q Do you have a copy of that?
A No.
Q And without discussing the actual numbers because the numbers in the table are confidential, could you describe generally what the purpose of replacing the table in the application on page 19 with that table that's now included in the revised exhibit, what was the purpose of doing that?
A It was to correct the final costs that came in after the pilot projects were completed. At the time that we filed the application, we did have some of the costs that were already finalized for the pilot projects, but there were some costs that came in from construction and removal and things like that that we had to update. So these are the accurate numbers.
Q So is it fair to say the costs that were originally filed with the application included some estimates?
A Yes.
Q And the revised table includes what the company determined is the actual cost of the pilot project?
A That's correct.
Q And, again, without going into the actual numbers, why were the actual costs in the revised table less than the originally filed expected cost for the pilot projects?
A There were a number of reasons. We bid these projects

out to outside contractors, and the prices that they bid back on the projects were lower than what we expected by a significant amount. That was the major reason. There were some other smaller components in there such as the number of services were lower than what we expected, number of underground services that we installed, that saved some cost. Through the removal of the project, we were able to give away the poles instead of having to landfill them and haul them, and that saved a lot of labor and landfill costs.

We also had used our in-house designers for these projects who were experienced, didn't require any training on the new system. We had very efficient designers and that brought the design cost lower than anticipated.

Q And you said that the contract bid came in lower than you expected. What was the -- what does the company believe was the primary reason for that?

A Well, when we bid these out, we met with the contractors and kind of explained our overall plan, proposed plan for the SMRP, and I think a lot of them wanted to get the foot in the door and therefore bid low just to make sure they get in these pilot projects, get in on the ground floor.

Q And does the fact that the pilot project actual costs

were lower than expected change the company's total project cost estimate in this docket, 218 million dollar project cost estimate?

A No, it does not.

Q Why not?

A Well, we bid out underground construction for many years now, and the costs that we put in the application for the underground construction are more in line with normal cost that we experience in previous construction. So I think installation on pilot projects, those costs were more abnormal. If they bid low, we're expecting cost for the big project to be more in line with original cost estimates were.

Q Okay. I think I have -- I guess two more quick clarifications.

When Mr. Peterson was testifying a minute ago about the pilot projects, I believe he was asked to discuss the one customer that refused to allow WPS to have a right-of-way to underground on a particular segment. Do you recall Mr. Peterson's testimony?

A Yes.

Q Would you like to clarify the circumstances surrounding that?

A Yeah, yeah. It was a situation where we had one landowner that would not grant us an easement, and we had

to leave that one span of conductor overhead. However, what we were able to do in that project is make that an open point on the system and feed the customer beyond that point from another direction on the underground circuit. It really did not affect -- leaving that overhead did not affect anyone's service or reliability application. There is no one beyond that overhead span. It's still there as a backup if we ever need it in the future, and there is a lot of situations like that we can work through like that without forcing the customers beyond those points to be subjected to those outages that you might have a span that is left overhead.

Q And I would like to turn your attention to Figure 7 of the application which was also discussed in Mr. Peterson's testimony. Do you have that?

A Okay.

Q Do you have it up there?

A I don't have it. I think he took the application.

Q On that figure which is, again, Exhibit 1 to Mr. Peterson's testimony, Ms. Loehr was asking Mr. Peterson about the number of outages which is on the column on the left side, and then was looking at the total which is in the column on the right side and basically was asking whether there would be 206,000 or 47.3 percent of all customers that would be in the column

with zero outages. Do you recall that testimony?

A Yes.

Q And could you just explain I guess why the customers, the 206,000 customers may be listed under zero not actually had zero average over five years?

A Yeah, I guess it would be more accurate to say instead of zero, that it's less than one, because if they didn't hit the threshold of one outage per year over that five-year time span with the data, then they didn't meet this number that's in line for one outage per year. So I guess what I am saying, if they average .6 outages per year, they wouldn't have shown up on here because they didn't have the one outage number.

MR. POTTS: Thank you. I have nothing further. Tender him for cross-examination.

ALJ NEWMARK: Ms. Loehr.

EXAMINATION by MS. LOEHR

Q Mr. Schott, follow up right on that last point. It is also true for the number of outages in the table in figure 7 for one, those customers didn't necessarily have one outage every single year over five years. Is that correct?

A Yes, that's correct. It's an average over five years.

Q Some years one, some years zero?

A Yes.
Q It's all just an average?
A Yes.
Q Okay. Do you have your rebuttal and sur-surrebuttal testimony with you?
A I do not have my sur-surrebuttal. I have my surrebuttal or my rebuttal.
Q Thanks.

I want to clarify a difference between your rebuttal testimony and your sur-surrebuttal testimony.
A Okay.
Q On the number of customers that WPS believes will be directly benefited from SMRP.
A Okay.
Q On rebuttal WPS Schott 7, line 22, you've got the number of customers directly benefiting at 160,686 or 36 percent of WPS's customers. Is that correct?
A Yes.
Q And then in the sur-surrebuttal testimony on page 3, line 17 and 18, is this a change, a correction to the rebuttal testimony that the number of customers the company believes directly benefited is now 130,490 or 30 percent of WPS's customers?
A Yes, I guess you could say that. The 130,490 is the number of unique customers.

What's in my rebuttal testimony for 160,686, some of those customers are in there twice. They benefit both from the distribution automation and undergrounding portion of the project.

Q So there is some double counting in the rebuttal number and that was removed in the sur-surrebuttal number?

A Correct.

Q And your definition of what directly benefits all customers is all customers downstream of any circuit being undergrounded or equipped with distribution automation?

A Yes.

Q Did you also examine at CUB's request the number of customers that are directly touched by SMRP by having circuits that directly serve them be undergrounded or addressed through distribution automation?

A We provided some estimates.

ALJ NEWMARK: Did you want to mark that?

MS. LOEHR: Yes, please.

ALJ NEWMARK: That's Exhibit Schott 1.

MS. LOEHR:

Q Mr. Schott, you have what is an e-mail exchange between the counsel for the utility, Brian Potts, and myself?

A Yes.

Q And is that what you're referring to in terms of the

estimates that the company provided?

A Yes.

Q And is the information in there true and correct to the best of your knowledge?

A Yes.

MS. LOEHR: I would ask that be moved in.

ALJ NEWMARK: Any objections?

MR. POTTS: (Nodded negatively)

ALJ NEWMARK: So moved.

MS. LOEHR:

Q And in that e-mail, it notes 3,467 electric customers in 2014 and 4,165 in 2015 and then notes that those directly impacted for 2016 to 2018 have not been determined yet because the land parcels have not been determined yet. Is that correct?

MR. POTTS: I'm going to object to the term directly impacted as a little vague in characterizing that last sentence.

ALJ NEWMARK: Okay.

MR. POTTS: The last sentence says what it says. It's talking about the number of parcels involved are not directly impacted.

ALJ NEWMARK: Objection sustained.

MS. LOEHR:

Q The company's response identified customers for 2014 and

2015 but did not identify customers for 2016 through 2018?

A That's correct.

Q Does the 130,490 customer estimate from sur-surrebuttal WPS Schott 3 include customers that will be impacted in 2016, 2017 or 2018 by SMRP?

A Yes, it does.

Q How was that determined?

A It was taken off of our small system which is our mapping system. It has the system on our GIS system I should say, and if -- I have to get my terminology correct -- a trace was developed around those segments from the OCP device at the beginning of the segment, that's going to be involved in the project to the end customers and then the customers were tallied from that number. So the number of customers that actually are served from segments that will be undergrounded are within that total.

Q How is it that the company could identify that total and not customers whose land parcels would be where the circuit on their land parcels would be affected?

A We went -- we spent the time and went through the exercise to get them identified for the first number that you're talking about in response to the CUB questions or interrogatories that were forwarded to us through counsel

over the last month or so.

It was an effort that we had time to put in and get identified, get on a work schedule to get completed and just ran out of time to get the 2016, '17 and '18 identified. It would have been another operation to go through the whole thing again to do that. That's why I provided you estimates for 2014 and 2015.

Q So it was solely a function of timing, not a function of inability?

A That's correct. Timing and getting to how accurate did you want to get beyond the estimates that I gave you. Did you want exact numbers?

MS. LOEHR: I wrote on this one.

ALJ NEWMARK: Is that ERF'd?

MS. LOEHR: Yes.

ALJ NEWMARK: Just give me the ERF number.

MS. LOEHR:

Q 183625.

So I am showing you PSC reference number 183625 in the upper right-hand corner. That's Wisconsin Public Service Corporation's responses to CUB's fourth set of discovery. Is that correct? Is that the document I handed you?

A Yes.

Q And the e-mail that has been marked Exhibit WPS Schott 1,

that was a follow-on to the response to interrogatory 4 CUB 2. Is that correct?

A I believe so.

Well, I guess I can't answer that. Says in your e-mail in the exhibit that you are following up on for CUB interrogatory 2 and 3.

MS. LOEHR: Okay. May I have this marked as well, please?

ALJ NEWMARK: That's Schott 2.

MS. LOEHR:

Q Are you familiar with these interrogatories in Exhibit WPS Schott 2?

A To the extent I can keep them all straight, yes.

Q And are you familiar with the responses?

A Yes. I don't think I have those up here.

Q There are responses identified within the document itself, not necessarily the CD attachment.

A Okay.

Q There are answers on the document?

A Sure. Yes.

Q Okay.

A I am familiar with them.

MS. LOEHR: I move admission of WPS Schott 2.

ALJ NEWMARK: Any objections?

MR. POTTS: (Nodded negatively)

ALJ NEWMARK: Okay. So moved.

MS. LOEHR: I have nothing further. Thanks.

ALJ NEWMARK: All right. Commission staff.

EXAMINATION by MR. VARDA

Q Yes. Mr. Schott, I have a question for you regarding Exhibit 1, page 36, regarding the planning to abandon any overhead facilities. I believe Mr. Peterson deferred to you for a more in-depth explanation of what was meant by that statement by WPS, page 36?

A Yes. I think I can clarify that. I believe I was the one that wrote that section, at least these few lines there, and abandonment in that case didn't necessarily mean franchise abandonment, leave it in place and never come back to it. Abandonment in our operation areas is like for underground cable sometimes we abandon that in place which means of cutting it off, not tear it up. It was that kind of process.

Q Is that any way -- is such equipment still carried as essentially useful and on the books of the company or is it viewed as no longer part of the utility rate base when you conduct that kind of treatment to an underground line or an overhead facility?

A We really don't do that to overhead facilities but for underground lines it would be retired and off the assets

I believe.

Q Let me take you then to page 2 of your direct testimony, line 25.

MR. JACKSON: Sorry, Mike. What was the reference?

MR. VARDA:

Q Line 25, page 2, direct Schott testimony.

There is a definition of SAIDI index, the system average interruption duration index, and line 25 defines it as the sum of all customer interruption durations in minutes divided by the total number of customers served.

When we talk about their customer interruption durations, does that index measure multiple duration that may be experienced by one customer? In other words, multiple interruptions?

A Yes, it would be the sum of all of those interruptions added up over the course of the year.

Q So it would be all the unique interruptions experienced by the customer base meaning some customers may have one, others may have multiple but --

A Correct.

Q Then each interruption is unique and therefore counted for the purpose of the SAIDI index?

A That's correct.

Q Page 7 of your direct testimony, lines 8 through 10, you

indicate that installation method will assume 50 percent vibratory plowing and 50 percent directional bore. On what is that assumption based?

A Well, it was originally based upon our knowledge of the system in the areas we're going to be installing it, and of the application of the two different methods and what we have estimated based on other underground installations over the years, and then we calculated the estimates for the application based on that. We went through the pilot projects in 2012. We found out that at least in those four projects we did come out very, very close to the numbers that are shown here so it verified it.

Q I have a follow-up question for you regarding the distribution automation which you discuss briefly on lines 15 through 20 on page 7 of your testimony. Are you familiar with a set of three questions that I directed to your counsel and I presume was sent on to you based upon an e-mail I had dated May 3?

A Yes, I am.

Q Okay. So I am going to ask you the questions set forth now if you're ready?

A Sure.

Q My first question, what is the Wisconsin Public Service Commission's (Corporation's) estimated average cost per

distribution automation installation or DA installation?

A Okay. Assuming that what you're calling an installation is one switching point on a distribution feeder, our estimate that we used to calculate the dollars for the application were 75,000 dollars per installation. That included --

MR. POTTS: Can I stop you there? Is this confidential?

MR. VARDA: Well, then let's see, if all the information that you have given in response to my three questions is confidential, then we will hold for closed session then.

MR. POTTS: I am just not sure -- that number is okay. You're getting into cost estimates.

WITNESS: The level of what I'm doing here is more components of all the different -- it's the material, installation, design, engineering, so on. I am okay with giving these numbers.

MR. POTTS: Okay.

MR. VARDA:

Q Repeating the question, what is the Wisconsin Public Service Corporation's estimated average cost per distribution automation installation?

A 75,000 dollars. We have 100 -- roughly 152 of those planned at this point that will be defined as details are

designed.

Q Given that answer, what is this application's estimated total dollar cost for the distribution automation installation portion of the total SMRP? In other words, what percent of the SMRP is DA installation cost?

A I believe it's 9 percent. It's 20 million dollars of the 218 million construction, and there are also I mentioned the 75,000 dollars per recloser point. There are also points at the substation estimated at 25,000 dollars. There's 41 of those in the final design at this point.

Q 41. Okay.

Then based upon this information, can you tell us what portion of the increase in reliability sought by the SMRP does WPSC attribute to the distribution automation component of the SMRP?

A It is estimated at 9 minutes overall companywide.

Q Out of a total of how many minutes you're estimating for the project?

A I believe we were at 84 minutes -- in the neighborhood of 84 minutes of SAIDI improvements or more and 9 minutes of that would be attributed to distribution automation.

Q Okay. Based upon your experience with the company, has the company periodically installed distribution automation in the course of its annual operations and maintenance expenses?

A In some forms, yes.

Largely to accommodate the distributed generation that has been applied for and installed on our system at specific customers that have renewable generators primarily. There has been some automation done there in those situations, but this would be -- aside from a few small trial projects, this would be our first self fueling circuit improvements on the system.

Q Now, I am going to steer you back to figure 10 on Exhibit 1.

About the fourth line from the bottom there is a category or row described as distribution automation miles.

Could you please describe what that term means when you say distribution automation miles?

A Yeah, sure. That is referring to the number of miles of three-phase circuits that will be outfitted with distribution automation equipment.

So intermittent over 400 miles we had reclosers installed.

Q Okay. So in essence 403 miles of three-phase circuit is effectively subject to the DA supervisory oversight, if you will?

A That's correct.

Q Then I would direct you to figure 21 in Exhibit 1, and I

would ask you to explain briefly where this kind of configuration would appear in the network and how distribution automation would operate in the event of a flaw in the network, and describe what components are doing what, if you will.

A Okay. Sure.

This could be done anywhere on our system where you have the two-, three-phase main lines from two different feeders meeting up with each other. That is the first equipment you need to have constructed so that those two feeders touch each other, and at that point where they touch, you would create a normally open point and put a recloser there with communications. So you have the two feeders. This is kind of a simple scenario. You have the two feeders. You have the tie point with the recloser and then you have also additional reclosers throughout the main line between those two substations.

Q By feeders you mean substations and this is out in the circuitry of the distribution?

A Feeder is a circuit. So one substation can have multiple circuits. What is shown in this diagram is one circuit coming from each substation.

Q Okay.

A And they tie together towards the lower right portion of the diagram a switch or recloser normally open -- that's

your open point. Okay.

Q And by being open that means they touch but current doesn't flow through?

A Under normal operation current would not go through that point.

Q Okay.

A And there are customers served all the way along. There are other taps coming off these three-phase lines.

Q So in this case the recloser at the lower right is placed strategically for quality and voltage and generation stability, but in the event of a flaw on either side of that, it would flip closed that circuit, close thereby maintain service to those that might otherwise be cut off?

A That's correct. If you have a fault in another portion, you would open the recloser on each side of the fault and then restore power to the rest of the customers up to that isolated section.

Q Now, with respect to figure 22, I just want to kind of highlight a point about the installation and distribution automation. Would you agree with me typically that the installation of distribution automation is not going to involve this category called landowner communication or conducting environmental field work, the fourth line?

A It would not include landowner communication. However,

if we had to install new poles to mount the reclosers on, there would be an environment check for pole installation. We could use existing poles but --

Q Typically existing pole installations would not require you to get an environmental permit of any sort, would it?

A Right. If we had -- if we ended up wanting to install a new pole in a new area, there would be a quick check.

Q Normally with the DA installation, there would not be any significant real estate effort involved, would there, in looking at figure 22?

A That's correct. That's correct for the most part, we would locate -- we have flexibility where we can put the recloser and --

Q Is removal or project close out two sets of activities ordinarily associated with distribution automation or not?

A Not removal unless we were replacing an existing recloser we would remove the old recloser. Project close out would follow our normal project closing process.

MR. VARDA: I have no further questions.

ALJ NEWMARK: I have a few for you.

WITNESS: Okay.

EXAMINATION by ALJ NEWMARK

Q At the beginning of Q and A, Mr. Potts asked you to

explain some of the updates that were created for figure 19, and you mentioned that part of the reason for the difference in those numbers was less underground work was expected, less undergrounding happened than was expected. I was curious if you had any reason to explain the difference.

A I may have misstated that. I didn't mean less underground construction than anticipated.

Q Okay. Was there any difference or was it greater, any --

A Oh, the mileages did change on that exhibit, very small amount primarily because of the Squirrel Lake project.

It came in slightly less distance than what we had taken of the original design so actual footages installed did vary by a small amount. That was one of the reasons for a small difference in the prices.

Q It would be a small difference in the cost, not something you consider significant in the differences in the prices?

A That's correct.

Q All right. Also, we had an issue with that infamous sentence in the application on page 36 which deals with abandonment. I was just wondering, I presented this question to Mr. Peterson, and he asked to defer it, thought you would be able to answer this. So I was just curious in terms of the statement that was made about

abandoning overhead lines would not be abandoned. Can you clarify how that relates to the different references stated in the application that deal with the abandonment of easements and abandonment of cross-country lines? Are we talking about two different things? Can you explain how those two relate?

A Okay. With regard to abandonment of easements, what we refer to in the application there was, if we were relocating a line where we have an existing easement and we no longer need the easement, if the landowner would request us to release the easement, we would do that if we no longer have facilities on that easement.

Q That would be abandonment of an overhead line?

A No, that's talking about the easement only.

Q In order to abandon an easement, you would be abandoning a line on an easement that the line is running on. You have to abandon the line. That is an easement line?

A We never would just leave a line sit there. That line -- I think it was page 36, meant we're not going to leave a line just sit there, not maintain it anymore. You know, leave it to the elements and eventually it will fall over.

What we're planning on doing if we have cross-country sections of line and we reroute them along the road right-of-way, that cross-country section is a

line no longer needed, then we go through the process with the land owners and with the Commission to get permission to remove the line and then we would remove them if we were able to successfully go through that process.

ALJ NEWMARK: All right. Thanks.

That's all I have. Redirect.

MR. POTTS:

Q Why don't we stay with that sentence. I think it's possible that, obviously, wasn't worded very well. I'm wondering if we could -- if I could propose a revision, see if that's what you're trying to describe. I think there is still some confusion.

That sentence on 36, I think what you're intending is that WPS is not planning to abandon in place any unused overhead facilities?

A That would be worded much better.

Q In other words, to the extent there may be segments of the line or of the lines that are left in place and still energized but the extent WPSC no longer need any overhead lines to be energized, those would be removed. Is that correct?

A As long as we go through the abandonment --

Q Right.

A -- process with the Commission.

MR. POTTS: Okay.

ALJ NEWMARK:

Q Let me just interrupt a second. I just have one other question that dealt with the process where you, the company, will not force an easement for undergrounding if the landowner is not willing to give it. Is that -- is my understanding correct?

A That's correct.

Q I was just curious if you're developing underground lines and one landowner in the path of that line wouldn't give the easement, what's the plan, you're going overhead and then back underground or --

A Well, I think when the reference was made earlier in that scenario, that's assuming there is an overhead line there now, and when we approach the landowner and try to work with them to get an easement to install an underground facility to replace the overhead line that existed, it's really up to them. If they refuse, we're not planning on doing anything more than trying to work with them, get their permission. That scenario if there is an existing overhead line, if it's a customer served off that line, they still have to serve off of the overhead line. We have other options. Keep in mind a lot of this project is going through road right-of way and wouldn't require easements.

We can go across the road and put it underground across the road, for instance, feed from another direction. There is no trick. We can do that, work through most --

ALJ NEWMARK: Okay. Thanks.

MR. POTTS:

Q I just had a couple more.

Ms. Loehr asked you earlier about page 3 of your sur-surrebuttal testimony, specifically lines 16 through 18 where you calculate I believe your word unique customers benefit from undergrounding and/or distribution automation to be 130,490.

Do you see where I am in the testimony?

A Yes.

Q I believe Ms. Loehr asked you if there was a problem I guess with the 160,000 figure compared with the 130,000. The 160,000 figure included double counting. Do you remember that?

A Yes.

Q I would just like to clarify when you talk about double counting are you talking about double counting the unique number of customers?

A We would have counted the customers that were benefiting from the underground portion and benefiting from the DA portion counted twice instead of once.

Q Okay. In other words, so customers that are affected by both the DA and undergrounding, will benefit from both of those projects. Is that correct?

A Yes.

Q And I think there was a little bit of confusion possibly regarding what has now been marked Schott Exhibit 1, the e-mail between -- e-mails between Kira Loehr and myself.

Could you just clarify what the numbers in Exhibit 1 for 2014 and 2015 are exactly? How were they calculated?

A You're saying this is Exhibit 1.

Q Yes, the e-mail.

A The e-mail is Exhibit 1.

Those are the number of electric customers served directly from portions of line that would be undergrounded or with overhead line replaced with underground lines. So they're served directly from the new underground portion of the line.

Q So, in other words, let's say we have a segment that is being ungrounded that is coming directly out of a substation, for example.

The numbers that you have calculated here for this exhibit would be -- is it correct they would just be the customers that are absolutely touching that segment?

A Yes.

Q Directly connected to that segment?
A Yeah.
Q Okay, and the 130,000 figure would include the customers that are both directly touching that segment and all the customers downstream?
A That's correct.
Q Okay, and just one last question. Ms. Loehr asked you about the 2016 through 2018 numbers that are not included in this e-mail. Do you remember that?
A Yes.
Q Could I turn your attention to figure 10 of the application?
A Okay.
Q And the first row of figure 10, what is that listing?
A Are you referring to the number of segments to underground?
Q Are the 2014 and 2015 numbers in Exhibit 1 in the e-mail which I think were 3,467 electric customers in 2014 and 4,165 electric customers in 2015, were those derived from these number of segments?
A Yes.
Q And if you look at 2016 through 2018, do the number of segments to underground increase?
A In this table, yes.
Q So, in other words, the company is planning to

underground more segments as the project progresses per year?

A Yes.

Q Now, recognizing that you haven't gone through and calculated the specific numbers, is a good way to potentially estimate the total number of customers that would be included in all five years of the project and take the total number of underground segments for 2014 and 2015 just ratio that with the number of customers you have calculated and then apply to the total number?

A Not really because the segment can be any length.

Q I see.

A They vary in length all over. Some of them are a half mile, some of them are a mile and a half. It would take a little more than that.

Q Okay. So do you have any -- would you expect the numbers in 2017-2018 to be in the ballpark 4- to 5,000 electric customers?

A Yes.

Q So the total for all five years of customers that are directly being served from the segments that would be undergrounded would be roughly 25- to 30,000?

A I would say 20- to 25,000.

MR. POTTS: Okay. I have nothing further.

ALJ NEWMARK: Okay. You're excused. Thanks very

much.

WITNESS: Thanks.

(Witness excused)

MR. POTTS: We will call, Mr. Moser.

ALJ NEWMARK: Okay.

RICK MOSER

being first duly sworn, testified as follows:

WITNESS: I do.

EXAMINATION by MR. POTTS

Q Good morning, Mr. Moser. Did you prepare or have prepared at your direction prefiled testimony and exhibits in this case?

A Yes.

Q And if I asked you the same questions today that are contained in that prefiled testimony, would your answers be the same?

A They would.

MR. POTTS: I tender Mr. Moser for cross-examination.

ALJ NEWMARK: I just wondered, what's Mr. Moser's exhibit? I don't have the listing.

MR. POTTS: I guess he may not have any exhibits.

Sorry.

WITNESS: Just have direct.

ALJ NEWMARK: All right. Okay. Cross.

EXAMINATION by MR. VARDA

Q Mr. Moser, I had a question regarding page 3 regarding the application to the Department of Natural Resources for various permits.

In your experience, would the permits required by the DNR permit or preclude the ability of, say, a telecommunication company to include any undergrounding activity or wetland affecting activity to include the laying of broadband fiber with the electrical work contemplated by WPS, if you know?

A I don't want to speak for the DNR, but they typically require accurate applications and require all facilities to be listed.

Q Page 4, line 20, of your testimony, you state that the field survey during the growing season prior to construction, what do you mean by the growing season?

A Define that basically as summer when vegetation is growing or in bloom, at least have their leaves out. It optimizes the application.

Q And on page 5, line 16, there is a reference to project construction areas. What is the working definition that

you use for a project construction area?
A Generally, I guess I would classify that as areas being disturbed by construction, and I would also include areas that are directionally bored even though there may not be on the surface impact.
Q So a construction area is that a case-by-case determination of what constitutes a construction area?
A You know, really for this project it's wherever you install facilities.
Q Well, I'm trying to translate the area to a defined stakes in the ground geography around a construction site. Is that area determinable by some formula or is it done by an on-site judgment by somebody with authority to mark the areas that are subject to the permitting and erosion control efforts?
A Sure. Part of the project plan is to have environmental inspectors on the site, and one of their job responsibilities is to discuss with the construction contractor which areas may be disturbed, which areas must be avoided.
Q That leads into my next question. Are those environmental personnel employees of WPS or are they employees of third party consultants?
A Third party consultants.
Q Are those consultants going to have authority to issue

stop work orders if there is a problem?

A Yes, they will.

Q Does WPS have any problem with a condition in the order requiring that independent environmental personnel consulting on the project have stop work authority?

A No, we do not.

Q On page 6 and 7, there is discussion about general cleaning of equipment, for example, before moving from an infested area with invasive species to another. I reference page 7, line 8 to 10.

Who enforces the cleaning of the equipment?

A Ultimately, enforcement would be the third party inspectors. That information, areas that either needed to be avoided or areas where the equipment needed to be cleaned prior to moving would be shared with them prior to construction.

Q So I understand the workings, if you have independent consultants acting as your environmental personnel, will they have the ability to issue directives to your construction crews who are also independent contractors to clean equipment or properly stake construction areas? In other words, to enforce all your environmental requirements?

A Yes. All the environmental requirements are determined beforehand and the third party environmental inspectors

are given that authority to implement that in the field, that may be directly involved to follow the plan.

Q This is the mechanism of control WPS plans for this entire CA that a separate set of environmental personnel with proper delegated authority from you have the ability to issue stop work or correction directives to control the work of the construction crews of the other contractors. Is that fair to say?

A That's fair to say.

Q And I would understand WPS is not going to object to any conditions in an approval order that would require that kind of authority be given your independent environmental personnel?

A Yes, I believe so.

MR. VARDA: I have no other questions.

ALJ NEWMARK: Okay.

MR. POTTS:

Q I just have one quick clarification.

With regards to environmental monitoring of the construction activities, would WPS also have some of its own environmental personnel at the sites on occasion?

A On occasion it would be. Overall we would be managing the process. There would be intimate -- it would not be hands off. We're managing and controlling, but the day-to-day activities would be handled through the third

party consultants.

MR. POTTS: Okay. I have no further questions.

ALJ NEWMARK: Okay. All right. You're excused. Thanks.

(Witness excused)

So we can go off the record.

(Discussion off the record)

ALJ NEWMARK: We will meet back at 12:15.

(Hearing adjourned to 12:15 p.m.)

(Hearing resumed at 12:15 p.m.)

ALJ NEWMARK: Ready to get back on the record? Who do we have next?

MR. JACKSON: Mr. Derricks.

DENNIS DERRICKS

being first duly sworn, testified as follows:

WITNESS: I do.

ALJ NEWMARK: Have a seat.

EXAMINATION by MR. JACKSON

Q Mr. Derricks, did you prepare direct and sur-surrebuttal

prefiled testimony in this matter?

A Yes, I did.

Q And do you have any corrections to that testimony?

A Not to my knowledge.

Q If I were to ask you the questions contained in your prefiled testimony, would your answers be the same?

A Yes.

Q And do you have any clarification or other comment that you would like to make at this time?

A No.

MR. JACKSON: The witness is available for cross.

ALJ NEWMARK: Okay. Cross-examination.

EXAMINATION by MR. VARDA

Q Mr. Derricks, I understand you're the Director - Vice President of Regulatory or Assistant Vice President of Regulatory Affairs for Integrys. Is that correct?

A Yes, it is.

Q And I would direct you to the bottom of page 2 and top of page 3 of your testimony where you discuss the various costs associated with the project.

A That would be the direct testimony?

Q Yes, your only testimony.

ALJ NEWMARK: He had sur-surrebuttal.

WITNESS: Sir, which?

MR. VARDA:

Q Your direct.

A All right.

Q And the cost you recite here correlate, do they not, with the cost set forth in figure 17 of Exhibit 1 sponsored by Mr. Peterson. I will just show you.

A That is my understanding, yes.

Q Now, the first two main boxes of figure 17 show SMRP capital cost for years 2012 and 2013.

And in your direct testimony you identify the total costs are expected to be approximately 1.2 million for planning and engineering in 2012 and '13. Is that correct?

A Yes.

Q By this application, WPS is not asking for any particular Commission accounting treatment with respect to the cost identified for 2012 and 2013 respecting planning and engineering?

Let me reframe the question. This is the CA application, correct?

A Yes, it is.

Q And you're asking -- and you're asking for the Commission to authorize the expenditures of the monies listed on figure 17 to do these upgrades to the distribution network and the distributive automation of Integrys's

network or WPS's network specifically. Is that correct?
A That's correct.
Q Part of the cost you have identified through figure 17 in your direct testimony associated with this construction authorization are planning and engineering in 2012 and 2013. If there is approval by the Commission to go ahead with construction of the dimensions of this project the Commission is not, in your opinion, simultaneously telling you exactly what accounting treatment should be given dollars expended in 2012 and 2013, correct?
A The only question we have asked for is if we receive accounting treatment so --
Q To that extent you believe you have?
A Yes.
Q Okay. That treatment, AFUDC treatment for the cost of this year are treated as a capital expense. Do I understand that correctly?
A The cost would be capitalized, yes, that's my understanding as a non-accountant.
Q It does not speak precisely to whether there would be any associated deferral of treatment with respect to the categorization under AFUDC?
A We did not specifically ask for a deferral of costs. I believe we are treating this CA application similar to other CA or CPCN applications where we're treating

project development, preliminary engineering, permitting and licensing just like we have for other projects.

Q And do you know, if you can tell us, how the expenses shown in the boxes for 2012 and 2013 today for the SMRP planning and engineering cost, can you tell me how they have been booked for WPS at this time?

A Not at this time I cannot.

MR. VARDA: I have no additional questions at this time.

ALJ NEWMARK: Any other cross? Redirect?

MR. JACKSON: No.

ALJ NEWMARK: Okay, sir, you're excused.

(Witness excused)

MR. POTTS: WPS calls Mr. Kaufmann -- Dr. Kaufmann.

Raise your right hand, please.

LAWRENCE KAUFMANN

being first duly sworn, testified as follows:

WITNESS: I do.

ALJ NEWMARK: Have a seat.

EXAMINATION by MR. POTTS

Q Good afternoon, Dr. Kaufmann.

Did you prepare or have prepared at your direction prefiled testimony and I believe one exhibit in this case -- take that back, two exhibits in this case?

A Yes.

Q If I asked you the questions in that testimony here today, would your answers be the same?

A Yes.

Q Were you in the room earlier when Mr. Peterson clarified his testimony with regards to the value of I guess the amount WPS would save in O&M costs related to the project?

A Yes, I was.

Q And do you remember what that value was?

A Excuse me, 1.037 million.

Q Okay, and just to clarify in the calculations you performed in your sur-surrebuttal testimony and Exhibit 2, did you use that 1.037?

A No, I didn't. I used 537,000 as the annual -- as the initial level of O&M savings.

MR. POTTS: Okay. I have nothing further. I tender this witness for cross-examination.

ALJ NEWMARK: Cross.

EXAMINATION by MS. LOEHR

Q Thanks. Mr. Kaufmann, you have concluded that the value to customers of electric service for what they would be willing to pay to avoid a one-hour outage is $21.22 per kilowatt hour?

A That's correct, that's a proxy for the average customer on the WPS system.

Q And the basis for that conclusion is the $6.90 figure that you cite from the LBL study?

A Correct.

Q Did you conduct your own survey of WPS customers?

A No, no, I didn't. I didn't have the time.

Q Have you ever before calculated the economic benefit to ratepayers of outage time recouped by a service reliability project?

A Not specifically for a reliability project but I have estimated the value of the reliability to the customers.

Q In what way?

A Drawing on survey evidence like the LBL study.

Q In what forum?

A For service quality incentive plans that have been proposed by companies and also advise regulators in different jurisdictions, Australia and Canada.

Q Service quality incentive plans, is that like an employee incentive program?

A It's a number of companies have service quality standards

they're expected to perform, and if their actual performance falls below the standard or sometimes exceeds the standard, then there is a penalty for falling below, sometimes a reward for exceeding the standard, and in those cases, the issue is what's an appropriate penalty or reward rate for either penalizing or rewarding the company, and in those instances, I have drawn on survey evidence on the value of the reliability to customers.

Q And any of that within the last ten years?

A For the service quality incentive plans, no, but I have been advising the regulator in the Canadian Province of Ontario for service reliability over the last three years. We have discussed that, and they actually commissioned the survey in Ontario, and I work with the regulator there to at least inform the design of the survey and to interpret the results.

Q The type of calculation you perform in this, you have not performed for a regulatory proceeding before?

A No, I have not.

Q A question about your sur-surrebuttal testimony. Do you have that with you?

A I don't have it in front of me, no.

MR. POTTS: The sur-sur?

MS. LOEHR: Um-hum.

(Document handed to witness)

MS. LOEHR:

Q On pages 7 and 8 of your sur-surrebuttal testimony, you talk about the LBL study and the estimated outage costs for small to medium commercial and industrial customers. Is that right?

A That's correct.

Q Do you know how many medium commercial customers will benefit from SMRP?

A No, I don't.

Q Do you know how many medium industrial customers will benefit from SMRP?

A No.

Q Do you know how many small commercial customers will benefit from SMRP?

A No, I do not.

Q Do you have pages 11 to 12 of your sur-surrebuttal testimony?

A Yes, I do.

Q You have a variety of scenarios there. Some of them assume different energy growth rates?

A Correct.

Q Between 1 percent and 1.5 percent?

A Yes, those are the two different assumptions.

Q What were the bases for those assumptions?

A Just based on my experience in the industry and what I

know of general trends in kilowatt hour consumption, kilowatt hour consumption per customer and customer growth. I think most companies are experiencing customer growth on the order of 1 to 1.5 percent per year. The kilowatt hour per customer consumption varies quite a bit from place to place. In general, that's still positive. If the company has 1 1/2 percent customer growth and their kilowatt hour sales per customer are increasing, even if they're increasing at a slow rate, then kilowatt hour growth would be in excess of 1.5 percent. So 1.5 percent roughly is how much customers are growing for electric utilities, average electric utility in the US and Canada, and if that's the case and kilowatt hour consumption per customer is constant, then kilowatt hour growth is by that amount.

In some places kilowatt hour consumption per customer is declining, some places it's growing more rapidly, but just drawing on that general experience what is happening in the industry.

Q You didn't look at WPS in particular?

A No.

Q Or even in the rate case they have filed for the next test year 2014?

A No, I did not.

Q And their sales forecast and projections in that case?

A No.

MS. LOEHR: That's all. Thank you.

ALJ NEWMARK: Commission staff.

EXAMINATION by MR. VARDA

Q Just one question, Mr. Kaufmann.

Pages 2 and 3 of your sur-surrebuttal, you challenge Mr. Hahn's quotation of the Lawrence or LBL study report --

A Correct.

Q -- as omitting certain sentences, but I found it difficult to locate exactly where in Exhibit 2 the disputed language is located or could you steer us to that?

A I believe it's Exhibit 1, not Exhibit 2.

Q Whatever the report is, Exhibit 1?

A It should be on page -- I'm going by memory. I believe it was page 32.

MR. VARDA: Okay. That's all I needed to know. Thank you.

EXAMINATION by ALJ NEWMARK

Q Dr. Kaufmann, I was wondering -- I just have a question regarding how you would calculate, how you evaluate the value of service to customers in terms of interruptions

and then we're looking at interruption would be or avoiding interruption, the benefit to customers?

A Right.

Q That's calculated by using the usage rates for a particular utility. What kind of mechanism or what kind of valuation number do you use in that calculation?

A I am not sure what you mean by usage rates.

Q Cost per kilowatt hour rather than total rate paid, the average rate per month?

A The value to the customer per kilowatt hour. Is that what you mean by rates?

Q I think so.

A Okay. I know these concepts are relatively unfamiliar to stakeholders and a lot of staff, but that's one reason why I did it. The ultimate basis for this was the LBL estimate that a residential customer, the average residential customer would pay $6.90 to avoid a one-hour outage. If you believe that estimate which comes from the LBL report, then you can translate that it's just a matter of basic math to translate that into dollar per kilowatt hour analysis measure which is what I did. It's the dollar per kilowatt hour analysis is less familiar to a whole lot of people.

Q So you wouldn't need to change your analysis if, for example, the utility is collecting more of its cost

through a fixed charge rather than usage?

A No, because this is the ultimate value to customers for the power they're receiving, not what they're paying because it's a regulated utility they should pay much less than what they would be willing to pay if this was provided by a utility that wasn't regulated.

Obviously, what a customer pays is well below the actual value of service to customers.

ALJ NEWMARK: All right. Thanks.

MR. POTTS:

Q I just have a couple of questions.

Ms. Loehr asked you whether you know the exact number of commercial or industrial customers that would be affected by the SMRP project. Do you remember that question?

A Yes.

Q Did you, in your opinion, need to know the exact number of commercial or industrial customers to do your calculation in this case?

A No. In fact, the actual customer numbers are not really that relevant. What matters more are the kilowatt hour sales to the customer, not the customer numbers themselves.

Q Could you explain that a little more?

A Because ultimately the purpose of the SMRP is to reduce

outages, it's to reduce SAIDI. It's reduced SAIDI by 4 minutes. So that means SAIDI is a reflection of kilowatt hour delivery. When you reduce SAIDI, it's not so much the number of customers expected but total duration of the kilowatt hour deliveries that are going to be impacted. So ultimately what matters evaluating the impact of SMRP is not only the number of customers but the total delivery to those customers. That's what is reflected in SAIDI.

Q So, in other words, if you had one small commercial customer that was interrupted for an hour and you had one residential customer that was interrupted for an hour, what would matter would be how many kilowatt hours each one of those customers was using during -- would have used during that hour?

A That would be important, also just the inherent importance of electricity to the customer. If a restaurant is out for an hour, the impact of that restaurant not being able to serve customers during the lunch hour, that would be an enormous loss for that commercial customer. So two things, both the total delivery of kilowatt hours that the customer would have consumed during the outage and inherent value of the power to the customer.

Q Ms. Loehr also asked you about where you got your one

percent and 1.5 percent growth projections. Do you remember that?

A Yes, I do.

Q If you assumed no growth, how would that impact your result?

A I am kind of performing this calculation as we speak. This will be a little rough. As I recall, the difference between breakeven scenario one and breakeven scenario two was reduction in the -- let me just double-check my testimony.

Yes, the difference between breakeven case one and breakeven case two, those cases differ in terms of the assumption on how fast kilowatt hours grow. So in case one kilowatt hours grow one percent. In case two, they grow by 1.5 percent. That's the only difference between those two scenarios and the impact of that additional half percent increase is to reduce the critical value or the value at which the SMRP would pay for itself by 45 cents per kilowatt hour from 3.55 to 3.10. So if there was no growth assumed, then essentially you're going from 1 percent to zero percent and you basically multiply by two. So that would be 90 cents and add that to the breakeven cost for the SMRP value for case one. That would raise that to 4.45 an hour. The only thing that can be impacted here are the critical values -- strike

that. The one thing I can estimate with some degree of confidence just kind of sitting here on the stand would be the critical value would probably rise about 90 cents.

Q And if you assume no load growth, would your project pay for itself over its life?

A Yes, 4.45 is well within -- well below what I think is the most reasonable estimate for the value of service to WPS customers.

MR. POTTS: I have nothing further.

ALJ NEWMARK: Okay.

MR. VARDA:

Q I have a question regarding the values, how they're cast here. I am going to struggle with this question, I am sure.

In terms of doing this analysis of the value of willingness to pay to avoid an outage, for working purposes, use a one hour outage.

Is the research data that you looked at making the inquiry generally as you understand it to ask customers or calculate a value to a customer for a forward looking question as to how much they're willing to pay to avoid an outage in the future?

A Yes.

Q Forward looking?

A Yes.
Q So you would understand that the research database was asking the customers, there's going to be an outage and what is it worth to you to avoid that outage on a dollar per kilowatt basis. You've got to say something.
A Yes, more or less. It's a little more complicated than that, but that's essentially correct.
Q Are you aware of any research or did you encounter any research kind of a complimentary approach in saying to the customers, the survey database, what is it worth to you in dollars per kilowatt hour to have a 100 percent all hours reliable service?
A I am not aware of any research on that particular issue, to eliminate all outages for the remainder of their lives. Is that essentially what you're asking?
Q Well, not for the remainder of their lives. Taking it to the extreme to make it ridiculous. I want to keep to the customer buying service. If this question about outages were flipped around and asked how much are you willing to pay for 100 percent reliability as generally might be marketed in the marketplace, did you encounter any research that looked at the question that way and come up with a dollar per kilowatt hour value?
A I am not aware -- I am not aware of any particular research that framed the question that way.

Q Okay. Have I framed two distinct different ways of asking the question about the quantity and performance of delivery of service that would be a methodological concern to you in framing the research question of the type WPS presented to you for your testimony purposes here?

A Do you mean the second question?

Q Yes.

A No. Because WPS is not -- they're not guaranteeing eliminating all outages possible, going to provide 100 percent reliability.

Q I am not asking what WPS should do. I am asking what you have considered as a consultant in economics. Is there a methodological distinction for you or not with respect to framing the question differently in the manner I just proposed to you?

A Yes, it would be a different survey question. So that would be an issue.

Q Can you tell me what kind of distinction come to mind, if any, in casting the question about performance as selling 100 percent reliability versus compensating or avoiding costs for outages expectable in the future?

A Well, they would both be -- two dimensions to that. One is time dimension, both be in the future. In both cases the issue is what would you value a certain change in

your reliability in the future. I think they're identical in that respect. The issue is what's the magnitude of the change, one hour outage, what you're used to experiencing or complete elimination of outages. The difference is the magnitude of the promise and the magnitude of what is the expected change in the reliability, and the second issue is it would be a difficult thing to get from a technical perspective because of the boundaries. This is a technical issue. I'd rather not get into it, but any time you have -- when you have kind of -- you're not looking at a continuous sort of variable, you're looking at a variable that's 100 percent, beyond 100 percent duration. That raises the technical sort of estimation issue that are different and more complicated to deal with in just a general value service study.

MR. VARDA: Thank you.

ALJ NEWMARK: Go ahead.

MS. LOEHR:

Q Couple of questions. First, following up on Mr. Varda's question, does the framing of a question in a survey matter for the results?

A It can, yes.

Q So if a question is framed would you be willing to pay 10 dollars for an outage, that could have a different result

than an open ended question what would you be willing to pay for an outage?

A Yes, and one of the values of the LBL study, the LBL study brought together a lot of different evidence that was conducted by different companies in different parts of the country, but they were all using the standardized approach for word development for the survey which the authors in fact had written for the Electric Power Research Institute. This was conducted using a methodology when underlying data was collected in a consistent way.

Q Going back to my earlier question, what is the difference, what impact, including a dollar amount in the question does it have on the answer?

A If it was framed that way, it could potentially bias the answer.

Q Sort of an anchoring effect that the respondent starts from that premise, that number that is given in the question and then --

A Correct.

Q -- adjust from there, potentially adjust --

A That's right.

Q -- to the actual value?

A EPRI outage which is what they were using doesn't frame the question that way.

Q I wanted to turn to Mr. Potts' questions sort of addressing my questions about the number of customers, did you know the number of medium commercial or small commercial, medium industrial customer kilowatt hours. Do you know the number of kilowatt hours that are sold to medium commercial customers in WPS service territory?

A Just what data I presented in my rebuttal testimony. That's all I have.

Q Is there any data in there that identifies the number of customers?

A Not the number of customers.

Q Number of kilowatt hours sold to medium commercial customers?

A I know there was -- my recollection is that it was -- I know I was given data on commercial, industrial and residential. I don't recall whether that was small or medium commercial.

Q It's in your testimony?

A It's in my rebuttal testimony, yes.

Q Could you show me where?

A I don't have my rebuttal testimony in front of me.

MS. LOEHR: Somebody have an extra rebuttal?

MR. POTTS: Brad is getting it.

I think it's on page 4.

WITNESS: Page 4. Page 4, line 7 through 11.

MS. LOEHR:

Q So you're looking at WPS on a systemwide basis on rebuttal?

A Correct.

Q And not areas specifically impacted by SMRP?

A That's correct.

Q Do you know the number of kilowatt hours sold to medium commercial customers in areas impacted by SMRP?

A No.

Q Do you know the number of small commercial customers in areas impacted -- number of small commercial customers impacted by SMRP?

A No.

Q And for industrial customers?

A No.

MR. LOEHR: That's all I have.

ALJ NEWMARK: Redirect.

Okay. Thanks very much. You're excused.

(Witness excused)

MR. POTTS: We will call Mr. Fenrick.

STEVEN FENRICK

being first duly sworn, testified as follows:

WITNESS: I do.

ALJ NEWMARK: Have a seat.

EXAMINATION by MR. POTTS

Q Mr. Fenrick, did you prepare or have prepared on your behalf prefiled testimony in this case?

A Yes.

Q And if I asked you the questions today that are laid out in that testimony, would your answers be the same?

A Yes, they would.

MR. POTTS: I tender the witness for cross-examination.

ALJ NEWMARK: Questions.

EXAMINATION by MS. LOEHR

Q Yes.

Mr. Fenrick, you calculated what you called a cost per minute outage reduction benchmark in this proceeding?

A That's correct.

Q Have you previously calculated cost per minute outage reduction benchmark in any other proceeding?

A No other proceeding. Model was developed for a client for internal management purposes.

Q Your calculation methodology has never been reviewed by a regulatory body?

A That's correct.

Q Do you believe that reliable service should be balanced by reasonable costs?
A Yes.
Q And that a project shall only be funded if the benefits of the project outweigh the costs?
A Yes, generally, but there are always some other issues besides reliability -- O&M savings, as stated here, or safety concerns. So there is a whole list of other intangible factors that should also be weighed but in general solely reliability driven projects generally have benefits that outweigh costs.
Q And to determine if a project's benefits outweigh the cost, do you think it's important to analyze alternatives?
A Generally, given the constraints of -- normally utility personnel kind of have a good feel, don't want to necessarily analyze projects that aren't going to work out, not pass that cost/benefit.

Given the project, project alternative A, you don't want to analyze D, E, F, G, kind of a waste of time and resources with kind of the internal knowledge it has a pretty good sense what will pass a test.
Q Does that mean that you think any alternative has to have the same level of benefits of what any original proposal is?

A Could you restate the question?
Q Sure. So does an alternative in order for it to be considered in an analysis of whether a project has benefits or not, must the alternative have the same level of benefits as the original proposal?
A I would say no. It could still be analyzed even if it has lower benefits. I would say no to that.
Q Okay. So it would be appropriate, for instance, to consider an alternative that would have half the benefits of the original proposal and say -- or, excuse me, half the cost of an original proposal but more than half of the benefits?
A I would say that would be appropriate, but given just perhaps even if that alternative does have kind of that same benefit/cost ratio doesn't necessarily eliminate the first alternative, both might make sense, might make perfect economic sense and be cost effective.
Q You wouldn't rule that alternative out either, both might make sense?
A Correct.
Q Okay. Did you examine alternatives to SMRP in this proceeding?
A Not as it pertains to WPS. In the model, I would look -- we're essentially creating a benchmark that predicts the SAIDI impacts given those costs, and they're using

publicly available data where utilities have at their disposal a whole array of reliability projects. In essence, our benchmark is looking at all possible projects that could impact reliability in that data.

Q I am not sure I totally understood that.

The data is looking at all possible alternatives to SMRP?

A What we're doing is correlating essentially capital projects, capital costs, kind of capital infrastructure on utilities of the 96 US IOUs that we examined. At those utilities they have even implemented a whole host of reliability projects. The benchmark is essentially looking at the cost effectiveness of the benchmark for all possible reliability projects. So in a way, the SMRP is surpassing that benchmark, that benchmark is encompassing all the potential array of reliability projects if that makes sense.

Q Have you advocated for a more granular analysis of alternatives when considering whether or not to undertake a particular reliability project?

MR. POTTS: I'm going to object. What do you mean by granular?

MS. LOEHR:

Q Where you have identified specific alternatives to a project?

A In this case, no, I haven't. There wasn't time.
Q That question was not confined to this case.
A In the past, with research we have looked -- I have been involved in business cases, creating business cases for alternatives and looking at those.
Q What does it mean to create a business case for an alternative?
A Similar to what's been done here in the SMRP case looking at cost and benefits of a given project.
(Documents were handed out)
ALJ NEWMARK: Mark that?
MS. LOEHR: Yes, please.
ALJ NEWMARK: Fenrick 1.
MS. LOEHR:
Q You have what's been marked as Exhibit WPS Fenrick 1 in front of you. Can you tell me what this is?
A This is a white paper I co-authored with an engineer at our company looking at reliability driven projects and how to evaluate them.
Q And if you turn to page 4 in the paper, is that an example of cost/benefit ratio, hypothetical cost/benefit ratios that could be examined for discrete alternative projects to a proposal?
A Yes, it is.
Q And in your view if the benefits of a cost -- or the

benefits of a project exceeded the cost, that made it a viable alternative at least one not to be immediately rejected?

A Yes. Obviously, that's the kind of screening criteria that you like to use as far as do the benefits exceed the cost. Obviously, there are other constraints that utilities face as far as budget funding constraints. Also, can you implement the project, but that would be kind of a screening process.

MS. LOEHR: Okay. Move admission of Exhibit Fenrick 1.

ALJ NEWMARK: Any objections?

Okay. It's in.

MS. LOEHR: That's all I have. Thanks.

ALJ NEWMARK: Commission staff.

MR. VARDA: No questions.

EXAMINATION by ALJ NEWMARK

Q I had just one question. Start off with one. Do you agree with Dr. Kaufmann's testimony?

A Yes. Obviously, I haven't done the calculations that he has done, but in general customers put a value which tends to be a rather large value on reliable service, and so his estimations appear, if nothing else, fairly conservative to me.

Q You're familiar with the LBL study?
A I am. I believe in the white paper it's cited.
Q You agree with its findings and analysis as well?
A In general, although I would state this kind of research we have done, I think the findings especially as pertains to residential customers are conservative. I believe those values are fairly low. Just, for instance, we're involved in a peak time rebate program where you give customers rebates for when they consume less power during peak events. You don't see customers reacting to those programs like you would if those dollar figures were the real ones. Kind of implies a larger value that people are putting on service and having reliable service, but in general, I do agree with the kind of methodology and putting value on the service.
Q And are there any updates since 2003? I think that's the date of the study.
A That particular study, I know there have been similar reports out. Dr. Kaufmann would probably be aware of the literature more than I would, but the last updates to the LBL that have been done, I am not exactly sure.
Q But you're aware of studies that use this methodology that have been produced after 2003?
A Yes.

Q Okay. Do you have any critique of the methodologies?
A In particular, no. There is always, always some question. Personally, I think they're conservative. That's sort of a critique, and then I was involved in a proceeding in Ontario where issues were brought up where the estimates that the utilities used in that proceeding were actually higher estimates than the LBL brought forth so there was discussion back and forth what the appropriate measurements are.
Q Okay. Did anyone propose using a different methodology than the study?
A Ultimately, no. Kind of came up with a proposal to do a different study that I am aware of.

ALJ NEWMARK: Thanks. Redirect.

Go ahead.

MS. LOEHR:

Q Sorry. Just following up.

The LBL study is actually a compilation of studies, correct?
A Correct.
Q A single methodology did not permeate across all six studies?
A Six studies.
Q With respect to residential I believe there were six studies that were aggregated for residential customers in

the LBL study?

A Okay. I'm actually not -- I haven't refreshed my memory. It's been a while since I read that report. I kind of don't fully remember the particulars of the studies whether they have the same method.

Q When you were talking with Judge Newmark right now about a particular methodology, you don't really know what methodology was used in the LBL study?

A In particular, I know survey instruments at the different utilities, and as Dr. Kaufmann said, EPRI formed the handbook. Anything further on that? No, I am not aware of the particulars of the study.

Q You don't know of regional differences or emphasis on technical geographic regions?

A I do know in the model recited, a model will have different regions specified.

Q Do you know if the underlying studies came from the same or from particular regions?

A I would assume those models were formed by the different surveys. I am not an expert on the LBL report. It's been a while since I reviewed it.

MS. LOEHR: Okay. Thank you.

ALJ NEWMARK: Redirect.

MR. POTTS: No.

ALJ NEWMARK: Okay. Thanks. You're excused.

(Witness excused)

ALJ NEWMARK: Okay. Anything else from the company?

MR. JACKSON: I don't think so, no.

ALJ NEWMARK: So I believe it's Mr. Hahn's turn. We're going to need his phone number.

(Discussion off the record)

RICHARD HAHN

being first duly sworn, testified as follows:

WITNESS: I do.

ALJ NEWMARK: Okay. Your witness.

EXAMINATION by MS. LOEHR

Q Mr. Hahn, did you prepare direct and surrebuttal testimony and Exhibit CUB Hahn 1 in this proceeding?

A Yes.

Q And is the information therein true and correct to the best of your knowledge?

A Yes, it is.

Q Have you also had an opportunity to review the sur-surrebuttal testimony of the company?

A Yes. If you're referring to the testimony that came in

late yesterday afternoon I did have a chance to read it.

Q Thank you, and turning to Mr. Schott's sur-surrebuttal testimony, do you have any comments you would like to make on that?

A Yes, just two points based on the limited review time that I have had. Mr. Schott is critical of my statement that spending 7,277 dollars of capital investment per affected customer to reduce annual outages by 20 hours per year is a proper way to look at this particular project. Mr. Schott's O&M savings we found out today are 1,037,000 dollars per year.

My comment is if you're doing O&M savings, you should consider other ongoing costs such as the revenue requirements that would be produced by such an investment and ultimately charged to customers, and if you assume those revenue requirements and O&M savings of a million dollars which works out to about $32.67 per customer per year and then calculate the revenue requirements using a traditional utility revenue requirements model, sum of the revenue requirements over the life of the asset arises to more than 33,000 dollars.

So that's what customers would pay to reduce outages by 20 hours a year or somewhere between 1000-1200 hours over the life of the project. I think the question is valid as it were to spend this kind of money to avoid

that level of an outage. As I testified, I believe it is, but despite that being my opinion of high cost, I actually do recommend that the Commission approve the Certificate of Authority for the first year, extend the schedule from five years to ten years, have the company provide a thorough evaluation of alternatives before proceeding with the second year program. So the fact this is in my opinion a high cost, didn't really cause me to say, hey, don't do this.

The second point, Mr. Schott revises his estimate of the customers affected by the SMRP to 130,000 from 160,000. I still don't completely understand how that number is derived, but in any event, it does seem high to me. But I will note that whatever assumption you assume whether it's 160,000, 130,000 or 30,000, it doesn't change my opinion.

Q And did you also have a chance to review Mr. Derricks' sur-surrebuttal testimony?

A I did, and Mr. Derricks -- if I could get a copy of it. Mr. Derricks provides an expanded rate analysis for the years 2014 to the year 2024 for both the five-year implementation and ten-year implementation. I am referring to page 2 of Mr. Derricks' sur-surrebuttal testimony, and I haven't had time to review this. Even if I accept the numbers in this table on this page at

face value, if you simply sum the numbers over that 11-year period, they are 44 percent higher with the five-year implementation than they are with the ten-year implementation. Really makes the point I was trying to make, five-year implementation has higher rates attached.

Q And turning now to Mr. Fenrick's sur-surrebuttal testimony, did you have a chance to review that?

A I did. I guess I noted Mr. Fenrick clarifies he was using a different definition of capital cost than I was. Still have not had an opportunity, given the time constraints, to review the statistical analysis but, again, my agreement or disagreement with Mr. Fenrick does not change my opinion that the SMRP has high cost, but despite this, I do recommend the Commission approve this with conditions.

Q And, finally, Mr. Kaufmann's sur-surrebuttal testimony?

A Similar comment, there is more here than I had time to look at and review so I really hadn't had a chance to review it and analyze. Again, I disagree with Mr. Kaufmann, but our agreement or disagreement on whatever value is chosen was not central to my recommendations I made in this proceeding.

Q But you do believe the value is high?

A Oh, yes. You're referring to the $12.22 per --

Q Kilowatt hour.

A -- kilowatt hour for the cost of an unserved kilowatt hour, yeah, I do believe that's high.

MS. LOEHR: Okay. Thank you. Mr. Hahn is available for cross.

EXAMINATION by MR. POTTS

Q Good afternoon, Mr. Hahn. Can you hear me okay?

A Yes, I can, sir.

Q This is Brian Potts. I represent Wisconsin Public Service Corporation. I just have a few questions for you. If at any time you can't hear me, please let me know. I will try to repeat it more loudly.

Just to start out, I guess in response to some of the testimony you just gave, since it appears to be your testimony you think the cost of this project is high and that the company should evaluate alternatives further. What drives you to the conclusion that the PSC should approve the project on a longer time line? What is the basis of that?

A Well, I think there are some elements of the company's filing that I would agree with. I stated them in my direct testimony, but I will try to summarize them here. I mean the company has provided data that shows it has the highest reliability statistics in the state. Some of that may be because of the greater percentage of densely

forested areas and less populated areas, but in general I think the company does have a reliability need that should be addressed.

So I don't want to put myself in a position to say, gee, don't improve your reliability. On the other hand, I do think that 220-, 218 million dollars plus some AFDUC is a lot of money and they should be able to do a thorough evaluation of all the alternatives to the same level that the company's preferred alternative was evaluated. It really had two approaches. I did not want to make a recommendation to CUB, hey, reject the Certificate of Authority because I do see a need. The question in my mind is, is this the best solution and is this the right implementation plan so I offered alternative opinions on that.

Q If I could turn your attention to page 12 of your direct testimony --

A I think I have it.

Q And specifically I'm talking about lines 12 through 15. In that testimony, you indicate that the company's 75 percent improvement in the SMRP area may actually be conservative.

A Yes, sir, that language is there.

Q What percentage improvement would you expect from the project?

A I have not done an independent assessment, looked at the company's values, and as I note here the company has assumed that all of the circuits where segments are undergrounded, that they have assumed that all of the outages from overheads go away. They're not replaced by any outages that may be due to undergrounding although they may be less frequent. I have not done an independent assessment. I have accepted what the company has offered in terms of a 75 percent reduction in SAIDI minutes in this particular area of their territory.

I have no reason to reject that at this point. I will note that it's fairly unusual to have an underground project of this magnitude, of this dollar value relative to the size of WPS so I don't know there's a lot of comparisons that would be informative in comparing it to other utility projects.

Q Thanks. Can you turn to page -- I guess I am going out of order here -- page 8 of your testimony. Again, I'm talking about your direct testimony.

A Page 8 of my direct. I believe I have it.

Q And you have calculated a cost per minute of outage reduced of 2.6 million per minute on lines 21 through 23. Do you see that?

A Yes, sir.

Q Could you just explain how you did that calculation?

A If you take the 224 million -- 222 million dollar capital cost and divide that by 84 minutes, you get something a little higher than 2.6 million dollars per minute.

Q Just so we're clear, the 2.6 million dollar figure is the cost to reduce the company's SAIDI figure by one minute -- the company's capital cost to reduce the SAIDI figure by one minute. Is that correct?

A That's correct.

Q And you state this seems like an extraordinarily high figure in the next line. Compared to what?

A Just the 84 minutes is sort of a system average per customer. So as I said, I am not aware of any projects that would -- that you could pick from another utility to say, gee, this utility XYZ out in California did a similar undergrounding and here is what their cost is. I think this project is fairly unique in that regard. Just looking 2.6 million per minute of SAIDI reduced on its face seems like a very high value.

Q I'm assuming based on the testimony you just gave you haven't performed a calculation like this before in another proceeding?

A I'm trying to think. In some of the cases in Massachusettes where we looked at utilities' proposed plans to upgrade the system, they did provide -- I recall they provided an estimate of the minutes. I don't recall

what the values were. I don't know if I actually did the division, but there were costs and estimates of savings.

Q Do you have an opinion as to how much it should cost to improve the SAIDI of an electric utility system by one minute?

A I think that value is highly dependent on the situation, and quite frankly, that's why I think you need to look more closely at some of the alternatives. Let's say there was a lesser alternative that cost, you know, 111 million but produced 70 minutes reduction in SAIDI. That would have a much lower value. You might find that alternative to be superior. Unless you actually do that comparison, it's hard to judge.

Q Can I turn your attention to page 23 of your testimony?

A Is this the direct, Mr. Potts?

Q Yes, the direct testimony.

A I have it.

Q Just find the line numbers for you.

Maybe you can help me. You state you strongly oppose the scenario where SMRP costs are allocated only for residential customers but clearly small commercial customers will also benefit?

A Line 3 through 5 on page 23.

Q Have you calculated approximately how many small commercial customers will benefit from the SMRP project?

A At a high level as you will see elsewhere in my testimony, I did calculate a number. It was 30,800, but that was based strictly on the fact that the company stated there was 7 percent of its circuits were being -- circuit miles were being upgraded and they had 440,000 customers. So that was an estimate -- high level estimate that I developed for the number of customers affected. I note that in this part of the company service territory the customer population density is lower than elsewhere so it might actually be less than that. That calculation was just based on a ratio of circuit miles.

Q And just to clarify I guess my question was, have you calculated approximately how many small commercial customers would benefit from SMRP and I think you were referring to your calculation of total customers?

A Well, I haven't, but in looking at the company's customer data from FERC Form 1, the actual number of large industrial and other type customers in terms of number of customers is a relatively small percentage. I wouldn't think it would be significantly lower than the 30,000.

Q Do you know what approximate percentage of WPS's total kilowatt hour sales are to small commercial customers?

A I don't know that figure off the top of my head, but I did look at it when I gathered the data on customers.

I want to say residential customers were close to half but that may not be a correct number.

Q In your direct testimony, again, on page 23, you asked the Commission to require WPS to provide more comprehensive project monitoring plans.

A Yes.

Q In the company's rebuttal they offered to provide detailed monitoring plans. I am just trying to clarify the record. Do you believe the company's proposal as to the monitoring plans in its rebuttal is sufficient?

A As I sit here today, I do not recall those details. I guess if they comport with what I am illustrating here, I would say it's fine. If not, then I think it should comport with what I have written here.

Q I guess just to ensure that the record is clear, let me turn your attention to the company's rebuttal on this point.

A Which witness, Mr. Potts?

Q That's a good question. I believe it's Mr. Peterson.

A This is the rebuttal testimony?

Q Of Mr. Peterson, either Peterson or Schott. Yeah, I believe it's Peterson on page 4 starting on line 9 through 24.

Would you take a minute and review that and then answer the question I asked you again about whether that

is sufficient from your standpoint?

A I will certainly try.

So you're proposing five things.

Q I believe there are six actually.

A Oh, yes. You know, Mr. Potts, at a high level it seems to cover the same things, but I have not done a detailed comparison. I guess I would probably need some time to do that.

Q Okay. If I turn your attention to page 26 of your direct testimony, you also state that, quote, "The continuation of SMRP should be contingent on Commission approval," and I think what you're referring to there is the annual reports that you've asked WPS to file. Is that correct?

A Yes.

Q And do you mean WPS would need to seek and receive affirmative approval of each year's plan before being able to go forward with the project or would you be okay with the company filing the plan and if the Commission does not notify the company of any concerns within a certain time period the company can proceed?

A Well, you know, in an ideal world, the report would be filed. The parties, including staff, have a chance to look at it and then offer an opinion as to whether it is useful going forward. Whether that happens in the positive or the negative, I just think it's important to

have some kind of a call it gut check halfway through here or maybe periodically such as annual. If the project costs are coming well above what the company expects, they would be -- if the estimated reliability benefits are coming in considerably less, I think there ought to be some relook at this. In an ideal world, that would involve Commission approval. I would have to consult with CUB to find out if the other alternative which is a -- we have the approval unless somebody reigns us in whether that can actually work. I think that's more a legal logistic question, but the intent of both would be the same.

Q You agree if there was formal approval required, in your words affirmative approval required every year that could hinder WPS's ability to enter into a forward looking contract with contractors, isn't that right?

A Well, no, I am not sure. I guess the question is when WPS goes out and contracts for external line crews to do underground work, do they issue a contract longer than a year? I don't think they necessarily have to. So it isn't clear to me that would hinder the company.

I haven't seen any compelling reason why turning to the five-year contract for craft labor would produce any different results than a one year contract.

Q If it's the company's testimony it would drive up the

cost, do you have any reason to dispute that?

A I guess I am not sure I understand the basis for it so I'm not sure I can dispute or accept it. The question I would ask is how often do you issue multi-year contracts for the craft labor that you hire even if the SMRP had never been conceived. My experience is most utilities will do a year and renew it through competitive bidding to get a better price.

Q Turning to your surrebuttal, you state that your primary reason for wanting a ten-year time line instead of a five-year time line is help alleviate the large rate impact on the SMRP recommendation. Is that right?

A Yes, I placed the emphasis on primary because in my direct testimony I do mention the project scale and the scope of the construction as well but, obviously, that statement is in my testimony.

Q And I believe you testified earlier that you have reviewed Mr. Derricks' calculations of rate impact in his sur-surrebuttal between the five-year time line and the ten-year time line?

A No, I actually said I didn't review it. I accepted it based on face value. Those calculations came in to my office yesterday as I was leaving.

Q I mean by review it you read it?

A I read it, and in doing my oral sur-surrebuttal here

today, I stated I accepted those at face value, but I can't say I reviewed them.

Q And you testified a minute ago I guess I was a little confused about adding up the revenue requirements over those ten years.

A No, that's not accurate.

Q Okay. When you testified that something was 44 percent higher, could you describe again what you were discussing?

A Sure. That has nothing to do with Mr. Derricks' testimony though. It has to do I offered that calculation or description of that calculation earlier today in response to Mr. Schott's testimony. Basically, what happens is if you invest 7227 dollars which is a per customer figure assuming 30,800 customers affected, you calculate a revenue requirement. The way most utilities do it, you're going to calculate a rate base each year. You're going to calculate grossed up return for income taxes. You're going to add O&M costs which in this case are negative as I discussed. There might be other things like property taxes, whatever the components of a normal revenue requirement are.

If you do that over the life of the SMRP which is by someone's testimony 50 to 60 years, you calculate a revenue requirement. You can make that sum, but that's

independent of anything that Mr. Derricks has offered.
Q I guess my question was more specific to the table on page 2 of Mr. Derricks' sur-surrebuttal testimony which calculated, at least according to his calculation methodology the revenue requirement impact of SMRP if it's done over five years versus ten years, and I thought it was your testimony earlier when responding to Ms. Loehr that you had added up the revenue requirements for the ten years and compared them to the revenue requirements for the five years and determined it was 44 percent higher. Is that correct?
A No, it was not the revenue requirement. It's the dollars per month increment.
Q I see. Okay.
A In the five-year case, the column begins with 45 cents and increases in 2019 to $4.34 and declines to $3.45. If you sum those 11 figures, then under the ten-year program sum the same 11 figures which is an estimate as I understand this table of what customers, the incremental amount that customers will pay under these two implementation plans, a five-year plan over this time period is 44 percent higher than the ten-year plan.
Q So the dollar per month that you were talking about I believe those numbers are cumulative, isn't that right?
A I don't know. As I said, I just take this at face value,

took these numbers at face value. I have not had a chance to study this so I can't tell you what's in them.

Q Just to clarify again, could you please -- okay, never mind -- strike that.

One question I did have about this table, this only goes through 2024. Isn't that right?

A That's correct.

Q And after 2024, well, you can see sort of in the year 2024 the ten-year dollar per month figure is actually above the five-year dollar per month figure. Isn't that right?

A Sorry, which year are you referring to?

Q In 2024.

A Okay. You mean the 3.45 versus 3.63?

Q Yes, exactly.

A Right, and then in 2019 it's 4.34 versus 2.30. So I think if your question is, has it crossed over, the answer is that may be but I have not seen the rest of this table so I don't know.

And to your earlier question, it looks to me like the first year revenue requirement is 3 million. That's going to be based on some investment and so the first year the customer pays 45 cents per month on average and then the second year now your revenue requirement is higher because you invested not only 2014 investment plus

your 2015 but the amount they're going to pay is $1.37. So you said this was cumulative, but I interpret this table to mean this is what customers will actually pay each of those years.

Q Is it not possible that $1.37 means in 2015 it is $1.37 higher than current rates?

A In that year, yes.

Which is what you're trying to estimate. You're trying to estimate how much more customers are going to pay due to the SMRP with the five-year implementation.

Q Now, we have been talking about what the rate impact might be with the different five-year and ten-year time line. On the benefit side, doubling the project time line would also double the time line the customer would have to wait to see the full SMRP reliability improvements. Isn't that right?

A Yes, if you implemented the project over ten years, your reduction in SAIDI would not occur until ten years, but that's the balance between cost and reliability improvement that I was referring to in my prefiled testimony. This problem seems to have existed for a long time so it may be more appropriate to -- and the other thing I will note, I did not see a lot of complaints of customers in this area.

Based on the data that was provided to me, it may

very well be that customers living in densely forested, sparsely populated areas might expect to have more outages. That would not surprise me, but at some point you have to decide where is the balance point between cost and benefits, and I believe that a ten-year plan will provide a better balance between those two parameters.

Q On page 4 of your surrebuttal, you calculate the one-time cost for the affected customer to be $1391 dollars to reduce a customer's average annual outages by 3.9 hours, correct?

A Page 4, yes, sir, I have it.

Q And you calculated the one-time cost for the affected customer to be $1391 to reduce the customer's annual outages by 3.9 hours?

A Well, that assumes that the number of customers that are affected here is 160,000 which we know is no longer correct, but that's the assumption that was made here.

Q Okay, and that 3.9 hours per year would occur over the life of the project every year. Isn't that right?

A Correct.

Q So in --

A That's why I tried to respond to the comment by Mr. Schott that these O&M savings I tried to factor into the analysis which I talked about earlier today.

Q And your figure, your $1391 figure I understand you used as a different affected customer number that is now in the record, but in any event, that figure does not account for the fact that the project cost will be spread among all of WPS's residential customers, not just the ones that are directly affected. Isn't that right?
A Right. Yes, that's correct. This analysis on page 4 is not a cost recovery analysis. It's an impact analysis of the project.
Q And you have not accounted for the O&M savings to the company associated with the project in this calculation also. Is that right?
A Not here, but in my oral sur-surrebuttal today I did.
Q And you would agree there would also be an addition to the outage savings as aesthetic benefit to many of the customers that live in these areas?
A Excuse me, I didn't hear the question.
Q I'm sorry. Do you agree there will also be an addition to the recouped outage time an aesthetic benefit to many of the customers that live in these areas?
A You mean aesthetic meaning better looking?
Q Yes.
A So your question is would people find their views better if cables were put underground? I don't know the answer to that. I don't believe there has been a customer

survey to determine that.

Q So it's your testimony that a residential ratepayer in northern Wisconsin would not be willing to pay 1391 dollars spread out over the next 20 or so years to avoid four outages a year for the next 40 to 60 years?

A Again, if you factor in the full impact of that, either the 1391 or the 7227 which, as I stated earlier, would include considering the full revenue requirement impact, I am not sure they would. Seems to me like a very high number. I didn't think anyone has ever asked the customers whether they would be willing to pay for it for better, for worse. I don't pay a Wisconsin electric bill, but in my opinion, it's a big number.

Q And you keep bringing up the 7,227 dollar figure. That figure is your calculation done basically taking the capital cost of the project and dividing it by only the property owners that are directly connected to the segments that would be undergrounded. Is that correct?

A Well, not exactly. You're upgrading 7 percent of the circuits. That's 7 percent of your customers. Whether every one of those customers is connected to an underground circuit, I did not get to that level of granular.

The only thing I want to point out here, we have a range of potential assumptions about how many customers

are affected.

You had an original estimate of 160,000 and high level estimated 30,000. I am saying whatever number you use or any number between those ranges I think you're going to get fairly high capital cost relative to the number of hours of outage reduction. So what happens, you have a fewer number of customers, your cost per customer goes up, but the 37 million minutes in SAIDI that you're going to reduce is done over a lower number of customers. So the amount each of those customer outages goes down by goes up still. They both go up.

Q I just have one more line of questioning. You testified in your surrebuttal that Mr. Kaufmann calculated cost of unserved energy is too high, and then on page 11 of your surrebuttal testimony you testify that if the cost of unserved energy due to outages were truly as high as Mr. Kaufmann has calculated, the company should have acted sooner. Is that your testimony?

A Yeah, that's on page 11, lines 7 through 8.

Q Just so I understand your testimony, you're saying if the Commission agrees with Mr. Kaufmann's calculation of the cost of unserved energy, then it should approve the project on a five-year time line. Is that right?

A No, I don't agree with that statement. This statement here is a hypothetical.

Q Right, and that hypothetical you were saying if the cost of unserved energy due to outages was truly as Mr. Kaufmann has calculated, the company should have acted sooner than it is acting now. But isn't the direct correlation of that if the Commission agrees with Mr. Kaufmann's calculation it should approve the project as soon as possible and on the company's time line?

A No, absolutely not. I mean, the Commission -- this is strictly a hypothetical. The Commission could find that regardless what they think about Mr. Kaufmann's number, whether it's too high or too low, they could approve the project. They could approve the project with a different implementation schedule. They could make the decision to balance the rate impacts which are independent of Mr. Kaufmann's calculation versus the reduction in SAIDI. Even if the company -- or if the company does this project and they eventually complete it, whether it's five years or ten years, if you look at -- the company is still going to have very high outage statistics relative to the rest of the state. So I am not sure I can follow your leap of logic to say from this sentence if the Commission buys into Mr. Kaufmann's number, they should automatically approve the company's project on the company's schedule. I can't support that.

MR. POTTS: I have no further questions.

ALJ NEWMARK: Okay. Commission staff.

EXAMINATION by MR. VARDA

Q Mr. Hahn, my name is Mike Varda, and I am Assistant General Counsel here representing the staff.

I understand you're here as a witness on behalf of the Citizens Utility Board. I wanted to get some information regarding the scope of your testimony here.

Would I believe correct in understanding that you are not testifying here that there are conservation measures that Wisconsin Public Service should have been taking in lieu of this proposed distribution network upgrade and installation of distribution automation?

A If your question is, is it my opinion the company should have engaged and invested more than they did in energy efficiency as a solution to a reliability problem, is that your question?

Q No, are there specific conservation measures -- now, if you're translating that as energy-efficiency measures as well, then consider the question as including that. Are you testifying that there are such measures out there it should have been taking in lieu of this proposed CA project?

A Would you say conservation -- may be you can help me understand that term that appears to be the difference in

my understanding. Are you saying each customer using less electricity?

Q Correct, taken in the sense of avoiding the use while energy-efficiency would be in terms of using electricity more effectively, more work product for the energy consumed?

A I don't believe I testified that the company should have used conservation as a solution.

Q Does any of your testimony here today go to whether or not particular corridor practices with respect to routing any of this proposed reconstruction is a concern for you?

A I did not address that in my testimony. That was not within the scope. The scope of my assignment was listed on page 3 and 4 of my direct testimony. So my assumption is that WPS will select corridors as they deem appropriate and they will negate any environmental issues that arise or switch to another corridor. I did not specifically address that within the scope of my testimony.

Q Going to pages 8 and 9 of your direct testimony, lines 30 to 31, at the bottom of page 8 you indicated that the average investment by WPS in 2009, '10 and '11 was just above 25 million dollars per year.

You would grant those particular years are affected by the great recession and it would be difficult

to sort out what reduction in plant additions might have to be attributed to the recessionary impacts. Would you agree with that?

A I would agree it's possible that a recession could have reduced the need for new customer connections and therefore eliminated the capital spending on that part, but that's generally a pretty small part of the utility's capital. I heard testimony earlier customer growth is like one percent whereas utilities are constantly upgrading distribution circuits and make investments every year whether the economy grows or not.

To your point, I did not estimate what part of that 25 million was due to the economy. I did not do that.

Q In terms of all the analyses you have seen here in this testimony and what you produced, you did not consider the effect that reduced outages might encourage more relocations to the rural areas of WPS's service territory and in turn encourage more year round consumption of electricity to the benefit of the revenue flow of WPS?

A I did not exam that.

Q So --

A Again, that was not within my scope.

Q Right. You would not deny the reduction of outages and given the particular character of WPS territory with

resort areas and retirement cabins if there is good reliable electric service installed there could be a stimulative effect for more year round usage of those facilities and in turn more electric consumption?

ALJ NEWMARK: I am going to interrupt. Is that in the record the nature of the service territory that we're dealing with?

MR. VARDA: We're talking about rural and --

ALJ NEWMARK: But year round.

MR. VARDA: No, I am asking --

ALJ NEWMARK: But has it been established there are seasonal residences and what is the majority, is that prevalent of residences and commercial or commercial businesses in the territory?

MR. VARDA: I put it in a hypothetical.

ALJ NEWMARK: I want to get that on the record, but I don't -- it may be in there somewhere. That was going to be my question but --

MR. POTTS: Generally may be in the application. Certainly where the segments are located for 2014 is in the application. The general nature of northern Wisconsin, I am not sure about.

MR. VARDA: The four pilot projects in the application described these territories as clearly within the expertise of anyone in Wisconsin, matter of fact,

would see the rural resort, cabin up north kind of territories that are being served.

ALJ NEWMARK: Okay. So we will just assume that's true for purposes of this question, but I want to get back to that. Just wanted to make sure we're saving that for later. You want to read back that question.

MR. VARDA: Please.

(Last question read back by the reporter)

WITNESS: I don't deny such a possibility. I also don't have any data to assess whether it's likely to occur or not. People move to places for lots of different reasons. Electric reliability for the most part is pretty far down the list. People might move to northern Wisconsin because they like the outdoors. They like the lack of crowds. You might not move there if you thought employment was not as good in other parts of the state. The answer is I don't deny it, but I can't affirm it.

MR. VARDA: Your Honor, for the record I would like to point out page 19 of Exhibit 1, 2012 pilot project noted the following criteria -- permanent homes and cabins served with electrical service.

ALJ NEWMARK: Okay. Thanks.

MR. VARDA: I have no further questions.

ALJ NEWMARK:

Q Okay. Well, Mr. Hahn, I am going to venture out on a limb here. In your review of the record, did you encounter data that dealt with the nature of the service territory that's the subject of this project and whether its -- whether there is seasonal customers or seasonal commercial, small commercial customers might be of a seasonal nature or that residences may not be occupied during the -- only occupied on weekends, something like that in that realm?

A I do not recall seeing any data that talked about either seasonal customers or weekend customers.

Q Okay, and would that -- would that information be useful in your analysis?

A Well, I think, yes. I think to the extent that -- in my view a seasonal customer is more likely to tolerate a higher level of outages than a year round customer because you're especially if you travel to northern Wisconsin to be in the wild outdoors, that's part of the adventure of roughing it. So I think that might be an important determination, but I did not see any data in the filing that would allow me to make that distinction.

Q Would a seasonal customer or weekend customer, is it possible -- are you there?

A Yes.

Q Okay. Would you agree that they would -- it's likely

that they would experience less outages?

A Well, sure, because they're not there five days a week, they're not there six months of the year, whatever the season, yeah. I mean, if you're not there and the lights go out, I suppose the lights go out in the wintertime and you have a thermal monitor on your heating system you might get a notification. If you winterize the place and you've gone back to southern Wisconsin for the winter then you would never know.

ALJ NEWMARK: All right. Thanks.

Okay. Any other questions on cross? Redirect.

MS. LOEHR: No, your Honor.

ALJ NEWMARK: Okay, sir, you're excused. Thanks for your participation.

WITNESS: Judge Newmark, thank you very much. Have a good day.

(Witness excused)

MR. JACKSON: If the lights go out and you're not there, does it really happen?

ALJ NEWMARK: Let's go off the record.

(Discussion off the record)

ALJ NEWMARK: Let's get back on the record. Should we call Mr. Schott again?

You're still under oath.

STEVEN SCHOTT

previously sworn, was recalled, and testified further as follows:

ALJ NEWMARK: You want me to ask?

MR. POTTS: Sure.

EXAMINATION by ALJ NEWMARK

Q Mr. Schott, we just discussed -- you were in the room -- that we would like to get a description of the service territory, the nature of the customer base in the service territory whether they're seasonal or weekend customers in terms of residential, small commercial and can you give us kind of a general idea of what the service territory looks like in that sense?

A Sure. First of all, there is an increasing number of permanent homes all the time with new construction going on and some of the weekend places may be rebuilt as larger permanent homes. We see that number increasing. I don't have a specific number of the quantity I guess of the number that would be considered weekend homes or seasonal. We would have the seasonal -- number of seasonal customers identified in a rate that I think CUB did get in response to an interrogatory. I don't have that number in front of me, but in general the weekend

customers or seasonal customers would consume very small portion of the kilowatt hours because, obviously, they're not there as much as the permanent homes. There is also small commercial places, resorts, gas stations, tourist type places in the northern region as well.

Q And do you know if that fact was considered in terms of weighing or analyzing the benefit of the project?

A They were counted regardless of the type of service they had as one customer for each meter.

ALJ NEWMARK:. All right. Thanks.

Any other questions? Redirect?

No? Okay. Thanks very much.

(Witness excused)

ALJ NEWMARK: All right. So I think we're on Commission staff, and let's just note, Mr. Singletary submitted an affidavit under the understanding there would be no cross questions for him. Hopefully, that's still the case.

MR. VARDA: I would understand his testimony and exhibit are admitted into the record.

ALJ NEWMARK: Yes, they're on the list. They're entered.

JAMES LEPINSKI

being first duly sworn, testified as follows:

WITNESS: I do.

EXAMINATION by MR. VARDA

Q Mr. Lepinski, would you please give your name and occupation for the record?

A Jim Lepinski. I am an Engineer for the Commission. Also I was docket coordinator for this project.

Q Have you caused your testimony here today to be reduced to a 17-page document consisting of questions and your answers thereto and would you verify that the answers you give there are today still unchanged when originally submitted?

A Yes.

Q Okay. Did you also prepare certain exhibits and could you briefly identify them and any future exhibits to come?

A I think they're listed at the beginning of my testimony. Do you want me to read them off?

Q Just identify those that were submitted here and those which will be delayed exhibits?

A Delayed exhibits will be numbers 5 and 8.

1, 2, 3, 4, 6 and 7 are already filed.

Q Are there any changes or corrections you wish to make

with respect to your filed exhibits?

A No.

Q And is the information in them still true and correct as of today?

A Yes.

MR. VARDA: I would move the testimony and exhibits into the record and tender the witness for cross-examination.

ALJ NEWMARK: They're already on the record. Any questions?

MR. POTTS: No.

MS. LOEHR: No.

ALJ NEWMARK: All right. Thanks. You're excused.

(Witness excused)

All right. Let's get off the record.

(Discussion off the record)

ALJ NEWMARK: Let's get on the record.

We'll have simultaneous briefs. Initial briefs will be due May 30 at noon and reply, June 7 at noon.

We're assuming a two-week turnaround for the transcript of the hearing. So anything else?

No. All right. Thanks very much.

We're adjourned.

(Hearing adjourned)

aff/May 21, 2013

PUBLIC SERVICE COMMISSION OF WISCONSIN

Docket No. 6690-CE-198

Volume 3

I, Adela F. Felic, hereby certify that, as an official reporter for the Public Service Commission of Wisconsin, I took down the testimony and proceedings had before the Commission in the foregoing matter on the 7th day of May, 2013, and that the attached is a true and correct transcription of the said notes and of the whole thereof.

Adela F. Felic

Reporter
PUBLIC SERVICE COMMISSION OF WISCONSIN