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Electric Reliability Workshop
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Attendees:
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VP: Welcome, overview of packet, ground rules, agenda, introductions.

MA: [First agenda item - Agreement on Basic Terms] I don't know how long it will take here, it may take a little while. I'd like to take the time to go through this in a fair amount of detail, which is to talk about terms and the definitions of terms that we would like to use in the discussion we have today and in the future about sustained interruptions. Over the past couple of years I have gone to each of the utilities and to some conferences and heard terms used and generally speaking thought I understood the

definition of a term and then find out at some later time there's a twist or there's something different about the meaning of the term. The agenda title is "agreement of terms." I don't know that we have to come to agreement, but at least if we understand if one utility means something different than what others mean, then we at least will have that knowledge as we continue our discussion. To the degree that we can come to agreement on terms I think it would be helpful as we continue to discuss this issue. If at some point - and we have not decided to take any action in this area at all and we have not decided that if we do take any action as a Commission that it's going to be a rule versus something else - but if we do take any kind of action we probably will need to define our terms in the process of drawing up whatever document or documents that would be reflected by that action. So we are talking at the very get go here about what terms mean. To the degree that we can agree on terms early on I think it will not only facilitate the discussion but it would allow us to put together a more meaningful document in the long run - document or documents - if the Commission decides to take any action. In deference to the industry we are proposing to use the definitions that IEEE (Institute for Electrical and Electronics Engineers) has put together. It doesn't mean we need to agree on these definitions but we thought we would use these definitions as a starting point. I do not have copies of the standard to pass out. Some of you may have the standard. We contacted the intellectual property rights folks at IEEE and they wanted $15 per copy when we said we wanted 50 to 100 copies and so we decided to get 15 and they told us they would be $25 a copy. We finally decided to make one copy and to take some of the terms and definitions and put them in an order that made more sense to us and copy them onto an overhead. So I'm going to lead this discussion from the overhead and if you have the standard, great, if not, you can take notes and we can tell you later where you can get a copy of the standard. We are not proposing, by the way, anything about adopting the standard ourselves. We wanted to start here and discuss some terms. Not every term that will be on this list is necessarily going to be pertinent to our discussion today. But I think we'll go through it and we can see what the importance is and what the definitions are. We will, by the way, be discussing the definition of sustained interruptions which is one of the terms that is in the standard and is also the subject of the meeting that we have today. (turned on overhead).

The following terms and definitions are from the Institute of Electrical and Electronics Engineers Incorporated, Standard 1366-1998 IEEE Trial Use Guide for Electric Power Distribution Reliability Indices. Some of this may be a little bit boring and we can move over it quickly. Other aspects I think will be more interesting. The first term is "Reporting Period" and if you'll see the number next to it is 3.17; that means that's its number and it's location in the actual standard. I put that in here so if you have a standard with you and you want to flip to where it says this in the standard, you can find it. "A period assumed to be one year, unless otherwise stated," that really doesn't define what the reporting period is. I don't know that we need to. My understanding is if you are tracking any reliability statistics or indices you need to have a period in which those

numbers and statistics are tracked and that is what the reporting period is and in the standard it's assumed to be one year unless otherwise stated. We're going to talk later about whether that's a good idea or not. Actually I have a question right away to start out with. For the electric companies when you report, if your assumption is reporting on a standard year, do you assume it's a calendar year, or a water year, or a fiscal year? I doubt that, but is there any reason it ought to be one or the other if we're going to do a reporting period of one year?

CR: We were actually thinking of the fiscal year, the one you didn't think people would be using and that coincides with our reporting that we're going to be doing for accounting and it was our view to keep all the reporting that we do in a similar way that we can keep our accounting information.

MS: For Puget SQI's we start with the month of September through October time frame. We do it on a monthly basis and we update the Commission every six months. But that gets into another question. When you make a comment about a reporting period, when you're dealing with averages you've got to be very careful when you go below the level of system to circuit level when you start doing switching and keeping track of it all. It gets to be a very nightmare arrangement of keeping track of which switches are open and which switches are off. Because those system averages, when you do it at a circuit level get to be an accounting nightmare. So, you could do this at the system level fairly easily. At the circuit level, the substation level it gets to be a lot harder.

MA: To do it on an annual basis is a lot harder?

MS: Monthly level or a yearly level. Averages don't work on the circuit level.

MA: OK. I think we will get into that later. Because I don't quite understand what you are saying.

MS: Mark, it's real simple. If you have 200 customers on a circuit in January, February, and March and you had 400 customers, now your averages don't work out for the rest of the year. Now you have 600 customers, 200 customers, and what do you do? Average all 600?

MA: Right. I understand what you're saying. Because of the potential changes to the circuit.

??: IEEE says to use the number of customers at the time you're trading the ....

MS: As a member of the committee, it was not agreed upon on how that was to be done.

MA: Somewhere I thought I read it said to use the total number of customers served. We'll

get to that in just a minute. Because it actually says "the total number of customers served on the last day of the reporting period." So at least for the development SAIDI, SAIFI and CAIDI and so forth.

MS: For a system average, Mark, I agree. But if you start looking at reporting on a circuit level it's a much different problem.

MA We've gotten really far here, quickly. Michael I appreciate that. That's very good to keep in mind. Anyone else a comment on reporting period? Let me just say at this point that, again, I don't think it's necessary that we agree, but understand what difference may occur.

The next term is "Customer Count: The number of customers or number of meters." According to the standard it says the number of customers is the preferred item to count if the counting system is not already in place. I have a question to raise there. I actually don't understand - and Michael, as someone on the committee you might - why customers is preferred for a couple of reasons. If you have meters, it seems to more accurately describe the system itself. For example, would Boeing be one customer, but Boeing might have 50 meters? Does anyone know why the standard might prefer customers? Does anyone have an opinion one way or the other about it? By the way, what do each of the electric companies do now?

MS: We at Puget Sound Energy use meters because that's a lot easier to keep track of. We relate customers to meters in a sense. You may have residents in a house that is different than customers. But you could have, say, a well pump or some other way it's being done. That meter is different than the residential meter or street light meters, or all sorts of other meters you could have. So, it's an easier thing to count customers. Excuse me, I meant meters. We count the meters and we then relate those to the customers that are there. But, we have a meter count and a customer count.

MA: So it's easier to count meters, but the meters don't always represent what you'd like them to represent because you might have a meter on a street light and that is a different animal than a meter on, say, a residential customer. So you want the number to be customers. What do you do with someone like, for example, I really don't know what the situation is with Boeing, but is that one customer, even if they represent a lot of meters?

MS: The way a standard, and this is kind of misleading the way this whole discussion is going, because it's leading towards SAIDI and SAIFI and CAIDI. But there are other, what I call indices, that you can use. One is a load-based one which is a lot more accurate for larger customers in commercial areas.

MA: I think that is the last term on the list.

GS: I have a question. What do you define a customer as then? What's the definition of a customer?

MS: We basically call it a meter related to a residence or a meter related to a business.

GS: Then the meter is the same as the customer?

MS: Yes, but on the flip side if it's a street light or it's a pump or something where somebody is not going to worry about it on a service, we don't count those.

??: What would you classify, for example you talked about the Boeing Company. Would each service to the Boeing Company be counted as a separate customer because it's billed separately?

MS: Correct

GS: So it's billing which is essentially a customer? That's your definition of a customer is whoever a bill goes to?

MS: Except for street lights and pumps.

GS: That would be the city or whoever?

MS: Right

GS: But the city would be one customer. But they might have a 1,000 meters, or whatever or 100 meters?

MS: Theoretically. But that's an approximation. It not really something you can go down to and say hey, how is it really done. If you were to argue about the number and go and say have you done a polygon around that used and gone back and looked at how those numbers are generated. Those numbers generated are an approximation of what they believe to be there. Because what the maps have to be up to date and the system has to be up to date and that's always an issue of how up to date all that stuff is.

ML: So the example, they're talking about Boeing, so Boeing is 50 customers?

MS: Right.

DT: If you look at the scenario a water well pump or a street light, it could be a sewage lift

station, it could be a water well pump, it still falls underneath reliability portion of this because even though that meter is not permanent there was a sewage pump that is out there. There's going to be some customers that are probably pretty upset.

MS: I agree with that but I think you, there's un-billed energy and billed energy and how that's done is another issue.

MA: If you have an emergency and you've lost some customers and you have a lot of these city-owned meters, they may effect lights, or as you said a sewage pump and so forth, how do those numbers get reflected in what you report, say either to the press when you say we've got X number of customers out and how does it get reported in your SAIDI and SAIFI which you report to the Commission?

MS: They're reflected as best and accurately as we can at the time. The question I think is how many of these meters are out there. If one was to go back and, usually what we infer is residential customers out of service is what we're talking about. And that's what people want to know. How many customers are affected by this storm. That's usually how many residents are out of service is what they're interested in. Businesses are another issue and if you look at downtown Bellevue that's one customer, that's one meter. There may be 2,000 people affected by that one meter. So, you've got this real dichotomy what you're trying to portray.

MA: You mean like offices with business folks in it or are you talking about an apartment?

MS: 2,000 office workers.

MA: So you might say in a press release that the whole of downtown Bellevue is out at the same time that you're saying that X number of customers are out and the customer numbers actually only reflect the residential customers and you've actually not included the...

MS: And that's why the IEEE had with it a lot of different what I call measurements of metrics that you could be looking at. And the load-based metrics really takes care of those commercial customers much better than the SAIDI, and SAIFI and CAIDI numbers.

MA: Let me say for anyone who might be listening on the bridge line or anyone here who does not know, we've used the terms SAIDI, SAIFI, and CAIDI. These are acronyms. They are indices that we probably will be discussing later in the day. We're obviously discussing them now. They actually don't come from the standard we are looking at, but they are included in the standard. They are concepts that have been around much longer than that. SAIFI stands for System Average Interruption Frequency Index, SAIDI stands

for System Average Interruption Duration Index, and those are indices attempting to measure the frequency of interruptions and the duration of interruptions. And CAIDI is the Customer Average Interruption Duration Index. Which I'm not going to try to explain because at the moment I think what it means is the duration of interruptions for customers who are actually interrupted. Do any of the other two electric companies - Michael has been sort of taking the lead here - have anything to say about meters versus customers and how you count? What would be in your SAIDI and SAIFI that you would report to the Commission?

GK: The count we use in terms of performance reporting is the number of meters. That's the definition we use. The number of customers can be calculated definitely for billing purposes from (?) reporting so we go by meters. We would not typically count un-metered supplies, for example street lights within the customer count unless there was a single meter point for a number of street lights.

MA: So you use meters but for the same situation if you had an outage and you were providing a number for customers out, is that usually the term that is used? You would be doing the same kind of thing that PSE is doing? Is that correct?

GK: It would be based on the number of meters off supply.

MA: Off supply to residential customers. You would not be including....

GK: If that included three meters to a Boeing site, that three would be included in that count.

MA: As three or one?

GK: Three

MA: As three. And if there were six different meters that were going to 200 different street lights would that be included at all?

GK: Six customers

MA: Six. Right. Six customers. If you have one meter on one street light does it get counted or you don't have a situation like that?

GK: That would not be metered.

MS: It would not be metered is what you're saying? But you might have in some areas pretty small loads on a single meter, I mean in a rural area. A water pump somewhere? But I suppose that's metered so as long as it's metered it's counted. If it's not metered it

doesn't get counted.

ML: We're in the process of designing a tracking system now and what we were planning on doing is counting each, what we call usage point, which could be multiple meters as one customer. So even a residential customer that may have two meters, they may have a separate meter for their garage and their house if it's at the same service address. That's one customer. So we're not really doing it per meter. For the I believe the case for the city that may have several meters throughout the city. Each one of those meters would be considered a separate customer. But the only time that we combine meters is when it's at the same service address, basically.

CR: Not the same billing address. Just the service address.

ML: The billing address you could have some landlord that owns apartments all over the city but it's at the service address where they're getting the power.

GS: Why is this important?

MA: After terms we're going to talk a little bit about what it is we're attempting to do here and why. The Commission is looking at whether or not we ought to have the various electric companies track and report on reliability on their system. And it may be in the same way or it may not.

GS: The general public, if you tell them there's 3,000 homes out or 2,922 they don't care. It doesn't make any difference. If you're one of them it makes a big difference. But in terms of what's reported to the general public, other than the Commission, it doesn't make a lot of difference whether you're reporting meters or customers. They know an area is out and if you're in it you don't want to be out.

MA: Good point.

MS: I think the question as you go through these discussions, you'll find out that once you get into this detail of what is reported and what is not reported, you'll find out that, the variation between the (?) table will give you, when you start looking at bench-marking and all those other kinds of things, causes these numbers to be much different. Then the gaming of the system begins and that's really where I think the definitions get to be kind of important or fundamental. Especially later on in the discussion. On the other hand I just want to make sure people understand, you have a definition of number of customers and if you looked at the table there's three different ways. Now to kind of carry this all the way through to storms and the rest of it, you're going to have 17 different numbers for different people using it. The caution here is that there are indices out there that we're not even talking about that are more reflective of the level of service that people

want to have. The load-based indices is one that really has not been reported but utilities know that concentrations of high load are critical to what they have to do to serve.

MA: We're not attempting to necessarily focus on any given indices. One of the things that we've asked from the beginning of this process is what do you - as an electric company or any other stakeholder - think would be the best measures for reliability? I agree Michael that these terms are going to be focused more on SAIDI, SAIFI and CAIFI because it comes out of this standard and this is a starting point for us, however, if load-based or some other kind indices make more sense that might be something that we want to pursue down the road and at the very least we want to know what those other kinds indices are. So, we are not attempting to simply focus here. We are starting here.

MS: Again, clarification, I just want to make sure people understand that there are other indices. It's just that this one has been defaulted by one that we have traditionally reported on. I would caution people to look at other indices too, not to limit ourselves to just one discussion. If you're going to open up the discussion let's look at a fresh approach not just the historical kind of way of doing it.

MA: Fresh approaches, we welcome.

KK: I'm concerned where we're headed with this. It's obvious that every company, every electric company, in the state of Washington is going measure the number of customers and customer counts that best suits them to be able to manage their business. Part of managing their business is service reliability. I'm just wondering if where we're heading here is trying to standardize it so each company collects data the same way and I hope that's not where we're headed here. Each company, it seems to me, needs to be able to manage his business independently and collect the data that it needs to manage it's business and it's reliability issues.

MA: I think we would agree with that last statement. You do need to manage your business. You do need to pull out the data that allows you to do that. There are several things that we are concerned about in this process. One is to understand what the data mean that you are reporting to us. Especially when it is using a lot of similar terms. If we do not have an understanding of what that data means not only will we not understand what was happening comparing utilities, but we may not understand actually what's happening within your own utility. I know especially in the last four or five years as your technology capabilities have increased you have made changes. Each of the utilities actually has made changes in the way that they gather that information so that the same indices at the same utility from year to year do not necessarily mean the same thing. And that makes it very difficult to track trends over time. So I don't think we're on a road to, in fact I know we're not on a road here to necessarily require the exact same kind of data gathering. At least if we can understand the differences that exist and to the degree I

think that there can be uniformity it might be helpful as well. There's a concept that I have had in mind and that is what you are doing for yourselves as electric utilities to run your own business. And if we require you to do a whole lot of different things just to serve the Commission, that's an additional cost that hopefully we wouldn't have to generate. If what you are doing, however, can be used to help us understand what is going on in your system, it may be much easier to take what you've already got, put it into a report format that we can then understand and to go from there. I think we want to utilize what you're already doing as much as we can and understand the differences that exist. We're not necessarily going where you were concerned that we were going.

KK: I just want to be clear that at the end of the day each company is going to have it's own system of collecting data and reporting for it's internal purposes and to the extent that it can make that available in defining it's own terms you can. But, I don't think you're ever going to get to a system where you have necessarily comparative data of all the utilities in the state of Washington.

SH: I would concur that the hard benchmark out here and we're not interested in benchmarking. We want to trend our own data versus being benchmarked against other utilities because there's so many differences in geography and they way that the data is gathered. If you're benchmarking we have a concern with that.

MA: Benchmarking to compare with other utilities or benchmarking to see a trend in your own.

SH: We want to trend our own data. If it's an internal benchmark, that's great, but just so we understand what that is.

DK: We've had some discussions among staff about the issues that we wanted to try and cover in today's workshop versus things that we think may be a worthwhile discussion to have in future workshops. And our real goal today was to try and have a good discussion and understanding of some of the terms, and understand where terms are similar and understand where and why terms are different. We specifically amongst staff talked about deferring any discussion about benchmarking or trending or anything like that to certainly at least the very end of the agenda where we're talking about where are we going to go from here. Do we talk benchmarking in that? If the answer is no we don't go there then we don't head in that direction. But today's workshop is not to get sidetracked on to what the Commission thinks that we want to do, what kind of comparisons we might want to make. What we clearly want to do is understand and be able to agree on terms, understanding where they're similar and where they're different. So if we can focus on that. I understand the concern and I appreciate the concern being raised, but if we could move back to the discussion of terms and go from there I think it would be more productive.

MA: OK, "Customer Count." Let's go on to "Total Number of Customers Served (3.21)." I don't know that we need to go into this. We've discussed it a little bit already. Michael from PSE mentioned that it's not necessarily a problem if you're looking at the whole system, but if you try and go down to a smaller level you have much greater problems with the numbers.

MS: Mark, this is going to be kind of a lecture process. This is an important number to go back to. Do you start at the beginning of the year January 1, or do you start at January 31 or do you do an average for the year? All those three numbers can be used by different utilities and none of them are wrong.

MA: I realize that none of them are wrong. What do the electric companies do? And is there is a reason there should be one other than the other?

CR: Actually we do something a little more complicated than this. The IEEE definition is what we would like to move to and what we are going to move to.

MA: I think that IEEE is correct in its second sentence there, in essence, whatever customer count is let's know and understand what it is and how you're counting customers.

Next term: "Distribution System." We have said at the outset that our intention is to look at distribution system reliability in this rulemaking process. But I know from years of experience the definition of distribution versus transmission can be muddled at times. According to IEEE here the distribution system is "the portion of an electric system that delivers electric energy from transformation points on the transmission system to the customer. Note: the distribution system is generally considered to be anything from the distribution sub-station fence to the customer meter. Often the initial over-current protection and voltage regulator are within the sub-station fence." A couple of questions. Does this definition work for all of us?

MS: For reporting purposes on the traditional SAIDI and SAIFI we use transmission and distribution outages. This is only looking at the distribution system causing outages. Customers see transmission outages also.

MA: Do you report transmission outages from transmission systems that are not on your system?

MS: Yes

MA: So if something happens on the BPA system that's included in your SAIDI's and SAIFI's?

MS: It goes back to Karl's comment. The way we believe the numbers should be used is every time the customer goes out the customer wants to know why it's gone out so we do it to the best of our ability. But if there's proposed rulemaking or discussion that goes forward we wouldn't want to go back to a distribution definition, where just the distribution outages are recorded, not transmission.

MA: Because it's not necessarily your fault?

MS: Not that at all. It's just that if you're going to benchmark or look at other utilities you want to be looking at apples and apples. One utility has transmission. What this whole proposal would lean towards is only distribution (?) And distribution outages.

MA: When you're talking about distribution only, are you talking about... You have some transmission, I understand, that sort of links the separate distribution areas of your system. Would that be included, or would that not be included?

MS: That depends on how FERC is going to rule on what's transmission. And if you have a transmission system that's going to be run by a grid operator that's what is transmission at that point. There could be a sub-transmission discussion about this whole thing too.

MA: Carol you asked a question about this definition, do we understand this? I know that I don't totally.

CR: Well we have a lot of engineers here but I'm not sure I understand it.

ML: Just reading the definition. They're saying that the station breaker and the voltage regulator are within the sub-station fence. So, by strict definition that may not be considered distribution system because it's within the sub-station fence But it's really where your distribution starts at the sub-station breaker. So, if your breaker trips you need to include that in your calculations.

MA: If the sub-station breaker trips?

ML: Yes

MA: You would include that and you're saying that this definition does not necessarily include that?

ML: That's the note. Distribution systems generally considered to be anything from the distribution sub-station fence to the customer meter. Well if your breaker is within the sub-station then depending on how strictly you go by that definition it may or may not....

MA: They may actually be saying here in the last sentence that, however the breaker is inside the sub-station. So if it goes you need to count it as well.

MS: That's not what it says.

MA: That's probably not what it says. Even if it is what they might have meant. OK. Dave would you move us on to the next one?

VP: I'd just like to take a minute to welcome the new people who showed up. [welcome]

MA: Next term "(3.16) Outage - Electric Power Systems: The state of a component when it is not available to perform it's intended function due to some event directly associated with that component. Notes: 1) An outage may or may not cause and interruption of service to customers depending on system configuration. 2) This definition derives from transmission and distribution applications and does not apply to generation outages." In my notes I put down "clear." I thought I understood that. Any comments from folks. Correct me.

MS: Of course Mark, I'm always going to have a comment, this is going to be a comment all day long. What's an outage? If you have two typical services for residential houses 120/240. If you lose one of those legs on the 120/240, is that considered to be an outage?

MA: That was my question on "Loss of Service," the next term. I thought I understood what an outage was. I think that would be an outage because it says it may not cause loss of service. But, the component is not able to perform its intended function. If a component being like one of the lines is broken, it's not available to do its intended function, I thought that was an outage but it was not necessarily a loss of service.

MS: At Puget we basically record all those outages. But some utilities, it goes back to Karl's comment, some utilities record it at the transformer level and at the up-stream fuse level and some people do it at the sub-station level. Where you define that outage is also defining what element you're going to be characterizing. So, it's a very difficult thing to say I want to go all the way down to a street light out. Is that an outage and what's the cause of that outage?

MA: OK. But by this definition, it would be even that minuscule component. Would it not?

MS: It depends on how you want to interpret it.

MA: Other comments? Bruce.

BF: Mark, as a point of clarification, would it be helpful to have Michael Sheehan. (Turned

tape over)....to understand what the context of the group was that put together these standards?

MA: I think that would be fine. Do we have general consensus if Michael is willing to do that?

MS: I think I could go back and give you kind of a thirty second review. This is kind of a five year process of putting this together. It's not something that was done overnight. And the other part of that discussion is, each one of these things was a lowest common denominator. For the minute, let's go to the outage definition of one minute versus five minutes. Those discussions were evolutionary before everybody agreed on what they actually were. And people went back and did whatever the hell they wanted to do. Because there's a business process that they have to go through. They just wanted to make sure that they could live under the umbrella that they have here. I guess the bottom line is Karl made the comment about business processes. Once you start getting involved with this you get involved with the business process. I'd be cautious not necessarily about what it means, but how is it being used. I think that's the bigger discussion here. Across the country there was a whole lot of people that used this and the contentious one was the storm definition of what's a five percent or ten percent outage. Commissions have said they're controlling all those decisions. That's not the utility making those decisions. There is a lot of give and take and, like I told you before, in Chicago they took four years to come up with -, this is the state of Illinois - four years to come up with consensus among the utilities in Illinois. I would be very, very hard pressed to educate everybody on all these arguments, whether they're good or bad because they're really arguing about their business practices. And that's underlying all these discussions that people need to know. How you do it today is the way we feel comfortable with doing it. Doesn't make it right or wrong.

KK: Can we step back just a minute and explain again where we're headed with all of this Mark, because I think going through all these terms is perhaps interesting but what we're going to find is that every company has they're own method of measuring all of these things in order to manage their own business needs? At the end of the day are we going to learn more than there are a variety of ways to interpret these and all the companies are going to be measuring things in a different manner and is it important to go beyond that? Can we just accept that all the electric companies in the state of Washington have different reporting systems to meet their needs?

TI: I'd have a hard time accepting that. I do realize there's a little bit of difference between one utility and the other but the bottom line is they deliver a product and it's called energy. I'd have a real hard time with that in going back to what PSE has said about business practices. Business decisions can make or break the reliability portion of what we're talking about here. Good business sense can make the company, bad business

decisions can break the company. I say there's a common denominator here when it comes to reliability. Not everybody is so much different.

MA: You're saying the differences do exist but they don't in your mind... in some sense they might add up as noise in the statistics and that there is some level of comparability that exists even though someone may use meters and someone may use customers and someone may call an outage this and someone may call an outage that? That there is still some reasonable level of comparability?

TI: I think that we've got to realize too, we've been in this business for 100 plus years. I think we all understand what an outage is. I think we all understand what it means by interruption of service. There's a big common denominator here that we could work off and come to consensus with this whole group on reliability.

MA: Karl if I can respond to what you have said. This is an educational process and I have been involved in my own or in staff's investigation into electric system reliability for about two and a half years. And some of the questions I am raising, for example on the one that Michael just raised, he beat me to the punch. I was going to raise that issue under "Loss of Service" not under "Outage." I was in a meeting at PSE, not too long ago, when Michael said what do you mean by outage. And I go "well, an outage is an outage." And then he asked that specific question. The team that is here that is looking at this issue has not had the privilege that I have of going around to the different utilities for the past two and a half years and talking about these issues. I have tried to brief them as best I can. But, we are looking at the issue of reliability in general. The Commissioners have asked us questions like "What is reliability? What is the reliability of the systems?" The legislators last year asked for a report on the reliability of the systems and they also asked what are the differences between them and so forth. We are going through a learning process where we are educating ourselves as a Commission about what these numbers may or may not mean. While it may end up being that there is nothing that ought to be done about creating more uniformity in the reporting of those numbers, it behooves us to be able to understand as well as we can what those numbers truly mean when we report to the Commissioners and when we report to the legislators. I was not planning, in my mind by the end of the day, to come, at this meeting, to any sort of agreement over exactly what the requirements would be for electric utilities on tracking and reporting information. We're just working with terms even and definitions of terms right now let alone talking about what other kinds of indices or what kind of reporting there could be. I think in my mind, I can't say by the end of the day we can just agree that everybody is going to go and do their own thing the way they've been doing it, but I'm not saying either that I think we're going to come to the opposite side which is at the end of the day we're going to be requiring all the utilities to change what they're doing and to meet a specific uniform way of tracking and reporting. We really are in an investigative process here.

DK: I'd like to add a slightly different viewpoint on what Mark has shared with regard to our obligation. We're trying to inform the Commission. We are trying to inform the legislature. Ultimately this agency's mission has something to do with those groups, but it has more to do with customers and customer service and assuring customers that they have some voice back through to the company that is a different voice. The important thing for staff and what we're trying to get at is a methodology for being able to respond to customers about how are things going. Is the reliability and business practices companies are providing on-going good service and reliability? Is there a trend that is either up or down? What are the reasons for that? So, it's back to customers that's really the important focus here. So business practices amongst the utilities are all going to be different. We have to understand that and we have to agree to work with that. But somehow we need to be able to use a language, some kind of a translation of those different business practices into a common language that can go to customers. Because customers are the same whether it's one utility or another. You have residential customers. You have business customers. Generally customers are the same. Somehow we have to get to that.

GS: I'd like to second that. I was going to say the same thing. I hear a lot of, so far, what the utilities definition should be of this rule. What utilities want of this and we've got to remember the customer is the end. The focus of this whole thing should be, how do we explain this to a customer? Customers aren't engineers. They're not electricians. They're not lawyers. They want to understand what you're saying and how you're saying it so they can deal with it or whatever. I think when you're talking about whatever business practices you have, and whether they be different or not, it has to be in a sense that customers can understand it.

MS: I'll go that one step further, I think if you talked to most utilities, SAIDI and SAIFI kind of numbers don't mean anything to them because they're system average and it's the Lake Woebegone effect, everybody is above normal. Somebody has got to be below normal. And how do you deal with that?

KK: I don't want there to be any misunderstanding, PSE is certainly very willing to assist and help the Commissioners understand and assist you in collecting the data we want. At the end of the day we are thinking about our customers and if we're doing something for the existing resources then we're more than happy to do that, but if we go beyond that is what we're concerned about and making new requirements that are going to be expensive, is the customer going to get his value? So, we're thinking about the customer too. We want to manage our business. We want to assist the staff in gathering the data that they want. We would like it to be done as simply as possible.

VP: This topic is more likely to fit in to part three of the agenda. Mark's intent was hopefully that we could come through a definition of terms so that then we could engage in the

application of those terms in their proper sense. I'd recommend that we move on. We're about halfway through the list of terms. And, since there seems to be some agreement that it's not irrelevant to discuss the terms. Let's finish discussing the terms and the second part this afternoon we might have a better insight because I've heard Mark repeat himself several times and I think it's fairly clear that the intent of the rulemaking at this point of time isn't to force benchmarks on anybody but neither are we ruling out what we might have to do to accomplish protection of customers and defining reliability so that the Commission can do it's work. I haven't heard a lot of dissension on that point. There does seem to be some anxiety about what the requirements will be but we'll get to discussing those requirements so if there's no major objection, could we go on with the remaining ten more terms that we have to get through. Is that OK?

MA: We don't know yet that there will be any requirements either. That's part of what we're trying to do here. If SAIDI and SAIFI don't mean anything I'm not sure that requiring SAIDI and SAIFI means anything. But that is part of what we're trying to understand here, whether those things do mean anything and whether there are other measures that are actually better. Whether there actually are measures that we can look at that we could be comfortable with that mean something that we can share with customers or have you share with customers or can report to the Commission. I do sense, however, that we probably don't need to spend as much time, as we are, on these terms. I would like to go through them quickly. I wasn't sure when I started what we really would find. I knew there would be some differences and some enlightening differences. I thought there would be a little more unanimity. Let's go through the remaining terms. I actually think we're only about 22% through. Some of them I know we can skip over rather quickly. And let's do this in way in which....we already recognize that there are a lot of differences in terms and what they mean. So we've established that. If we continue to go through and do all the terms to the same level of detail that we've done with the ones already covered we probably would only re-establish that. Let's go through the remaining terms. If you would point out any that you think are significantly more important than others in the discussion that we're having about sustained interruptions I'd appreciate that.

"Loss of Service: The loss of electrical power. Complete loss of voltage to one or more customers or meters. Does not include any of the power quality issues, swells, impulses, harmonics." I think that's pretty clear. A complete loss of voltage. Doesn't say anything about time there. How long it lasts. But the customer has lost electrical power to a complete loss of voltage. Again this is where I was going to ask my question about losing one wire but I don't think we need to go in to that at this point.

The next term, "Interruption: is the loss of service."

MS: I don't want you to go by this one because I think there are some things that people need

to know about and hopefully I'll try to keep it to the higher level that you want to go to. Sags are an issue because the definition as you get later on of an interruption is one to five minutes. But I will tell you there are some critical processes out there within businesses that five minutes is really not acceptable. Even though the interruption recorded is five minutes. The flip side here that are customers with processes that are critical processes and in that definition of "sag" there's not a clear definition of a sag. Even though people think they know what it means. It's not clearly understood.

MA: We're not trying to ignore sags, but on the notice of the meeting we stated that we wanted to talk about sustained interruptions today and that momentaries and sags are an issue we wanted to put off toward a later workshop.

MS: Loss of service of less than five minutes I would not consider that to be a sag.

MA: That's correct but also by this definition it's not a sustained interruption either.

MS: It's not a loss of service. I think that's important for people to recognize. Go back to Timothy's discussion, that's not reliability. That's not reliability to us either. Loss of service, the way the definition is, five minutes or less you don't have an interruption, a loss of service.

MA: Loss of service by this one means to me a complete loss of voltage and it says nothing about time.

MS: According to IEEE 1366 a four minutes and 59 second outage is not a loss of service. I would contend that that is something that everybody at the table understands.

MA: I think it actually is a loss of service. It's not a "sustained interruption." It is a momentary or a sag. If it's a loss of service that's 4 minutes and 59 seconds it is a momentary interruption by the IEEE definition. It is a loss of service for a momentary period to include 4 minutes and 59 seconds or less.

GS: As a business owner maybe you can help me here. One of the things that's been a problem for us is we'll get half the power. I'm not an engineer, but I'll get half the power. So part of my business will be on and part of it is off. Which also means I have to shut down any 220 because it's three phase and I'll blow it up. Is that a loss of service to you? It sure is to me. You're saying complete loss of voltage. I don't have a complete loss of voltage. But sure as hell have got loss of service. What is that definition?

MA: That actually is a good question. I'm not sure the IEEE standard addresses that unless it does so when talking about sags and surges. Reliability actually is a huge issue. You can

talk about generation. You can talk transmission. You can talk about the distribution system. You can talk about sustained interruptions, momentary interruptions and sags and surges where it doesn't interrupt completely at all down to half cycles. We felt it would be useful for us to try and divide up the discussion into smaller pieces. And the smaller piece we chose to take for today was sustained interruptions and not to address anything different than sustained interruptions, today. The concept of power quality problems, sags and surges, harmonics, etc., and momentaries, which by this definition, by this standard is defined as less than five minutes, whether you like that or not, was not an issue for discussion today.

GS: What happens then is the fire department comes along and you wind up with a total loss because they shut everybody down until it's fixed because they're afraid of fire.

MA: We understand there may be problems related to that, it's just not something that we were planning to address today.

HC: Just to be clear how you would report that specific event that you're talking about is that for tracking purposes it would come in as an outage and then by distinguishing in a (pack) out and somebody would be dispatched to deal with bringing the service back. For long term purposes we wouldn't consider it a loss of service but clearly it is a form. (Not clear on tape) Operation back to normal.

VP: If you have a concern that is beyond the scope of sustained interruptions and you don't want to come back to another discussion because it's not on the table today, you do have your option to fill out the comment forms. Talk directly to staff.

GS: What's the definition of sustained interruption?

MA: I think it's on page 3.

VP: If you don't feel satisfied be sure to speak up. But we need to kind of get on.

MA: We may find that it has not been valuable for us to try and divide up the reliability animal into pieces that we can handle. We may find that that just doesn't work. It is an effort we were trying to do because in our discussions, even in calls of customers, it's very difficult to distinguish often whether they're calling about a power quality complaint, an outage complaint or even just a customer service complaint. It was related to some kind of power issue but they didn't like the attitude of the person that came to the door, they came late or something like that and it's sometimes difficult to distinguish between the two. So, it may not work here for us but we attempted to divide up the reliability animal at least in terms of interruptions and power quality to sustained interruptions and then to address momentaries and power quality at a later workshop.

Again, "Interruption: the loss of service to one or more customers." Again, it depends what a customer is. "Note: it is the result of one or more component outages depending on system configuration." I'm not exactly sure what an interruption is different than a loss of service, but let's go on from there.

"Forced Interruption: an interruption caused by a forced outage." We haven't defined forced outage but I think the key there is the word forced versus the next one which is "Scheduled Interruption: A loss of electric power that results when a component is deliberately taken out of service at a selected time usually for the purposes of construction, preventative maintenance or report. Notes: 1) This derives from a transmission and distribution application and it does not apply to generation interruptions. 2) The key test to determine if an interruption should be classified as a forced or schedule interruption is as follows: If it is possible to defer the interruption when such deferment is desirable the interruption is a scheduled interruption, otherwise the interruption is a forced interruption. Deferring an interruption may be desirable for example to prevent overload of facilities or interruption of service to customers." My only real question is does this constitute the full universe of interruptions? It's either forced or it's scheduled? That's the way I kind of understand it here. Are there some interruptions that are somehow missing?

MS: There's also customers requests for outages too. They ask at times to take down their bus to do some work and that doesn't fit into either one of these requirement. But usually fit into schedule but it's schedule usually means the utilities scheduled the work not the customer. The definition, people use it basically how they want to use it. Some people don't include any of the customer schedule requirements some people only use the utility definition so therein lies the difference.

MA: Avista has not historically reported SAIDI's and SAIFI's. PSE has, in the Service Quality Index and PacifiCorp has as well. Are forced interruptions included in what you would report to us?

MS: Yes

CR: Yes

MA: "Sustained Interruptions." Maybe we should have taken it earlier but actually going from "Outage" to "Loss of Service" to "Interruption" to "Scheduled Interruption" and so forth seemed to make sense. According to the IEEE definition, "A sustained interruption is any interruption not classified as a momentary event. Any interruption longer than five minutes." Two and a half years ago when I first started talking with the utilities, I didn't actually know what I was talking about when we're talking about interruptions, momentaries, and so forth, and it's been a great learning process. But even then to find

out that a sustained interruption would have different definitions. Just for the education of all of us here, I believe that certain of the utilities consider sustained interruptions one minute and longer and others do five minutes and longer. And actually I think PSE has changed in the last few years. When you are talking about sustained interruptions, and reporting sustained interruptions, what are each of the electric companies talking about?

SH: PacifiCorp is at five minutes.

MS: PSE's at one minute. What is Water Power?

ML: We're going to design for five minutes.

MA: I have not seen the actual data and the studies but I have read and it makes some intuitive sense that most interruptions that last one minutes are also going to last 5 minutes or close to it. There aren't that many interruptions that last longer than one minute but less than five minutes. Is that realistic?

GK: Our experience the number outages falling between the 1 and 5 minutes is a fairly small number of outages. I think the important thing for us in terms of the definitions is not exactly how they apply and compare with other utilities but rather a clear definition is run within the utility so that all faults are categorized and therefore the SAIDI and SAIFI numbers that can be reported and can be clearly understood as to how the thing was derived and then can be compared year to year in terms of utility comparison and that's certainly what we are striving to do in terms of how we define our definitions.

GS: Are there a lot of power outages that are between one and five minutes? In terms of power outages, however you define them, are there power outages between 1 and 5 minutes or five minutes and an hour?

MS: Well it depends on how much automation you have in your system and what you do remotely. If you are in a company that's going to do things switching back and forth where you could sectionalize faster, that's why you want the five minutes.

GS: So they're generally going to be scheduled, right?

MS: No, not necessarily. If you have an outage where a tree goes through a line, you can then switch and have an operation make that kind of determination before anybody gets mixed up with it. The other flip side to that is automation switching has a safety consideration of how long you're willing to switch without people getting in the middle of the wires. So there's a trade-off to be made here that goes back to the business practices of what you're willing to risk.

MA: Without trying to lead to desirable uniformity necessarily, it seems to me that some of these definitions it might be worthwhile if we simply chose to have all three of the utilities using the same one, if there's no reason not to. So, I'm wondering if there are business purposes - we're not talking about operating the system, we're talking about reporting - are there business purpose, accounting purposes or other reasons for selecting one versus five?

KK: Once again, from a management standpoint once a practice is set into place and internal forms and reporting items and computer reports, data entry, to make a change in how data is collected and reported can sometimes easily, even a small modification, amount to over six figures, although it doesn't seem like a big change, it's huge by the time you try to put it through the organization. So, my caution is that it's going to be very expensive to try to put all the companies on a strict reporting standard.

SH: We'd like to stick to the 1366 standards as much as we can. That's our standard and we us that in the other states too. Not just on the five versus the one minute, but all of them, all the terms.

CR: We have a business purpose that I see that gives us a challenge in operating in multiple states.

MA: Is that fundamentally the reason that you'd like stick to those standards?

CR: Yes as much as possible.

ML: We're starting kind of from scratch and so we're going by IEEE as our guideline when we're calculating these because we don't have any traditional way of calculating.

MA: OK. Is it because you're in two states?

ML: Just that's what's out there for guidelines, since we're starting over new that's what we're using.

MA: I'm going to skip the terms "Momentary Interruption" and "Momentary Event Interruption," if you don't mind. Other than the fact that sustained is sort of defined as any interruption not classified as a momentary event. Let's also skip "Interruptions Caused by Events Outside of Distribution." Michael already raised that issue. We've talked about whether transmission numbers ought to be involved as well. The next four terms I'm hoping will go fairly quickly.

"Interrupting Device" and again these are probably related to momentaries too. Interrupting devices generally are things that are automatic or remotely operated that

when there is a fault they close, they open. Attempt to do away with the fault automatically and those can effect the number of momentary interruptions you experience under the five minute period. I think these relate mostly to discussion of momentaries. But lets just read them very quickly. " Interrupting Device: a device capable of being re-closed whose purpose is to interrupt faults and restore service or disconnect loads. These devices can be manual automatic or motor operated. Examples may include transmission breaker, feeder breakers, line enclosers, motor-operated switches." "An Interrupting Device Event is the operation associated with the interrupting device for cases for where a re-closing device operates but does not close out and where a switch is only open temporarily and an interrupting device operation, the operation associated with a re-closing device for cases where the switch opens and closes once but does not lock out." I actually don't understand the difference between those two, but does anyone here think it's important that we discuss it today?

"Lock Out is the final operation of recloser or circuit breaker in attempt to clear a persistent fault." The over-current protection device locks open their contacts under these conditions and in that case you've had maybe several momentaries and it could not get rid of the fault and so it opens and then you have what is likely to turn into a sustained interruption because it will take some kind of, probably manual effort, to go out there and reclose the thing. Maybe some of them wait a while and try and close it remotely, I'm not positive of that.

The last one; "Step Restoration (3.19) is the restoration of service to blocks of customers in an are until the entire area or feeder is restored." I'm going to let Michael decide whether it's important that we not pass this one by. I will attempt first to describe my understanding of why it is significant and that is that restoration often takes place in a step by step process. When a whole feeder goes out sometimes it can be brought up all at once. When a transmission line goes out and distribution lines follow, the transmission line is fixed and all of the feeders can come back up. But if there's a break part way down the feeder and some fuses have blown and there's a way to take some of the customers and switch them to another circuit you might have thousand customers going out all at the same time, but they are not necessarily restored all at the same time. If it is important to track duration - how long customer outages last - then tracking step restoration could be an important part of that because if you wait until the last customer is restored your numbers will reflect that all of those customers were out for that whole duration and it may not be the case. I've made a case for importance in step restoration if you're going to look at duration of interruptions as important which is one of the main two indices; SAIDI. Any other comments on that? I believe that all three of the electric utilities now are doing some level of tracking of step restoration, but I think it would be important over time to understand if we want to track duration what each of the utilities is doing. In our 6560 study process, which included the largest public utilities in the state as well as the investor owned utilities. There were clearly some utilities who did

not track step restoration at all. Which is another reason for having difficulty in comparing indices.

"Duration Interruption: (3.4) The period, measured in seconds, or minutes, or hours, or days, from the initiation of an interruption to a customer of other facility until service has been restored to that customer or facility an interruption may require step restoration tracking to provide reliable index calculation. It may be desirable to record the duration of each interruption." I think basically what we just talked about in step restoration.

"Major Event (3.13) - A catastrophic event that exceeds design limits of the electric power system and that is characterized by the following as defined by the utility: a) extensive damage to the electric power system; b) more than a specified percentage of customers simultaneously out of service; and c) service restoration times longer than specified. Some examples are extreme weather such one in five year event or earthquakes." I think PacifiCorp sent me an e-mail that said that IEEE had actually voted recently to make a couple of changes in this. Do you want to clarify that?

CR: I guess after five long years they did make a decision on this one and between the a, b, and c would be "or's." Prior to this time, according to the people on this committee, it wasn't really clear, but at the February meeting they said it was "or's." So we've been discussing this for days, it seems like, this major event definition. In one of our states it's defined in administrative rules differently than this. But now that we've got the word from IEEE that it's defined as this way this is how we'd like to view it. Another thing that we would like to add to it is, we've defined for number "b" our specified percentage is 10% and then for "c" we are using something different than this. We're going to use three standard deviations above a daily mean to be indicative of a major event. So that's one of the deviations that we're going to propose.

MA: Let say for customers that may be here why this may be important if we're tracking interruptions. That is that while the customer may not see any difference in terms of whether an interruption is caused by a major storm or not, it's still an interruption. Tracking the system and understanding how reliability is being handled by the utility over a normal basis, over average conditions over the years, is something that's fairly important. A storm can come in of extreme nature and just absolutely destroy a system, no matter how well that system has been built. And also in the midst in responding to an extreme event the utilities first order of business is safety and restoring customers; counting how many customers are out and tracking step restoration and duration and so forth is probably very difficult and my understanding is utilities are not too concerned about making sure those numbers are accurate. And so if storms do represent a large percentage of the final indices the numbers will really be watered down in terms of their accuracy and there meaning if storms are included. There has been an effort by IEEE and I know other utility commissions in looking at reliability indices to see if there is a

way to pull out the major storms and other events. The problem has been is people have defined storms differently. And again this gets to if you do want to compare. So I understand that perhaps it's not something that is that critical. But one utility will define a major storm at 10% and it's not simultaneous. I think for PSE right now it's 25%. It's also not simultaneous.

KK: 25% percent of the customers are affected by an outage and the storm is widespread.

MA: So if the two of you were next to each other you might define the same event differently and one would include the storm numbers in their reported statistics and one would not include the information in reported statistics and we do recognize that.

MS: First off I would like to re-clarify one of the comments you made. The utilities focus changes once a storm happens. Recording outages becomes secondary compared to restoring customers back to service. If you look at the kind of paperwork that needs to be generated it's incumbent upon us to devote as much resources as we can trying to restore service. So to go out and keep track and detail and have people fill out paperwork and all that stuff, gets to be lower priority. So it's not as if we don't want to do it, it's just that it gets to be relative to all the other things that are going on. The paperwork gets lost.

MA: I didn't try to insinuate that, but I appreciate that.

MS: I think there's a definition if you look at how, even in the state of Washington in 6560, if you look at two similar utilities like Puget and Snohomish as far as geographically close, and you look at the divergence and numbers, the first thing that jumps in your mind is why is there so much of a divergence? Well in Snohomish they have a definition that's totally different than this. They use one that resource based. Basically when they don't have enough crews they call it a storm. That gets to be a whole other kettle of fish because every time the wind is over 25 mph, they don't have enough crews, they call it a storm. There's a resource definition.

MA: Right. It's not even plugging a different percentage of the same definition. It's a totally different....

MS: I would go back to clarify, Puget calls a storm as 5% of customers as the Commission did in the original agreement - the merger agreement. 25% is only used for the accounting discussion, catastrophic storm. Not a wind event or a storm event.

MA: In reporting SAIDI and SAIFI, without major events you are pulling out any storms where the percentage was 5%?

MS: 5% during that 24 hour period.

MA: Which obviously would include the catastrophic ones at 25% but also includes others that would not be included for accounting purposes.

MS: Correct

SH: One other thing on the new update on the 1366 standard the simultaneous aspect is out of that. It's due to the same major event.

DK: I'd like to pose a question to the companies here. Again, my interest is not trying to, I'd like to see us stay away from continually falling back into saying, well, comparing the one company versus another and that kind of thing. I'm actually more interested in comparing to itself over a period of time. So my question is, and this may not be pertinent for Avista but, has your use of these terms changed over time? And that would make a difference in terms if the staff is trying to report to the Commission and report to customers about on-going activities of the companies, or on-going levels of service or reliability, if there's a change in the use of the definition certainly.....(turned tape over).

MS: ....historically at the storms at 5%. That's what we have done in the past.

ML: Is that five percent of your total customers or on a particular feeder, or what.

MS: Five percent of the total customers in a 24 hour period. So if the storm starts at 10 o'clock at night and goes over to 2 o'clock the next morning and we end up with less than five percent then that's not a storm.

GK: With the reporting major event we are certainly happy to report the figures absent of major events and figures including major events. Our concern in extracting major events is to examine the underlying performance of the system and using the definition that we believe gives us the most accurate figures of the underlying performance so that we can track over time how customers are being served.

CR: In the most recent year or so we've been using the general definition of 10% in an operating area. But there were some nuisances in the definition, was it "ands" or "ors" in including these things. I think the last few years we've been pretty consistent with the 10%. But prior to that I think major storm was very subjective.

MA: Vinny has suggested it's about time to take a break. We have just one more term and I ask you if it's something that we need to talk about and if not we'll put it off. If we don't need to talk about it then we can be done with the terms part of this.

The term Connected Load (3.1) relates to some indices in the standard that are load-based rather than customer or meter-based. So Michael, is this something that you think we should look at in a little more detail and so we wait or can we go ahead and say the terms period...

MS: I think we can go ahead. I just want to make sure that people recognize that there's more than one or two indices....

MA: We will not even read the connected load definition here. And Vinny, you want to give us some instructions?

VP: I would recommend that we take a ten minute break. Then we'll get started on the issues discussion and get that cued up before lunch.

*****BREAK*****

VP: I would like to propose or offer an opportunity for the folks here that have come to attend and listen as customers of the companies, perhaps if they would like to speak to their perception of sustained interruptions. I think that we have heard concerns and we spent most of this morning in looking at an engineering approach to what constitutes a piece of an interruption and a component of an interruption and duration of an interruption. But this afternoon discussion about tracking and reporting sustained interruptions in terms of what staffs' responsibilities are at the Commission and as well as what are indices and benchmarks might be over time. We might be better informed if folks here who have raised some concerns about the customers perception of a sustained interruption would just take a moment to inform us if you would like, you're welcome to. If nobody wants to do it fine. But I think it would be healthy for the Commission staff to hear that input while the companies are here and it might not hurt the companies to hear it too. Would you like to put your two cents in?

BT: I'm with the city of Bremerton and we're probably one of few cities that is here today. Part of our concern is reliability and some of the definitions. I was reluctant to say anything this morning because I wanted to allow it move along as well as the rest of you did. There was point made there by the person sitting in this chair earlier about a three phase operation on the customer side, would it be considered an outage and as far as we're concerned it would be. If we have three phase systems that require that and we've lost a single phase then the system is of no value to us for that period of time. Therefore, in your outage definitions and discussions we would consider that an outage. Some of our critical areas that we have are sewer and sanitary pump stations and in most of those cases, as a customer, we are responsible to restore that as quick as we can. In some cases we have our own temporary generators standing by to sustain that, but in other areas, in some of the design of the systems, maybe those pump stations have a wet well capacity

that could store so many gallons over a period of three to four hours of sustained outage. It's when we have these severe storms and some of these are located in remote areas and we're having a hard time getting a hold of the utility company because they're fighting other fires, this now becomes an issue with us. Maybe in the scope of things, maybe it's our responsibility as a customer that we get that system going again and not rely on a utility company. But I think that's what we're talking about here in the outage time and what is acceptable. We don't want to beat up the utility company. We understand that this is a forum to work together to solve problems and not point fingers at one another but if reliability gets to be an issue in some of these critical things in our components and our system then maybe we'll have to re-access that reliability falls upon us if it gets to be an extended period of time. Recently, in our city, on the Puget Sound basin, we have been targeted by the Puget Sound Alliance for overflow systems in our sewer and sanitary storm system and so we are being monitored very closely and at one time were under a court order that should we exceed some of the levels set by the court that they would put a sewer moratorium on our city which would not allow us any new building at all. So it's a big concern of us and we're trying to meet the mandate of the court. Going back to that outage definition if we lost something and the lights and the pump station would still work and the fans would work but the motors don't then the rest of it is of no value to us. So we would sustain that as an outage.

VP: Anyone else.

RK: In investigating power outage and power quality type complaints, a lot of times the response back is that the outages to that particular customer was there haven't been that many. But, yet, I don't know that for sure. I'm sure that the data is there within the company to specify how many outages that were sustained by a circuit or the distribution system that would have put that consumer out of power or to look at power quality over a sustained period of a year or more. And that's what I'd like to be able to get and to see if there's information available and to see what the companies are doing about resolution of long term chronic problems on any particular circuits.

VP: We're opening up the discussion temporarily on a consumers perception of sustained interruptions.

GS: The reason I asked the question about the difference between the momentary and the sustained one and what the percentage was is that it would just seem to me that if it's five minutes and it's corrected or automatically corrected or whatever happens that those would be almost non-perceptible to the customer except for people who have maybe high tech kinds of things. But to me as a business owner I'd hardly notice five minutes or one minute or whatever it is. It's only the sustained ones I'd be concerned about as a business owner or probably as a home owner. It would be specific industries, as Mike mentioned, that 5 minutes would be a big deal to them. But I would think those would

be specific cases.

VP: It's my understanding that part 3 of the agenda is an issues discussion focused on tracking and reporting sustained interruptions. The intent is to review first staffs' responsibilities and perceptions on the difficulties of doing these things. Then we're provided with three tables in the packet. Table 1 is labeled General Information. Table 2 is Examples of Specific Information. Then there's tables 3-6 which are variations of the indices. This is where the SAIFI and SAIDI definitions come in. This is where we get into some of the meat. The purpose of going over all the terms this morning was basically to inform this part of the agenda which will begin now. We'll take a break at 12:30. We'll pick up the discussion where we leave it off. We might even take some additional time if we need it at that point. Doug is going to take us on to item 3A-Staffs' Responsibilities.

DK: In putting together the information that we had and the intent of what we wanted to cover in the workshop here what we tried to do is to be clear to both the public and the companies that we're working with as to what it is we see as some of the basic things that we try and accomplish as part of our job. In talking about this, we mentioned it a little bit before, that there are several parties that we respond to. We respond to customers: Roger directly responds to customers in trying to help them with particular specific issues that they have. We respond to the Commissioners' in general and specific terms about what is happening with a particular company or a particular trend in the industry and we respond to legislators, again with regard to both specific but more often general questions. So, the kinds of things that we're trying to understand and be able to get at is being able to know what is safe, adequate, and efficient and in all respects just and reasonable. These are the words that are in the statutes that we work under and in the rules that are in place now. So that we can be able to understand that and move in the right direction, this is kind of one of the things that we're at a position where we're saying to the companies, help us get our job done and in an effective manner. We understand that there are differences between companies and I again want to keep us focused away from this kind of a tendency to kind of go back and look at the comparisons. I think part of the reason that we tend to fall into that is back to the work that we did with the 6560 study where the legislature said explicitly, tell us how various companies differ, give us a table that has a number of the various companies that they can compare. But what I'm truly interested in is trying to see on an on-going basis, how do we respond to, how is a company doing on an on-going basis. I'd throw that open for the first part of it to say how do we know that things are safe, adequate and efficient?

GK: Looking at safe, adequate and efficient our perspective is out of this would be an additional debate. We will not compromise safety in terms of reliability. Safety is of the first importance. If that means that the duration customers are off supply increases then that is something we will take. Safety we will not compromise.

DT: I think if you look at safe, adequate and efficient. Safe to me means that you have an adequate full time work force that's trained in doing this type of work. I don't think the worker safety is public safety. I made the statement in the last public forum that reliability is not much different than changing the oil in your car. But you've got to maintain your system. You've got to have people on the job that can maintain a system. That famous saying that you pay my now or you pay me later. With that said, I'd like to submit to the staff a letter from Washington State legislators, there are thirty of them that have signed this document and it talks about reliability and why we're here today.

GK: How about I suggest I'll be glad to take a look at this over break. You didn't address any of the points that are made here, but I'll be glad to look over it and maybe I can summarize and share that after the break.

DT: Just to kind of touch on that, PSE announced to IBEW Local 77 that they were going to transition - or in my words move on - approximately 1,500 workers into a subcontracting entity service supplier or whatever you want to call it. That's about the gist of the letter that pertains to reliability.

VP: Had you already sent this letter and this is just a copy? It's already been delivered, you're just submitting a copy?

DT: Yes

MS: One of things that I think needs to be put in the context of SAIDI and SAIFI numbers, is they don't really measure customer satisfaction and satisfaction is really what we're after and not really these, and I call them engineering perspectives, are used by engineers but not necessarily, it doesn't really take into account customer satisfaction. Any type of concern that I have with using these numbers are they're more of an engineering tool. It doesn't really take in the problems the customer is experiencing. For a residential number, commercial or industrial, all these numbers you get an average number and it's really much more difficult to take that into a customer satisfaction number. So what if the system is really SAIDI of 88 and you've had 3 or 4 outages in a year. These numbers are not really meant to be used that way. There's a real customer satisfaction discussion that goes on here. I think if you move into a rural area you have a different expectation than you have in an urban area. There's different characteristics and you've got to be very careful in how you're using these numbers. I would say as a person who uses the numbers it's almost the difference in a person water-coloring something with doing it by the numbers versus somebody using from the heart. There's a different approach to this whole reliability matrix. So this approach of doing it by the numbers is really a mechanical approach and it doesn't really give the real essence of what you should be doing as far as delivering service.

RK: I've got a question regarding adequacy again and I know that's a pretty hard category to grapple with. I think Michael you hit it on the head, is customer satisfaction. How do you get to customer satisfaction and what's really adequate to the situation? SAIDI and SAIFI is, I think, a system-wide average but I guess you would also measure it on a lower basis by circuit or by system. There are certain systems and certain circuits that have lower averages than the system-wide averages typically and many of these systems are in rural areas and hard to maintain areas where there are a lot of trees and so forth. Some of them may be due to design of the network where transmission facilities need to be re-engineered, which I've seen on a complaint basis for an area like Port Ludlow for instance or possibly - I don't know what the problem is on Mercer Island - but South Mercer Island is having problems there and I don't know what the SAIDI and SAIFI is for that area. Maybe there's a heavy tree workload.

MS: Well I live in South Mercer and I don't have any problems.

RK: But I don't know that, I have had complaints from that area. And even from the City of South Mercer. I don't know how we get to that and that's hopefully what I'd like to see and actually from a learning standpoint, for me, so that the people in Consumer Affairs in this Commission can be better able to respond to consumers when they call about complaints and we can then say hey, there is a problem in your area because it's a heavily treed area and so you're reliability is going to be lower and we can feel comfortable with that.

KK: I think staff is challenged with a significant issue here in trying to define what's safe and adequate. Certainly, as Michael points out, it's something that you probably can't do by mathematical equation that each company needs to be addressed individually. Even the geographic areas within each company have different issues as far as safe, adequate and reasonable. I think every electric utility in the state of Washington would put safety as number one in terms of responsibilities. Certainly it's up to the management of the companies to provide adequate and reasonable service. They're constantly looking at their electrical system in terms of where improvements need to be made, where trouble areas are and putting the resources where they believe it gets the most value. In the case of our company anyway, its goal, one of its mission statements has been to provide the best possible service for the least possible cost. In terms of reasonableness we're trying to get the best service for the best value to our customers and probably that's not an uncommon goal amongst us. I think that each company is going to ultimately have to be measured individually rather than broadly and mathematically. So you do have a big challenge ahead of you and I think perhaps one of the best ways to address it is with each company individually.

DK: I guess I would acknowledge your comment Karl about working with each of the companies individually. I think we've said that a couple of times here today and we

intend to do that. Our challenge, as you said is, trying to deal with an array of customers and an array of interest groups. Be it from the Commissioners to legislators, to customers to employees, to whomever. And look at the broad mandate of efficient and reliable and just and reasonable service and figure out how you get your arms around that in terms that we can do on a repetitive basis or a basis where we can reliability determine what is the right level or measurement from one year to the next. By necessity some of that does involve engineering assessments and calculation and measurements that are encompassed in some of the indices that have been talked about here, SAIDI and SAIFI. I appreciate your comment, Michael, with regard to customers and their level of expectation and their level of satisfaction. What I'm hearing is that somehow you need to roll in that perception piece and that customer response and subjective piece along with the more objective measurements as well. So I think those are some good comments that may help us.

MS: And to go further on that while you talking, one of things that I would think, and I have talked to Mark about this in the past over two and a half years. One of the concerns that I would have is that there's been no definitive study linking customer satisfaction with the SAIDI and SAIFI type of number. So one would think, why are we measuring something that has no correlation with customer satisfaction. Why go down a path that sort of says that, hey you have to do this, where there's no definitive body of knowledge that proves that one level of SAIDI and SAIFI is good versus another. We could be going after a straw horse. We were talking at break about customer service and what does that mean. Just because we have a number doesn't mean that you really have a satisfied customer there. That may be the total wrong thing for us to be doing. So that's my concern with the SAIDI and SAIFI and even though we believe that it's a worthwhile thing doing as a company, in following through with the IEEE, it's more of an engineering perspective and not a customer service perspective.

GK: I guess I would agree with part of your point and maybe disagree with part of it. I think SAIDI and SAIFI numbers are useful in that you're going to be able to find out trends that are going to be over time. So if you get a time element in there and you get a delta and you figure out whether that delta is positive or negative then you're going to be tracking something perhaps that's useful. But you can't get the delta unless you have the individual points to compare along the timeline.

GS: In think what we're talking about is qualitative versus quantitative. Qualitative and quantitative numbers are both helpful but you have to look at both of them. And something I think I learned in business a long time ago is that reality has nothing to do with it, it's only perception that counts. If everybody thinks you're a jerk, you're a jerk, regardless if you don't think you are or not. It's the perception that the people have of you as a company or a business or as a person that counts. So you have to deal with that and that's a qualitative issue not a quantitative issue.

DD: I think the other side of it that we really haven't talked a whole lot about yet as far as us being regulators, is you're going to come into and ask for us for a rate increase or adequate compensation to run your business based on certain assumptions. I recall Puget came in a couple of months ago and we talked about silicon injection of cables. It was kind of, well, we think this will help. I think what the staff is looking at is the more concrete data we can get as far as causes. Another typical one we talk about all the time is tree trimming. If we double the amount for your tree trimming, will that reduce it, cut in half the outages or will it only cut 10%. I think we really want to talk about cost benefit analysis in everything. We want to be in team work with you and I think that's why we want to talk about standardization about what the measurements are and what reliability is so we can talk with some intelligence about what should be done.

MT: I have a comment on the sag part. I know we kind of blew by that a little bit but you mentioned terms of (?) and when I think about safety I think about public safety and I think about worker safety and I say that relative to utilities' distribution systems and transmission systems. And I look at possible customer satisfaction based on that. We get a lot of calls from the utilities about leaning poles or services going through the trees How about maintenance of the system? How about placements of your facilities, bad engineering, bad placement? The system is forever changing. What do you do with those facilities, that equipment? That, I think, is a safety issue. Another safety issue from a workers standpoint is as you reduce a workforce you change the way you build things because now you're shrinking everything, you're even shrinking your facilities. It makes it difficult for a worker to engaged in that work. Which means that it's a danger. Which means it might be safe to do it with an outage so now you're getting into the scheduled outage and the unanticipated outage. Is that what the safety piece is here we're talking about? We're talking about safe as a statute?

MA: There are all kinds of trade-offs in even just looking at the reliability issue. For example, if you underground you might reduce the number of outages but you're under-ground outages happen to last longer. So you might be decreasing your SAIFI, the frequency, but increasing your SAIDI. So that there are some trade-offs too between reliability and safety and efficiency and the rest. I think I'm just admitting that you are correct in making that statement. I'm not sure where exactly we would go with that. It's not that we want to ignore the safety aspect and simply look at reliability. We have to look at and weigh all aspects of that. And it does make it difficult and there are some trade-offs between the two. We are not however, getting down to the level of trying to micro-manage and so, least I hope not. That kind of trade-off, generally speaking, the utilities will be looking at based upon a lot of things including customer input. My sense is that we're looking at those issues from a broader perspective, not quite that level of detail. I think, as Doug has said, this is state law, this statute. This is the way the systems are to be operated. And as the regulator we are responsible for looking at that and making sure that that is indeed the case and we now have rule as well that mimics that language about

safe, sufficient, so forth.

GS: Does that fall more on to L & I? While everybody should be concerned with it, isn't that an L & I responsibility?

MA: A year ago the legislature passed a law that said the utilities need to design and build to the National Electrical Safety Code. Prior to that there was a Labor and Industries rule that said they had to build to something that was similar to NESC. Now its definitely NESC. And labor and Industries does implement that code, but they do it from the perspective of worker safety not the perspective of public safety. So that if a wire, a high voltage wire falls on to a low voltage wire and causes some damage and something breaks and someone is even electrocuted, for example, if it is a worker safety issue, L&I will go out and will measure, this is post event, will measure to see that things were built correctly. But if it's a public citizen they do not do that. It's a little bit more twisted than that if it's an employee on the job for a different employer then they do get involved because they would be questioning whether or not the utility system had created a danger for another employer. I think that's all I should say on it.

GS: So we're back to definition again.

MA: L&I does inspect and enforce the NESC but it is in the area of worker safety and not public safety and there are some areas of the NESC that effect public safety that L&I does not directly inspect and enforce for. I'm quoting the policy person at L&I when I say that.

MS: I was going ask a clarifying question of Roger. His definition of adequacy, it bothered me a bit or I didn't quite understand it and would like to know what his definition of adequacy is.

RK: I don't have a definition of adequacy. I just posed the question. It is hard to grapple with the term. But from a consumer affairs standpoint we do see complaints and sometimes the complaints come in from a certain area and there's a feeling that there's something wrong with this particular area. Maybe something needs to be done. Maybe it's a system design problem. Maybe it's more tree trimming, but maybe something needs to be done because complaints are coming in a particular area fairly steadily and then so when that happens I think over time it seems like yes, something is done after complaints start coming in. My question is at some point in time somebody knows that there's something wrong there. Is there a certain level of complaint load that comes in before we look at it? I don't know.

MS: Mark, this would be good if I was to extend this discussion. This discussion should then go on to these definitions also, just as you've done the first time because traditionally

adequacy within the electric engineering community, at least from my point of view, has to do with supply. It really means generation and I don't think that you want to get into the generation issues. So adequacy needs to be better defined of what terms you are trying to use. Just as the safety discussion. There needs to be a better definition of all these terms. Because all of us could have different definitions and walk out of here with different impressions. I don't disagree with your definition, Roger, I just think the traditional approach has always been adequacy of supply. And that has nothing to do with what we're talking about here today.

DK: I don't think adequacy in legislative context in the statute had anything to do with generation either. As I understand it, and these terms are somewhat vague, and that's generally how legislation is written, but I believe these were written from a customer's perspective. So, as far as the customer is concerned it is safe and adequate and provided the services that the customer needs to buy.

MS: Yes, and I think the terminology, when you look at this, was written twenty years ago. Traditionally that was probably when it was done. With the supply being the adequacy. That's my contention. The regulation is different today.

MA: We understand your contention.

DK: Anybody have any other comments? I would acknowledge your comment with regard to safety and let you know that we try and determine where our role is and where the role of Labor and Industries is and there is a distinction between us and them. And yet we have some commonality of terms and there are some things that may affect one or the other. But we need to figure out our path through there. And I don't at this point know exactly what it is and that's why we're having these workshops and asking for that kind of input.

??: Primarily on the customer. If you don't have a system that's maintained it's potentially dangerous.

VP: In looking at the agenda did you feel we adequately addressed the second and third bullets? So Mark is going to lead us on the discussion on getting into these tables. Again it's my understanding that we're going to be going from more general to specific and in the process working with some of the definitions of terms that we addressed earlier in the morning. It's not to be limited to those terms so if anyone feels like speaking up from a customer point of view or perception point of view or satisfaction point view, it might be good to see if we can work those in rather than staying strictly in terms of numbers and causalities. Again we'll take a break at 12:30 so we'll go as far as we can.

MA: Actually, not to take on the role of facilitator, but I would like to pose a question. This

next section really is as we've seen it sort of the meat and substance of the discussion that we thought we would have today. The tables do kind of flow from one into the other and it might be better actually to do that after lunch to begin this next section and to start kind of at the beginning rather than breaking it after half an hour. The original agenda said approximately 12:30 to 1:30 so we could actually break earlier if we wanted to. Another thing would be for me to kind of introduce things and go over maybe the first table and go away and have us all kind of think about this before we come back. Is there a general response to that?

MS: I first think this may be a worthwhile discussion, but I also think that there's kind of a tone in my, it just comes back to me as I'm sitting here listening to this discussion. You've said it several times, Doug, and you've said also Mark, about trending these numbers. I would come back and ask that question of how it's intended to be used. Having used these numbers for twenty-five years I will tell you that you can't trend these numbers because of the weather normalization. If you have system weather events that are typically 20-25% variability from year to year and you're trying to measure 5% you're really wasting your time. So, this trending concept is something I would like to sort of explore and have you explore because you use that in your first bullet and I would like to find out how you intend to trend these things because I have never found anybody who has been able to trend the wind. So if you intend to be doing that kind of stuff with this data I think we need to have a much more fundamental discussion of how the numbers are going to be used especially when you use the word trend. It's something that sort of says to me this is just connect the dots. I don't think it's that easy. Especially when you have variability of 25% and you're trying to measure 5%. Your noise level is bigger than what you're trying to measure.

MA: Anyone else have a comment of whether we should start this now or have lunch now? Is there anyone that can't come back after lunch?

*****LUNCH*****

VP: We are picking up our agenda with item 3. Mark Anderson will lead the discussion.

MA: This next part is clearly a part where we are seeking your input. Like that previous discussion this morning, we have a starting place. I didn't presume that by starting where we did there would be great expectations about where we were going to end up and I don't presume that here either. We have attempted to put out some ideas, if I can back up some time ago, at the first meeting we asked for some information very broadly. At this point we felt the need to narrow things down a bit. We have taken some time to think about the kind of information that we think would help us provide information to customers, to the Commissioners, to the legislators, a sense of what reliability is, what's happening with reliability in the various electric companies. Not every possible index

(turned tape over) not every possible measure. I'm going to go through these tables in case there is anyone that has not seen them before today. The six tables went out as part of the notice, so most of you have probably had an opportunity to look over them. My plan is to do it one table at a time and to discuss what's on those tables and the issues that those tables deal with. Again, if there's something that isn't there that ought to be there, we want to know that. Then, to move on to the second table and so forth, and by the end of the time that we've gone through them we can continue the discussion and of course refer back to them if that's a useful thing to do. There's a certain flow to the tables. They go from more general kinds of information to more specific information and they start, at least from the second table, with more individual kinds of measures and then they're combined in different ways to create some indices. And we are interested from the beginning to the end. Is this the right kind of general information? Is this the right kind of specific information and are these the right kind of indices? Should some of these be dropped off? Should others be added in? Should they be combined in different ways? So, while I will be presenting what's in each of these tables for those of you who are on the bridge line, potentially and others that may not have not had a chance to see this I'm going to read through them and just characterize what we're attempting to put in these tables and then open it up to discussion. Any other comments from staff at this point?

Table 1 titled General Information in the left hand column says "Characteristics of Sustained Interruptions," and in the right hand column, "Why this information would help staff do their work." And we have listed five different characteristics of sustained interruptions: frequency - the number of interruptions that customers have; duration - how long the interruptions last; location - where the interruptions occur; timing - when the interruptions occur; and cause - why the interruptions occur. In the right hand column we explain why we think knowing this kind of information would help us to do our work of assisting customers find solutions to their problems and assisting Commissioner's, and legislators, and others - the general public - understand what is going on with reliability on the electricity systems. "Frequency," simply tells us how many interruptions have occurred and allows an assessment of whether there are lots of interruptions or not. Again that is subjective, but we need to begin someplace. It allows the tracking of trends - whether interruptions are on the increase or not. When used in indices, for example interruptions per customer, it allows tracking of trends that are more meaningful and easy to grasp, rather than this company had 2,000 interruptions, it had 1.2 interruptions per customer. Duration - how long interruptions last. This tells us how long customers are interrupted and allows an assessment of whether customers are without service a long time or not, again subjective. It allows tracking of trends, whether the length of time customers are without service is increasing or not. When used in indices, for example, hours of interruption per customer, it allows tracking of trends that are more meaningful and easy to grasp. Location - tells staff where interruptions are occurring, and allows analysis of patterns to see whether service is being interrupted in

areas where there are good explanations or not. It allows staff to ask about steps the company is taking to address areas experiencing the greatest reliability problems, allows staff to consider whether service is equitable. When documented at a high level of detail, such as for the individual customer, it allows staff to assess adequacy for the individual customers as well as for the system or a sub-part of the system. Timing - when interruptions occur, tells staff when interruptions are occurring, allows analysis of patterns to see whether service is being interrupted when there are good explanations for it, such as during winter storms, and so forth. Cause - why interruptions occur, tells staff why interruptions are occurring. Allows assessment of whether or not there are good reasons for the interruptions. Again, for example, storms. Allows analysis of patterns to see what are the primary causes of interruptions and whether what the company is doing to address them is reasonable. So before we go on to the second table we would like comments from you about whether we're way off in the wrong ballpark or whether this is, in general terms, the kinds of information that makes sense for us to have. What shouldn't be here? What's missing?

HC: (comments not clear on tape) ...general concern, when you look at this information and you're trying improvements that need to be made. This is information that engineers would use in determining what sort of improvements need to be made to the system. To me that's what you have a bunch of engineers doing, you need some sort of metric whether we're being responsive. I'm not sure this allows you that kind of look at the system. When you have determined a pattern and something needs to be done I'm not sure that this allows....This is exactly have something that we need to be fixing. And it's.....

DT: (comments not clear on tape) I guess to follow-up on that when you talk about engineers working on the system. Could you also include, consider workers who are on the front line who actually .....

MA: Heidi, if this is not the kind of information that we need, what is the kind of information that we need?

HC: (comments not clear on tape) That's a good question. I'm not sure that I have that answer, but this is the exact information that we use to manage the system and move that system to a more reliable in order to determine what exactly is happening with silicon injection. And hopefully the review that you are doing and implementing the right changes.....

GS: I think in line with both your questions I think we're maybe missing something that should be above. Why would this information help staff do their work? For what purpose? What are you trying to accomplish once it has all this information, what can it do with it? That's her point is that they're doing it, now you have it so what's the point?

Maybe there's a step above this that says what are you trying to accomplish with having this information? Other than having information.

MA: Heidi, let me try and tie these two together. Are you concerned that we are going to be using this information in sort of the static sense? That you're going to be reporting it to us on an annual basis, or whatever, and it's going to be sitting there just for us to look at and make decisions what we're going to do, when you've come to us, or we've come to you about a problem area, where we've got some complaints in an area or something like that...or you come to us with a program concern or something you'd like to do? I think, that to some degree, this is the kind of information that you attempt to provide us. When we looked at Whidbey or just whatever, in some cases you could and could not provide, for example, SAIDI and SAIFI at a sub-circuit level. But we did ask, what were the number of interruptions you had and how long did they last and what were the causes? And so while, yes, this is the kind of information that the engineers are using to attempt to make decisions on how to address the system, it's also similar to questions that we have asked in the past. And is that not appropriate? Is that not correct? Is there something else we should be asking? That's why I'm asking if whether your concern was whether the information was just going to be given in static or not. We kind of ask for this information, in particular instances, on a regular basis. And five years ago or three years ago you couldn't give us as much and now you can give us more. So I'm wondering about that.

HC: (comments not clear on tape) For PSE the question is not whether or not we are willing to provide it, we are willing to provide whatever information and explanation and give you some understanding where the distribution system is what customer is like. All I'm concerned about is that this is kind of highly repetitive doesn't seem like...I guess I was feeling your request of whether we're providing safe, adequate and reliable service....This just feels like the same sort of analysis that we do....to the extent that there's redundancy...it seems that our customers may pay extra costs.....

MA: Karl was saying earlier he would prefer that we use the kind of information that you're already gathering and report to us out of that body of data rather than be asking questions that cause you to generate new data. My understanding is that your capability is increasing to allow you to answer some of these questions in more detail and with more accuracy than you've been able to do in the past. I'm not quite sure whether that's a contradiction or not. I think if we can we would prefer to have reported to us information that is what you are already gathering. So the additional cost is in the reporting? Is that what you're concerned about?

HC: (comments not clear on tape) I was assuming that you would be looking at the same data. About how to improve our process.

MS: I just want to make sure you understand, Mark, I think what Heidi is trying to get at is, if you have two people collecting the same data, the question is who is the customer to call to fix the problem? Are they going to call the Utility Commission or they should be calling us? I think we want to make sure that we're providing service to our customers and they don't get mixed signals. If you have all this information, who are the right people to call? The problem is who's going to provide service. We want to be the first person. If we're not providing that kind of service the overriding, overview is where we think is your better role. Not the detailed information of what's going on. I think Heidi is trying to get at a management question of if you have redundancy of effort, you don't need one of us.

MA: I wouldn't begin to think that the effort here would even begin to be redundant.

HC: (comments not clear on tape) It seems like there are some metrics... whether metric that might be indicators of how we're meeting our responsibility. Instead of you guys looking at our same data as we are you're trying to draw some conclusions about how well and whether we're meeting our responsibilities. Maybe there's a different measurement....

MA: I think it's already been said and I would tend to agree that there are multiple measures out there. There are some quantitative measurements and there are some qualitative measurements.

MS:(?) I guess if I was the utility I would be more concerned about the Commission working with a different set of information and making judgments based on that. But I would be more comfortable with them working on the same information that I'm working on. So, to the extent that you think that this is something that you don't want to provide or you don't want to be assessed by, but it's the things that you're using to assess your own performance, I think...

MS: We've always provided this information, it's not a problem providing the information. We will open the books at any time, that's not the question. We will always give the information. The question is of how you use the information and what purpose you use the information for and I think that's the bigger question.

MS:(?) My understanding of the purpose of having the information is that at some point the Commission may or may not want to look at your performance. And it's going to be probably a passive effect. They're not going to look at your performance before... It's hard for me to see how that would be bad. The question is do you want them working with the same data that you're working with? Or do you want them working with different data?

GS: I don't think they ever said different data. They were saying right from the beginning the same data, we'll furnish information, which they're already doing and I think you said the same thing. My point is, it's almost like, who collects the data for what purpose. If you're collecting it and you have it and you can give it to them when they want it, then why are they collecting it all the time if there's two people collecting the same data?

MA: First off, there are different kinds of data that have been provided and have not been provided. This kind of detail, frequency of interruptions, duration of interruptions, has been reported to us very differently from each of the utilities in the past. Even from PSE's perspective, you say that provide us with the data. You provide us with the data that you have. It has not always been to a very complete level of detail in terms of causation, timing and location and duration of frequency. It's getting better. But when you say you've always provided this data it is simply not true. You've provided what you have and while that is good, you can't provide what you don't have, the question is whether you can provide more at some point in the future of this kind of data. And so we're looking here, not simply at one utility what they can provide, but were looking at what all the electric companies can provide. And we're not even looking at one utility has provided in the past, it's what they can provide over time that will provide us the information that we need. That still doesn't get to your question. We do not want to do the same analysis on the same scope as the utilities are doing, by that redundant sense by any stretch of the imagination. But, we do want to understand what information you're basing your decisions on. What analysis you are going though on that data to make your decisions based upon, and what decisions you are making based upon that analysis. We are not interested in going into all the data you have everywhere and for any of the utilities and second guessing all your decisions, looking at all your data and all your places and seeing whether you're doing this in this neighborhood and that in that neighborhood what the whole thing looks like in the budget and so forth. But, for a couple of reasons, in a general sense we want to know what's going on you systems and then if we have concerns about any one area based upon complaints or for any other purpose, we would like to be able to go in and see again, the same kinds of things that you are doing. What's your data say and what did you do with it and how are you responding? That seems reasonable to me. And so we can say to customers and to legislators and to the Commissioners, here's what the data shows. Here's the analysis they used, here's the decision they're making, yes this does seem very reasonable or not for some reason, then we pursue it a little further. And potentially to go in at any one time and to just look at an area and say, well, what's going on in this area and does it reflect what you have told us before? Absolutely not to re-do what they're doing, but to be able to go in on occasion as different needs require us to do so and it is the same stuff that you are looking at that we would like to be able to look at. In general it is these kinds of things, I think, is the kind thing you're looking at and that we would like to be able to look at and the question is to what level of detail and what are the definitions of these things and so forth. To add to other measures as well.

GS: You're kind of looking for basically a laundry list of items that you'd expect every utility to have if you went in and asked them for the information. That they would keep records of this, whether it's in a different form here than it is here, but all the standard information that you need is going to be there when you ask for the information.

MA: That would be fine to put it into those terms. Laundry list is not quite the right term. At least we are thinking that it is this kind of information, that if we can get in a sufficient level of detail and to sufficient level of accuracy, that as the utility reports to us, or we go to the utility and request information about a certain area, that by having this kind of information we can make the assessment that we need to about adequacy of the system. Maybe that's not correct, which is why we're here actually.

MS: We first off give you all the information we have. If the information has not been sufficient, I have not heard from you where it has been deficient. So I'm a little bit puzzled by this whole discussion of you're not getting enough of the information from us. That's not our intent. I don't think it ever was our intent. When you talk about cause of an interruption, you've got linemen here that will tell you, you can drive for hours looking for causes of interruptions and never find them. Because the bird or the animal fell in the bushes. You can't find the bird or the animal. So, I don't know what you're trying to get at. My feeling is that we're feeling like we're being asked to provide something, that if we've been doing it wrong, we should have been told all along as opposed to being told here that we're not giving you the information.

MA: That is in my mind at least part of why we're here. It's not that it was wrong what you gave us at the time because you explained to us the capabilities of your system, you explained to us what it would cost to create different kinds of information and so forth. So, it was fine what you gave us. It did not necessarily meet the test of what we felt we needed to know. And that's in part why we are here today, to talk about what level of detail, what amount of information, what kinds of information, do we want from all the utilities to report to us to get us to that point where we can feel comfortable making assessments that we need to.

MS: We'll be glad to provide that information.

SH: We don't have a problem. We want you to feel comfortable that we're taking care of business. We have an issue with the level of detail. At the customer level we want to keep the analysis at the circuit level and above. If there's a specific customer that has a problem then we can target them with a voltage recorder or whatever, but to try to maintain a record on every customer beforehand, we feel that's too onerous we don't have those systems in place so there would be some costs. That's the issue we have.

MA: In our discussions with Alec so far, my understanding was that in 18 months

approximately, you would actually be able to track to approximately the transformer level, might be five or ten customers. Is that true?

GK: Outage reporting at a high level comes from a recording of individual incidents and recording each fault that happens at the time and collecting information. That is then rolled up to a fairly high level of the SAIDI's and the SAIFI's which provide an overall analysis of how the company is doing trending over time. If you start breaking that down into the level of detail in terms of trying to look at it circuit, sub-circuit, customer levels, two things happen. The cost in terms of investing and reporting systems to do that, increases considerably once you go down to that level of detail. Also, at that level of detail, the information that comes out of the systems becomes, I won't say less accurate, but subject to more interpretations for a number of issues that we've already discussed this morning in terms of how you define definitions, whether that was five customers or using a different definition, six customers off. That doesn't move away from the requirement to investigate particular problems if a customer is experiencing problems with the power supply to their property and what the company is doing to look at that . But it's somewhat different from high level performance figures that would say this customer's quantifiable number of level of service and that is different.

RK: I guess from consumer affairs standpoint our need for information is a little bit different than Commission-wide, because we kind of are concerned more from a customer or community level as opposed to a broader, upper echelon type of a look at things. I'm not sure exactly how to get to it, if there is a community problem certainly some of this information that would be available, such as at the circuit level, or whatever you would have, would help determine whether or not there's a chronic problem and what the company is doing is about fixing a chronic problem in any particular community.

CR: One of my jobs is managing the consumer appeal line at PacifiCorp where we take commission complaints and complaints from customers and I guess how we like to run our complaint line is to be very pro-active and work very closely with customers and commissions. For example if a commission sees a problem in a certain area we encourage them to call us and we start the investigation in liaison with our operations people. This is kind of a gift to us actually to hear about an issue and be able to take care of it. I don't know that, we do that on a regular basis, and that's something that we would want to keep on doing with our commissions and our customers. But I don't see where providing all this information gets at what you're trying to get at necessarily. And you've got 10,000 pieces of information and you just need one. So maybe we need to work a process better to insure that the complaint analysis we give you is what you want. Perhaps you need a year of detail of certain circuits and you have a certain format that you have that detailed information in and that's what you want from all utilities. Maybe we get to more of a standardized response and over a year or two years information. Maybe we get to it at a different way, I'm not sure.

MA: I've talked with Roger quite a bit over the last two years, and when he has complaints that relate to reliability he generally puts them in an e-mail to me and lets me see them so I have a sense of what's going on. It seems that from his perspective a lower level of detail is helpful so that he can at least say to a customer, here's what you're situation is in general, they may or may not know how many outages they've had as an exact customer, but on your circuit this is what you're experiencing. If he could have something to give customers a sense of what that animal is, whether it falls in line with the average that's going on in the utility or not, and if not then if he could call up the utility and say, look, your average is this, here's what's going on generally on your system. Here's a system where they appear to be having these kinds of problems can you explain to me why and what it is you are doing about that? So that while we may have some general differences and from a broader perspective of attempting to assess in general what is going on with reliability on your systems, when it comes to a specific customer in a specific community, there is a little bit of a different need. We are trying, in this process, to determine whether or not we can meet the various needs of staff and not just one.

DT: (comments not clear on tape) When we start talking about details and level of information, how far down the food chain we go, the automated meter reading system seems to be a real good... you've got in place the information that is already coming to the utility... I'm told eventually from meters to the internet. So there's an avenue there that seems to be real simple and easy to move that information..

MA: I think it should be fairly simple and easy to move that information from PSE to us. But I'm not sure it would be simple and easy to move from PacifiCorp or Avista to us.

DK: Something that I was thinking about and it goes back to Heidi's initial comment about redundancy of analysis and some of the comment here with Roger and Mark on access to information for Commission Staff. I believe that part of our interest is trying to be able to respond when we have inquires from customers. As a customer I may call in and say, I have a belief that my service at my home is not what I believe should be adequate. I've got these experiences and this adds up to my belief of where I'm at. I've tried to talk to the utility, but they say that they only measure it at the sub-station level so they can't even get to where I'm at other than in a very broad piece of geography and I don't feel that's adequate as a customer, perhaps. So then that kind of question comes in to perhaps, Roger and the Commission is trying to deal with how do we dig down any further? We go back to the company and we talk to you about what kind of measurements you make and however you measure you've got your system set up, you've decided what level of granularity you need and either does or does not address this customer's problem. But we've still got a customer that's trying to seek this. How do we work together, not a duplicate effort? A communications tool and we have in our system this. So this is kind of where we're trying to go. How do we work to solutions for this customer and I don't think what we need to do is to have a duplicate analysis or

reporting system here at the Commission as you do at the companies. I think what we need to do is have a communications tool such that when we want to get to that we can go to you and you can say fine, we have in our system the kind of automatic reporting or report generation capability, we'll run that for you, we'll get it out and we'll see where we can go from there. If we don't have some agreement on what's a reasonable level of granularity, then if we call you and say we've got this customer or we've got these group of customers that have a perception about their service as being a problem and your response back to us is that we'd really love to be able to do some analysis on that but we can't get there because we don't have that information. I think that's where we sort of butt heads. I believe you Mike, you say we'll give you whatever we've got, but if yours is at not a very detailed level of granularity, and that's where we're trying to get, you're going to give us what you have but it doesn't do the job. I'm not saying that every company needs to have customer level detail, and I'm not saying that any company has to have customer level detail, but we have to have some methodology for being able to address trends or look at how do we answer those questions. So I guess that's sort of the question that we're posing back out. Are some of these measures the kinds of things that you guy measure? What level of granularity do you measure these things at? Do we all agree, or can we all agree that at some level it's reasonable or it's now we all say, yes we've gone too far and that's too much?

MS: I'd like to agree with 100% of what you've said but I'd like to go back to what Carol's comment was. I think we're talking about process here, not a level of detail. I think if we have a process that we all can agree upon, it would be a lot easier for us all. Right now we're into the minutia of what we want to report and we're really not in to what the process is to resolve the problem for the customer. It think we want to move in that direction, how do we resolve issues and problems and get away from recording data for data's sake and not get into solving the customer's problem. That's kind of what I think Carol said and think we want to get back to that theme. We want to solve problems. If we look at how much time we spend gathering data, we gather too much data, we don't spend enough of the time doing something with the data in making those kinds of decisions. If we can get to that level and agree upon it, everybody here at the table will move forward. Our concern is that the data analysis leads to paralysis.

GK: In terms we are going with reliability reporting systems we are certainly aiming for the system that will, if there's a problem with the customer, identify the outages that that customer has had so we can respond to any customer issues that they have. What I don't see provides helpfulness for the customer is telling them that their SAIDI is 305 against the company average of 300 because that's not meaningful information at the customer level. What's important is knowing the outage that occurred and the causes and that's the end we're working towards.

MA: You said a moment ago, however, that you didn't want to track that information at even

the circuit level and yet you're also saying, right now, you can determine how many outages that customer has had. Somehow there's either a definition problem or there's something that I'm not understanding.

GK: It probably gets into more complex issues about how you're using databases that would hold outage information and how that information is recorded. Certainly you can record information that will let you show for a particular circuit all the faults you have recorded on it and from that determine which faults would effect the customers. A very different database that would come from one that would calculate for each individual customer a SAIDI number and I think you've got to recognize that each of these systems are different levels of detail and different investment required to produce these systems.

RK: Do you keep trouble report data on any area at any level of detail? When people call in for trouble, how is that recorded and how do you keep that data? Is it by circuit? Also, customer calls that come in to your call center for problems that they have? I guess eventually their referred to the trouble desk or whatever you've got and then some record is kept of that. Does that get fed into trying to identify a problem area or a specific circuit that needs attention?

CR: We have an outage reporting system that all this data, the trouble calls, that all the data gets fed into. That system is being improved as we speak. What we currently do if we get an issue with a customer, they're having several outages and they're concerned and their neighbor has several outages too, what we do is a review of the outages on that circuit. We talk to the engineer out in the local area and we try to determine together what the problem is for that customer and we report back to that customer, either through the Commission, just the outage that they've experienced within the last year and the times, and causes, to the degree that we have that information in our system. Does that answer your question?

RK: I was just trying to determine whether that might be useful information for me to ask on a regular basis to see how many trouble reports you've had off of a particular circuit. And what the company has done or to even request to copies of the trouble reports. I want to be able to ask the right questions to get to resolution, that's all.

CR: We do some more of this work in one of our other states where we have sort of a detailed checklist of this type of complaint and what the information they might be seeking. What makes sense. And we'd be happy to work with you share that information so we can get at the information that you needed that the customer needs, instead of extraneous information that maybe you don't need, if that would be helpful.

GK(?): (comments not clear on tape) If you generate a trouble ticket basically you are gathering all the information that they're looking for right now as far as grid

number, all the way down ..... Wouldn't it just be a program you could pull that up and make a database they wanted, say specific block that has had the same problem four or five times in a row. Off of that ticket that you're generating, you already gathered all the information. You know what substation it was coming from, what circuit number it's on, what transformer it's coming off if it's coming off of so and so residence that you billing. It's more than just a manipulation of your software than anything. You're already gathering that information basically is what I'm saying.

GK: Again that's probably down to more business processes and system design. At the front end on a call center that would take the calls from customers regarding faults and collect information about faults, would not necessarily be the same system which records the status of the network. So, the actual information of what customers have called in related to which individual fault recorded against fault which could be reported on an annul basis wouldn't necessarily flow.

MS: Mark you spent a day with us about August time frame. Doug, you had asked him to go through and look at our outage gathering process. We put a whole paper together for you guys on that and I'm more interested in has that been shared with Roger? Are we educating you and you're not sharing that? That's kind of my comment. Because he was getting at some of those things that we gave you a whole day discussion on how we go from the telephone system and the AMR system all the way through and each one of the checking points and we went through the divisions and how that's all laid in together. That's not something that we have not, we'd be willing to share that stuff, it's something that we really, if there's anything that we can do to help this process we'd be glad to do it. I don't think that's really the intent. We want to make sure if Roger hasn't seen that I'd be glad to sit down with Roger or anybody to go through this process, it's really simple. We feel it's open for anybody to see.

MA: I actually think that would be a good idea that addresses that specific concern.

MS: Because if this is the genesis of the rulemaking this is really not that hard to change.

MA: It is part of the genesis of the rulemaking.

MS: If that's the driving force. Let's just do that. It's not that hard to do.

MA: The customer complaints and your trouble order tracking that is related to customer complaints, individual customer complaints, that he is going to see is going to be somewhat a different data set than tracking all the interruptions that you have. We definitely want to handle both aspects in the process.

GS: It sounds to me like that we've sort of shifted gears here from engineering and technical and information gathering and definition now to the consumer side and how do we resolve communication. Basically what I'm hearing is that it's a communication problem or communication resolution or something which deals with problem solving - how are we going to solve the problem? And how do we communicate the information that maybe didn't get resolved at the utility level so it goes to the Commission because the complaint is still there so how do they go back to you to find out the information to answer the question of the consumer? And is the information there that they now can resolve the issue? It's a communications deal and it's a problem solving thing, it's not definition of terms or anything else.

MA: It is not a single task that the staff has. To the degree that we've turned to address that one, you're right, it may be more of a communication problem than the other issue. But Roger you have contacted all of the utilities at one time or another to ask for data that will give you information both on the interruptions that individual customers had and on the circuit or community or whatever that is going on there. My understanding is that you have not found satisfaction in the answers that you have received and you're right, it could be a communication problem and the right question hasn't been asked or something of that sort. But I know Roger you have been trying for a long time to find out how many outages has.....(turned tape over)

RK: I guess the frustration lies in the fact the maybe I'm not asking the right questions. Maybe some of the information here might be helpful to get to the bottom of the problem because, I go so far in the investigation and it stops dead - until more consumers call in. That's my earlier comment that there seems to be a threshold as the number of consumers climb in a particular area that call into the Commission, then we can address the problem. I don't think that should have to be. We should be able to address it when the first one calls in and get to the level of detail. But maybe the company doesn't have that information and maybe it takes all these consumer complaints at the Commission level to finally get resolution for a particular community, I don't know.

BF: I'm looking at the ground rules and one rule is don't take comments personally. But when it comes to Mark's question of you Roger it was the omnibus, all utilities. Has Avista, is there some communication devices that we should be doing between our complaint group and you or have there been problems there that we should be aware of? Without me taking this too personally?

RK: No

MA: Graham, I had a question about what you said earlier. It seemed that you were indicating that you had in your database a capability to go in and find the outages that would have affected any one customer and therefore in essence to develop a SAIDI and a SAIFI for

that individual customer, but it would take a database that would require you, for example, to search and do that. You said it would be a different database that would allow you to generate a SAIDI and a SAIFI for every individual customer. I guess my question is, is it really the same animal and what you mean is that it would just be a huge task to do that or is it that the information about that individual customer's outages and the interruptions and the durations of interruptions and so forth, is that really a different animal than what would be calculated for each individual customer?

GK: Looking at the outages for the individual customer to be recorded in the data base will give information as to what that particular issue is for the customer and that may include things such as partial faults, if only one phase has gone down, issues like that. What it wouldn't do then is calculate the SAIDI and SAIFI for an individual customer. Running a reporting regime where that's calculated across the board down to a level of detail is a different database because it's the system that will interrogate your data base to provide that level of information.

MA: What exactly is the information you have about that one particular customer. Is it in essence the full number of interruptions that customer has had and the duration of those outages so indeed you actually have a SAIDI and SAIFI for that one customer?

GK: How the majority of systems work and as I say we're moving forward on a new system. It's still being reviewed and still being worked on. What systems would generally would produce would be a list of outages at the circuit level that would potentially effect customers. Then what becomes the manual task is to go out there and look at where the customer is on that circuit. Look at the outages that have occurred on that circuit and determine what outages would affect that customer. That will then give you the faults that effect that customer during the year which can allow you to carry out some analysis. There is always a manual intervention in that process. You can look at the individual customers but what the system wouldn't automatically do is calculate for each customer and press a button and there's a list of outages.

MA: So it is the same animal but it's a....

GK: Same animal but it's the level of functionality.

??: Down from the top instead of up from the bottom.

MA: My guess is that is what Alec meant when he said you would be able to track that information at that level. But I didn't ask the right question, which is then will you then be able to calculate, at that level, across your system by pushing a button?

ML: The SAIDI and SAIFI, those are by definition system average for frequency interruption.

They're calculated on a system so when you say for an individual customer, that really doesn't really mean anything. You're looking at that particular customer's SAIFI on a particular system, say their feeder or say their region or say their system whole. But to say this customers SAIFI is such and such and the customer right next door to him is some other different number I don't think you could ever, unless I don't understand how this index is calculated, is calculated on a particular system.

MA: The index actually can be applied at different levels. System generally means full system.

ML: It could be a full system but it could be even a feeder. So that would be a lower level system.

MA: Is that a SAIDI and a SAIFI too? What is the lowest level that you can go to? I'm not sure that...

ML: I don't see how you could go any lower than a feeder to calculate that particular, those numbers. I don't see how they can make sense on anything lower.

MA: Will you not have that for the individual customers through the, I mean you won't have an average, you'll have the individual customer's interruptions and duration of those interruptions.

DD: I understand at looking at the individual customer, but then to get sense of say how a company serves the city of Seattle you'd have to look at 3 million of the indices overall to get the overall picture. Let me go back to my telephone background. Right now from U S WEST I get a report every month by exchange of average duration. What we get from you folks, from my understanding we get a system-wide average for a year. I think what we're trying to say in this hearing today is we don't expect you to go to individual customers tomorrow, that's not going to be the rule. I think we're trying to say, what are your capabilities, where do you see it going if we can go to the service area now and in five years maybe to the substation level and then to the circuit level in ten years. I'm not saying where, but we're expecting the expectations to get better and better information, more useful information. At some point maybe down to individual customers. I'm just trying to say that I, from another industry, that I think is a little further down the road than you guys are, not saying that you're a bad industry, just that's the way you work now on the bus arrangement or whatever. We're just trying to investigate how quickly you should move to finer detail to give us more information for all of us.

GS: Let me say from the perspective of the consumer again and I think that that's the critical issue. What does to consumer want for information to solve the problem? Not what anybody else wants. What does the consumer want for an answer from you?. It's not

SAIDI's or SAIFI's or a bunch of acronyms it's basically I got a problem the power keeps going out, when are you going to get the darn thing fixed? I don't want to have to deal with this anymore. Whatever other questions they have so whatever information that answers that is what you need. It's not a bunch of other stuff, it's basically how to I solve the problem for the customer? Whether it's a businessman or an individual owner. That's the information you need. I go to PSE and they say, here's the information they've been out three hours six times. What are we doing to correct the problem? How soon is it going to be fixed so it doesn't happen any more. It doesn't make any difference where it is in the state. How do you get to that?

KK: I think one of the problems that we're dealing with here is this is a lot of data that appears to tell you a lot of things about what's going on in the system. But one of the problems we're dealing with is data by itself is just data. We can have all kinds of data on the table about all the different companies and the different circuits and by itself it's just a very dangerous thing, it's hard to draw a lot of conclusions without doing a lot of analysis and having some engineering analysis and some people that are familiar with the system that's in place. It would be difficult to draw a lot of conclusions from this kind of data all by itself. In order to be of value it needs to be analyzed and scrubbed and some analysis has to be put behind it. Going back to Heidi's point, this is the kind of work that our engineers are doing today, is what they're looking at, especially when they get into a problem area, once there's a problem they study it and they come up with their own conclusions as to what's wrong with it. The company, in the past, when a number of complaints have come in about a certain area, has pulled together data and done an extensive analysis in order to make any sense out of that data and made presentations to the staff and given them reports to the communities involved. It seems like it's the company that you're going to ultimately go to interpret the data. Again I think it's more than just being redundant, it's a lot of effort that goes into making any sense out of this kind of data.

GS: I'm not sure where the issue that I talked to you about comes up. I don't know if this is the place or not, but I think once you determine what the problem is and whether it's solved or not then you have the next thing which is accountability. That's really the reason that I'm here and problem I have. I'm not sure how this fits legalese-wise. But I specifically had a problem with the location over here I think four or five times and I think a number of other people in this area had a problem, four or five times this summer in the middle of the summer, with power outages that shut us all down. No storm nor outside problems. It was an equipment failure. I have a problem as a businessman where companies don't take responsibility for their equipment and according to whatever I was sent, power companies are not responsible for equipment failure. They're responsible for switching errors. But if their equipment fails they're not accountable, they're not responsible. I look at this as a businessman, I look at it sort of as a morality issue and an ethical issue as a businessman, if I serve you a bad product and you come to me and say

this is a bad product, I wouldn't expect you to accept the explanation that, "well, call my supplier." It's not my problem. I didn't choose the supplier. You chose the supplier. It's my responsibility as the front line furnisher of the product, whether it be energy or whatever the product is to take care of my customers. It's also my responsibility to hold my suppliers feet to the fire. So that I'm the one that who's responsible to tell my meat supplier or cheese supplier that the quality is not good. Or whether it's the cable supplier the circuit breaker supplier or whatever it is. I have a real problem with a system where companies are not accountable for their own equipment. Where they say it's not our fault. I don't know if that takes us to whole other area or whether it was the right place to bring it up but that's the reason that I'm here.

BT: In looking at some of the information that you've provided in general information, I look at the things that were on the table by your staff and I think they're right on. Back to the customer level again. I don't think there's anything in these bullets on table one that is difficult for any agency to keep in the way of record information that may be shared with people like the UTC or even the individual customer if not multiple customers about what's going on in a given area, especially if it's repetitive to the point where the customer complains about it. It's simple and at that point in time if these simple bullets are carried out and they're looked at and further analysis is needed then you can go into different areas of analysis. But some of this stuff where we work at the city we track some of this same information from a customer response in the city for something as simple as a pot hole, to a dirty water complaint, or limbs blocking a stop sign. We keep all this same information when they call it in. If we get two or three calls on the same incident, we're not doing our job right. I think the complaint you're getting from the public is, this is something that's happening on a frequency basis that begins to get them angry and the integrity of the user supplying them is now got to they don't believe what they're being told or they're not being told enough information. We're working on the problem. We're working on the problem. We don't know why it's failed. I think it's a level of integrity and without attacking anybody, as mentioned earlier about personalities, I think some of the information on the first table is dead on, it's right on. That information can be derived at a more extensive level if more investigation needs to be made. Sometimes I think we need to realize that we are in the age of computers and we have a far more educated customer than what we had fifteen or twenty years ago. Sometimes they just want to know why. Don't lie to them, tell them something, but tell them something that makes sense. Don't tell them I don't know. Or I don't know why it's broken for the fourth time or why it's failing five or six time. We don't tell them we don't know. I think what I see even working for a government agency and the city is that people just want to be informed today. It's part of our new process as government and private companies working together, they want to know. I think our integrity level is on the line and I think they deserve an answer if the failure is repetitive enough that they're going to you, the Commission, and say, I got a problem with these folks. I think your first table, I don't think there's anything in there that's a no-brainer to me. Those are all

simple questions that anyone should ask if they have a problem. Where it was, the frequency, the variance, the location, the timing, the reason why. Any right business is going to want to know why it continues to fail. They may not want to share with you what it's going to take to fix it, that gets back in to the other level of detail here on you other tables about man hours and how many people and cost. And I don't know if that's really relevant for us to know that. But somewhere along the line there needs to be some integrity. Why are we even here today about why the customer is complaining? Because they're not happy. I think it's nothing reflected against any utility company. We see the same thing where we work. There's more people that are more informed today and they want to know why.

MA: I'd be interested if any of the companies would care to respond to either of those last two questions or not?

BF: We have something called "Voice of the Customer" which surveys customers on some of their top issues and we hear what the gentlemen from Bremerton said.. Just tell us what the situation is. That's been driving our thinking in the last few years. I think we shared some of that information with staff. I'd just like to second what he is saying. And we hear that and try to respond.

RK: The voice of the customer, how does that work?

BF: It's an ongoing survey where we try to ask the customer what's most important to the customer. They tell us, in rank order, how we should be running our company from their perspective, based on what they want to hear. We break that down by business and residential and it's a management tool to basically do what the gentlemen from Bremerton said. One of the key things we keep hearing is, simply tell us. We're smart, informed customers, don't hide things, just tell us what the problem is and they would understand.

RK: Doing the surveys are kind of expensive aren't they? So do you target certain problem areas or is it just sent out to all of your customers? How do you do the survey?

BF: It's a survey that we do quarterly. It's done in-house by our market research and it's done on a random basis, random survey.

CR: As long as Avista made a public service announcement, I'll have to say that PacfiCorp also does surveys, in fact we provided some to Washington staff, the results of those surveys. Clearly reliability is one of the key items that customers are interested in. We've also developed a performance standard program for customers that has seven performance standards in it and eight customer guarantees that give customers credit for failure to respond to power quality complaints, for example, turning on their power, or

making an appointment, those types of things. We've spent a great deal of time and money and effort in implementing that and it just kicked off on February 29. That's one of the things that we see geared directly toward the customer.

EE: Since we're talking about customer satisfaction and performance, it's probably a good time to remind people of the service quality index that we file every year. The standard will help to ensure customer satisfaction we do the survey. I think our benchmark is 90% and the last review period we were at 92% customer satisfaction. So you can see the benchmark there. We keep track of the same level of complaints that the Commission receives and the benchmark there is .5 customer complaints per thousand customers and we're actually at .3, so we're under that benchmark.

MA: That ends in 2001? Is that correct?

MS: It ends in a year

MS: I'd also point out that we've done the tree watch program plus the silicon injection so that there are a lot of other initiatives that we've sort of taken on to meet specific reliability problems that we think are necessary to address concerns. So I think part of this goes back to the original question of what are we going to do with all this information. We don't necessarily mind providing the information, we just want to know how does this help us answer the customers questions better. It's kind of like we're really struggling with where we're going to go with mounds of data. That's the bigger problem that we're looking at. Because we just get caught up in this, we're gathering all this information and we're not really doing anything with it.

MA: You're saying you're gathering information now and you're not doing anything with it?

MS: We'd be giving it to you and that would be fulfilling our requirements and we're really not fulfilling anyone's requirements by just gathering data. I think the question is how do we resolve issues and I think the bigger question is how's the process. If the SQI's are not there, if the PBR question is not there, what are we trying to get towards?

MA: Process is a big part of it and I'd like to have you explain what you mean by that. At the same time it's not simply one problem that we're trying to solve out there. Customers with their concerns are part of it. Commissioner's and their desire to know what's going on is a part of it as well as legislators and potentially the public in general. There's several different customers in essence that we have, if you will, that we need to deal with as well. What solves the problems for one may or may not solve the problem for someone else. In any case I would not think we would want to be creating data for data's sake either. Which is why I tried to say earlier we would prefer to be able to draw from what you already do and not redo your task but be able to peer in and understand what it

is you are doing. But it also has to have a certain kind of meaning. Bob, you spoke about how simple it ought to be to keep this information. Well in a general sense I think I agree with you, but part of what we've seen just in talking about definitions and how numbers are kept, we've had some real questions about what level of accuracy are we getting in terms of frequency of interruptions. What level of accuracy in terms of duration. We've seen companies estimate their own accuracy at greater than plus or minus 25%. It is potentially difficult to track a trend upward or downward when you have that great a discrepancy. I think that was the percentage in the example that you gave. How do you follow a trend when you've got that much squish in the data? So while it may be simple conceptually, yes these are the things we ought to know, are we really getting accuracy and the level of detail that will allow us to do anything with this information. And if not, it may be better not to have any than to have information that is data for data's sake and isn't helpful. It both deals with power quality as well as interruptions. And it is an issue that I thought we might get more into in terms of power quality. But I think it's something that we are interested in pursuing down the road, what is the responsibility of companies for there equipment and so forth. The electric companies have chosen at this point not to respond here. Regarding your statement about your belief that they should be responsible for their own equipment - I was not planning to go there today and don't think I'm going to push that but it is something that we have talked about and need to ask in the future. Probably in the context of either looking at maintenance actions, activities and so forth, vegetation management activities if we get to more programmatic level of information or in the power quality discussion which we're not looking at today.

GS: I appreciate that answer. The other thing I have is, I'm kind of like an outsider in this in watching what's going on here which is kind of an interesting perspective. I think what I'd like to see is to help out the companies to answer the question you have is actually a list, or their trying to answer questions that they don't know what the question is. It's like what kinds of things, like you said you've got the Commission who has certain questions, the legislature has certain questions. What are those questions? Consumers have questions. What are the things you are trying to resolve, what are the Commission things you're trying to resolve? They're kind of shooting in the dark furnishing information for questions they don't know what they are. I think it would be helpful if there was an outline that said these are the things that we need to be able to answer and we need to be able to come to you, the companies, and get this information so when we've got these questions we can resolve them.

DK: This is a good question and one that been raised in the past and we've talked about a little bit. When we started this out we started with some questions about what is it that we need to know and one of the things is the reliability for customers, in general, adequate? That's something that we need to know. Then we go from there into more detail about reliability for specific customers, is that adequate? So there's a large gradation there of

what's a question that we would go to the companies on. And, as I said, there is some information, I think it's on our website, about this reliability rulemaking that was this general premise to start with. And another one of those is what is the on-going level of reliability? And is it changing over time? Do we get to a point where three or four years down the road suddenly we all agree that there is some problem and the question comes back to the Commission or the Commission staff, why weren't you watching this to see that it was changing? So having some ability to look at what's happening on an on-going basis gives us that ability to answer those questions. A third one that is a big unknown, and I don't know that anybody has figured out how to get our arms around it at this point, is what is the industry going to look like in a few years? What are the responsibilities on the companies going to be in a few years, with regard to customers? If customers have an option to select their own supplier of energy and the companies have an obligation to deliver that energy, is there a different relationship that they then have with their customers regarding the kind of thing they need to deliver, the kind of reliability or even options for services that they might sell to customers? Are those things going to change? Nobody knows the answers to those. We all kind of have a general feeling that yes, there's going to be some change. We don't know what the end point is going to be and we're not even sure what the timing is going to be that might take us there. So those are generally some of the kinds of questions that we are trying to get our arms around, and one of the ways of answering or getting some indication about those, has to do with these kinds of numbers which again going back to what the industry has for it's own standard mechanisms for metrics. We've tried not to re-invent the wheel, but to go with these IEEE definitions and things like that because that's the kind of thing that the company has been doing for years and years. So we're trying to use that as a launching point rather than making a big right turn here and saying we're going to go a whole new way. I hope that makes a little bit of sense.

MA: I think that Michael got to it at one point when he said in the same way that we have been talking about defining the terms this morning. In our effort to assess adequacy whether the systems in general are providing adequate service as Doug just said and as he added whether they're providing adequate service to an individual. What's the definition of adequate? We have no legislative guidance on that. I don't believe we have specific Commission guidance on that. We do have a history of what we've done in the past and it has been basically dealing with each utility on an individual basis and individual programs and so forth and have only recently began to look at indices that might help us understand better what is going on out there and help us determine, or assess adequacy and in the process of doing that we're finding out that the numbers are really squishy and we're not sure, are these really helping us to understand what is going on here, let alone assess adequacy. As Karl said it is a big challenge to do that. We're looking to see if there are some ways, because of information technology improvements here and so forth, that can help us get a better handle on that and do a better job especially as we look at changes in the industry in the future and to see whether, as Doug said, things are going

up are down.

BF: I'd like to follow up on what Glen said in terms of what the questions are that you may have. I think Doug couched it pretty well in terms of industry changes and the Commission needs to be prepared as that happens, but I'd like to add something Michael mentioned earlier about weather normalization. If we were to remove the effect of douglas firs and wind in this state, which would be predominately on the westside, would we be in this room today talking about reliability?. Is this about storms maybe? Or is this about system integrity irrespective of the variation Michael was referring to earlier?

JS: I think it's about we don't know what it is. We don't know what the direction is. Is it getting better or is it getting worse. In the 6560 study the legislature wanted us to report on what are the trends. We don't have trends. The measurement changes. We cant compare utilities. Maybe we shouldn't. That argument was raised. But we just have not got a lot of regular standardized, easily accessible information in either a time basis or cross utility basis. That's part of the problem.

BF: At the risk of my colleagues respected of course from PacifiCorp suggesting I'm making another self-serving comment - we don't have as many complaints, per capita, on the east side, but if I'm PSE I simply argue that we have that much fewer trees. So I'm wondering if to get to your comment, Jeffrey...

MS: I would argue a little different. One would be to look at it or I went skiing last year up to Switzer. There was a certain outage that took place. There was a perception among the customers in that area, well that's normal, we're living in this certain area, so we expect it, so it's not unusual. But if you go to the south end of Mercer Island where you have a business, I'm sure you're going to get a different level of expectations. So how do you vary this expectation where you have customers that are varying what their expectations of reliability is? Because that's not in any formula. There's price signals here. If you're running a home business and you expect to be running, I bet you should have a generator, because if you want to live in the mountains. Now where do you start dealing with those kinds of issues? Is that really the utilities responsibility because you want to live in the mountains or whether you want to live in an exposed area? You start to peel back the onion here pretty quickly and start saying to yourself, why are we gathering all this data if we really have different perceptions of reliability?

GS: What if my business is in the middle of Olympia and I have to have a generator? As opposed to Switzer?

??: You mentioned that there was no way to track any trends in the past. I was curious what sort of an analysis has been done with complaints to the Commission. I'm assuming there's some sort of historical data base there and what those complaints are. For

example of the 900,000 electric customers there were 463 complaints and only 72 were in regards to reliability. How have you tracked those numbers at the Commission over the course of time?

JS: As part of this rulemaking we're doing a number of background studies. We're looking at what other public service commissions have done and Roger ran a look at the data base of customers and I don't remember exactly what it showed but it seems to me it's increased in recent years, and there's anecdotal evidence. Reading the comments that have come in from the customers, I agree that a lot of these are perceptual issues. Some of them have to do with consumer complaints and consumer handling. But, nevertheless, reliability is an issues that is coming to the front across the nation. I just saw something in the trade press that Congress is going to get involved. We need to be able to say to somebody, at the legislature, the Governor, Congress, or whatever it is, that yes, the system is reliable or is not reliable, here's how we know, here's how we can tell. If it is a perceptual problem or a customer service problem, then that suggests we may need solutions there. We need, first of all, information to know what the problem is and that's in large part what we are doing here. The second part is, what is the information that is available? We just want to know how the utilities, what you get, what is feasible to do? What you track now? That would be the ideal thing. No new systems. What do yo have now that you can get at? Now I seem to hear that getting the data is one thing, crunching the numbers is something else. Well that's good information too. What does it take to get the information into an automated number crunching? I heard Doug say that we may not need this reported to us on a regular basis. We may just need to know it's there if we do need it. That when south Mercer Island calls up and says the power has been out again, that we can say, how's that circuit doing at the closest level of granularity we can get.

MS: (comments not clear on tape) I would just add to Dave's comments about the telecom side because he and I see a lot of service quality stuff on that side. I can look at eight years of monthly reports for any company in the state.....And I can look at major faults. And if there's something that trips, they have a contact, they can call....and what you guys are just starting to get to is a statewide indices and that's a great start, but that doesn't resolve the question that I think I hear from the staff about supposing we have a specific call...on that fault.

DD: You talk about mounds of data, but data's the only way to beat the perception deal. Because the people on south Mercer Island, say, they're the folks that are spoiled rotten, they're going to call the Commission five minutes after their lights go out, versus Jo-Schmo who's mom and dad are both out working, and junior is in school, and if they don't have a digital clock that flashes 12 when they come back in the house, they don't know that they were out for four hours because there's nobody there to know. All they have is a space heater, a hot water heater, and lights, who's to tell. The only way to

combat that is with raw data. It's building data bases and it's just starting the process. If you can have the real data that this service went down for this amount of time and how many people were out and it's because a douglas fir shed a limb. That's what we're going to look at. We're just starting down the road.

??: When we call your one call center or we call somewhere and we call an outage, is there anyone here that can explain to me what happens when you get that? You get a service ticket and what happens after that service ticket called in? What information is gathered on that ticket? How does the process work?

MS: Basically it goes into a trouble order tracking system which the call center takes. They send a ticket automatically out to the region or the area. And the process, they dispatch a service person to the sight. Then that process is also tracked at the system operations if there's any switching that has to go on. Then from that point you've got three kind of tasks going on. One the serviceman, the other at the personal service center and then you've got the switching and inside operations where we call the major operations center keeping track of all three at the same time. They come back together after the serviceperson makes the connection and it goes back and clears out the total system to begin with. So it takes about seven different departments and we worked through this with Mark and we went through kind of a whole day presentation with each one of the departments showing how all that stuff fits together. But basically three or four different groups are involved in one process.

??: Does that service ticket then show who the person was, the equipment that was there, how long they were there, what it cost you, what the cause was?

MS: Not what it costs. Because we may end up getting a crew, we may have a serviceman that does it and they can tell you better than anyone else in the process of finding and outage you could find one problem, what you think is the problem and the it could be something else. So it is different levels of this discussion of what the problem is. A tree may be on the line then all of a sudden you get out there and it's not there anymore.

??: The final analysis on that ticket, is there a remedy section or is there a solution section on that ticket that says without a tree limb we found nothing, turn everything back on. Is there resolution on the ticket?

MS: On a national level 35% to 40% of the trouble problems are unresolved.

??: So if you can't find anything, you turn it back on....

MS: It could be lightening, it could be a squirrel, it could be a tree, you don't know what the real problems are. So you're dealing with unknowns. As soon as you're dealing with

that people aren't satisfied. They want a cause. So guess what Dave does when he fills out a trouble ticket. He fills out it was trees, because he doesn't want to be asked the question, I couldn't find anything.

??: But there's some type a resolution put on that service ticket when you close it out?

MS: Whether it's right or wrong.

??: Whether it's right or wrong, you put something on it? The information is there.

MS: Whether it's the right information or the wrong information, it's put there.

??: I don't think the question is whether it's right or wrong, it's what's the information.

MS: Something is put in the box, yes.

ML: Something is put on the ticket and then it's filed away?

MS: Or else it's verbally told back to the system...

ML: So it's not necessarily in some database that you can go in...

MS: We check off what the cause of the outage is ....

MA: It's different among different utilities.

??: But the data is there. Your saying it's not in the database, but somewhere you've collected, who went there, what vehicle was there, whether an extra crew was called.

MS: We've given them that information in the past. That's not something that we have a problem with. Again, we want to supply that information. That's not the problem.

??: I think that's what the customer want's to hear. I hear what you're saying. If we couldn't find anything, maybe that's what the customer, maybe you'll never go back to that customer again. If the same customer it's happened to three or four times and you're saying we can't find anything, it may be one of those intermittent, elusive problems that will eventually surface when it blows apart. The point is I think the customer says, what did you find or what's going on out there. We're guilty of just fixing it and moving to the next one. We're not thinking about this information that we have to disseminate back to that person and I think when we tell them nothing, we say we still can't find anything...

MS: I can say every time we have a homeowner complaint or an area complaint, we go (turned tape over)

*****BREAK*****

VP: We're going to stop looking at the tables. And instead we are going to move on to Scheduling of the Next Steps.

DK: I think the discussion today has been a very good one. I think as staff we are going to be meeting and try to reflect what's been discussed here today. I hope that there's been as well what we think it is we're trying to be responsive to. Access to data or analysis or both. At other times I think we do need to have access to data to see if we agree with you. I think it's an ongoing conversation. In terms of next steps, I don't have a series of things. I think the first thing I would say that we are going to get together as a group to see what we learned. We did have, in some of the early discussion, some issues we think are down the road. Power quality. What we talked about today, those sustained interruptions. Is that an area that we ought to talk some more about? Are there other aspects that we also should bring up such as accountability? Is that something that should be discussed. I'd like to throw that out.

ML: Is that assuming that this step is complete.

DK: We spent as much time as was appropriate today and I think staff needs to go back and reflect on it. What might happen with sustained interruptions.

DD: With where the new system is going I think two things that we're looking that I keep hearing in the discussion today. To be able to determine whether reliability of our system is changing. How can be determine if there are particular problems with the tracking system that the company is working on. The data can be sorted, organized by problems, sometimes causes aren't always attainable. I think what Roger brought up earlier was a good point. Allow us to identify problems. The question we've all struggled with is that enough for staff to say that the system is reliable? The intent of the new system is to be able to do that. It's level of accuracy. To bring closure we intend to look at the data this is a function like all of you have right now. This is kind of an audit of our engineering. This is a little bit more difficult. One suggestion was setting those as performance standards that the staff have access to the detailed data.

MS: One of the concerns I have about going down the power quality path is, I'm the chairman of SAGS. Sag is a big issue within the industry. So I would caution you with that discussion, unless you really want to deal with it. It's not something for the faint of heart. So I'm concerned that power quality is something that is a good buzz word. Everybody wants to talk about it. But it's not something that you're going to resolve or

come to any conclusions right off the bat. I just want to make sure that you understand before you walk into it. There are lots and lots of information on that already out there. But it's not something that there's consensus on. If you thought I was contentious this morning, I deal with this all the time, Mark.

MA: I warned the team. I understand and I appreciate that. I have a question, Dave. You said or Marshall said that you were looking at developing your system along the lines of the IEEE standard. You talk about overall indices and a question of which ones ought to be used. Have you decided on indices? Do you know the level of detail that you're going to be able to provide? Is that still all up in the air?

ML: We've done our design and we're in the process of programming and building the system right now. When we started this we don't have any history of tracking any of these and if we did it wouldn't be accurate information. We've designed our system to calculate, as much as possible, all the indices without knowing beforehand which ones are going to be most valuable to us as a company. Basically all the sustained indices we're going to be able to calculate..

MA: The 1366 indices and the CAIFI ....?

ML: They're kind of split up between sustained and momentary and the momentary we're hoping to, down the road when we integrate our system with SCADA to be able to calculate a lot of those also for particular feeders. My understanding, I'm a little confused with the talk about sags and momentary interruptions because to me reading IEEE, my understanding is momentaries deal mostly with trips and recloses from breakers and the sag, I'm not sure how that comes into play with the MAFI calculations.

DK: If I could summarize what I think I hear, there's some question about the usefulness of this kind of discussion having to do with other than the sustained outages. Is that what you're saying Michael?

MS: Yes, I'll gladly give you guys a website you can start looking at some of the preliminary work done by Matt Bolin from Sweden. It's an actual standard because the IEEE is now being faced with the problem of going international. IEC is the international standard that we're going to have to comply to. So it's not just national it's international. This has to do with critical processes, everything from Intel kind of micro-processing places all the way through hospitals all the way through different critical processes like chemicals. So you deal with a lot of different industries in power quality. A sag is not a sag and momentary is not a momentary. You find out that there's a lot of differences in how people characterize that stuff. I'd be glad to go through it. I could talk till 10 o'clock at night. I enjoy this.

MA: I know you do Michael. We, I think have some more specific questions that we would like to ask about power quality. Not just in terms of general adequacy like we were talking today. And I think a fair number of complaints that we have heard recently have been in that area. I think we both need to and will be able to prepare you with some specific questions ahead of time before....

MS: Are you talking about the flicker and things like that?

MA: The flicker may be part of it. But generally speaking we, and part of this is deductive. We know that the sensitivity of equipment has been increasing. Whether or not the reliability or the quality of power has made any changes at all. We simply want to talk about, in part, what that means to the customer and what solutions there might be. The solutions may have nothing to do with changes in either engineering or standards, and may relate to customer information or something of that sort. I think we do want to become better educated on power quality in general, but we're not pursuing major, at least in my mind, we're not pursuing this for major changes in engineering or standards, necessarily in power quality.

MS: Just to give you some kind of background, I know we have a European in the audience so this is kind of something he's going to have to jump in because I know that they qualify pieces of equipment that can go on their system. In our country it's not the same way. They have a compliance standard where you cannot hook up some pieces of equipment to the system. Therein lies a big difference in how their approach is done. So what your getting at, if you start going down that path, is this whole discussion of who can hook up what to the system and where does it have to respond to. Is the customer responsible for that? Can I tell him when he can't hook up his pizza oven because it's going to have so much flicker on his system. In the European system they're allowed to do that.

MA: I think this would be a good part of the discussion if we do choose to have a workshop on power quality which, in my mind, is at least two workshops down the road from here. At any rate in the power quality realm we have some specific questions that we can ask that doesn't indicate that we are trying to get into an absolute mess.

DK: I think what we'll do in terms of discussion on power quality is make sure that we put out, with lots of advance notice, the kinds of questions that we think we have there or the kinds of questions that have been asked of us so we can figure out how to discuss that, whether it's to do that in person or through written comments or some of each or whatever. That will be down the road for staff as part of our responsibility to put those questions out. I would like to ask if there is a next step beyond, and it goes back to my comment that staff needs to get back together and sort of reflect on some of the stuff we got today and try and figure out what is a reasonable next step after we have done that reflection. I don't think just throwing up our hands is a reasonable next step. I think

getting back to this group and saying here's what we think we've heard and here are some of the questions that are still outstanding in our mind and here are the germ of some ideas about the directions we'd like to go. I think that's staffs' responsibility and then I think it would be useful to get response back from you folks on those reflections and those germs of ideas. Do we want to commit to a time frame for doing that Mark?

MA: Sure. I think we can take the information that we've received here today. It will take us a little time to get the transcripts written up for us because some of our team were not able to be here. I think it will be beneficial for them to listen to the tape or to read the transcript and then we as a team need to meet together to talk about what it is we've heard. There are several things that are taking place. We are talking about several levels of information, both the process and dealing with the customer and then dealing with the data and engineering measures and so forth. I would just like to ask at this point, we've heard some different things. You've got some data. You're going to report to us some data, some information, but there are also real problems with what this data means. I'm not sure if we go back with what we've heard that what we're going to do is not kind of come back to you the next time and say, well we've heard you've got some data, there are problems with it and ask you the question, what is the information that you think we should have in order to be able to answer our questions Of course that's the question we started this meeting with. So I'm a little concerned about that. On the other hand we could come out with a specific proposal explaining, OK we've heard what you're saying and here's what we think might work in terms of dealing with the customer issue and process here's what we think might work to answer our questions in terms of the engineering data and then get a response to that. While we sit back and need to think about it, I'm not sure what it is actually that we want to produce. And that's what I need to know before I can make any assessment of here is when we can produce it.

BF: Dave, not too long ago, used the metaphor of financial statements. I think we're going to find the same sort of thing on the reliability statistics. Let's go back to the financial metaphor. Avista's revenues go up. Well, we see that the weather got cold. So, when you and anomaly in the financial statistics you use those to then go through forensic analysis, look at the why. It's not because we're overcharging or what-have-you. So, maybe we might want to look at it from that perspective which is, let's see what the data is going to provide and then start asking ourselves what sort of questions the data will lead us to. That certainly the perspective that Avista has at this point. But we are concerned about some of the downside that people have talked about. Will this be used for purposes that we haven't contemplated at this point, but that's something that we can deal with later.

MS: We had a meeting in October. I haven't seen any follow-up on that meeting. There should be some write-up also because we had discussions at the meeting. Because at that meeting, Mark, things like reclosers, how you felt they weren't helpful in the system.

MA: I misheard what you said.

MS: Reclosers, and how you didn't like those in the system and Alec gave you some perspective.

MA: I didn't say I didn't like reclosers.

MS: Well I heard it that way. But that discussion was really helpful, I think, for some background because I think this is important to keep in context. This is not really the first meeting, this is really the second meeting. The second thing is, we believe that this information is going to be more and more information, just as Dave made a comment earlier in the day, with AMR systems is going to give the customer more information. We believe it's important to give that information to the customer. Not necessarily wholly that information, but on the other hand I think at the present time we're concerned about having a whole duplicate process of looking at how this data is being interpreted. If I could go back to if there's an issue with Roger, we'll work with Roger to get that information to him so he can sort of make sure that information is useful. We would much rather provide one piece of data rather than 10,000 pieces of data that's sort of doesn't really accomplish the task. We'd rather solve problems than providing data. But that's our position that we'll be glad to work with you and all that.

GS: I'd go back to the comment earlier that his report requirements are far different than whoever talks to the Commission and represents information there. There you need data and statistics and that type of thing for them where for the individual consumers are not concerned about data and statistics, they're concerned about their individual problem. So you've got different requirements depending upon who you're presenting to, the legislature, the Commission, the individual. I think you kind of have to break it down that way.

DK: I would agree with you and that's why I said that I think in the long run we're going to need access to both data and analysis because we do have different audiences that we need to answer to. Going to the financial analogy again, as well, we have to have an ability to audit that data at certain times as well depending on the types of questions we're asked about the veracity of the data or the analysis that's done and whether or not we agree with the assumptions that are put into the analysis. I think we do need some levels of both. I would not like anyone to leave here today with the thought that the Commission staff wants to reinvent the wheel and look at every number that you guys collect on an on-going basis. I don't think the Commission would be interested in building us a new wing on to this building to house all of that. We're going to have to work on this communications thing again between the companies and the staff. And at the appropriate times we're going to need different kinds of information.

MA: I'm still just a little unsure what it is....

GK: I was just wondering if it followed on, and I'm not quite sure that it does, but maybe if could just reiterate that PacifiCorp's position, however you see things going forward in terms of the number of commitments we've made anyway as part of the regulative process. The first thing we recognize is that the outage data, as we currently collect it, there is a level of inaccuracy and inconsistency which does not allow year and year comparison. That is an issue that we've accepted and an issue that we are addressing in terms of to get to more accurate and consistent data. Of that probably the consistency I believe I believe to be more important, because that allows you the comparison which leads on to the next point which is why we intend to do this which is to demonstrate is to demonstrate the even year the performance of our electricity network is not deteriorating and is improving. The address the third point in terms of specific customers issues in terms if they problems with their electricity network. We're always willing to work with the Commission and the customers to see what their problems are and to see how they can be resolved and examine that in terms of what problems they're experiencing with the electrical network. A word of caution, I suppose, where we're coming from, the concern of that throwing data at it may not provide the solution in terms of analysis for the customer at a customer level. The analysis is critical when you get into a lower detail of figures rather than the high level figures that demonstrate, as a whole, the electrical network and consistent and not deteriorating. For example, if you look at SAIDI and MAIFI you might be able to reduce your SAIDI when you reduce the total length of interruptions the customer has experienced; however, one common way of doing that is to introduce a number of auto reclosers on to the circuit and that, by it's nature, is going to increase your MAIFI calculation. So, unless you look at the analysis of those underlying going on, you can't draw the comparison year on year to say, OK SAIDI's good but MAIFI's gone up by twice, therefore things are deteriorating, they may not be. I think that's the level of caution that we would have on the level of detail looking for reporting.

DK: Thanks for the comment on that. One thing I'd like to make sure we're clear on is that staff has come quite a ways in terms of understanding that there is relationship between each of these and how you measure them. And that there may be changes from year to year that need to have footnotes on them about why they changed. You may be in a situation where you're measuring things differently and so your accuracy has gone way up and now you're counting a lot of outages that you never counted before and that's not to say you had more outages than you did last years, you're just counting them differently. We understand that and we understand that those things are going to have to be footnoted or explained because there are going to be differences. But I think in the long run being able to recognize trends and understand those footnotes and why things change over time is going to help us do our job.

MA: You asked me whether we could set a time on what it is we're going to do here and I know we're going to pull back and think about all this but is there something that we determined that we are going to do? Whether or not we do it by a specific date in your mind?

DK: I think I was referring to taking a look at the information that we've gotten today., Taking a look at the assumptions that we've had up until today and find out if we need to change those and then responding back to the companies and saying, well we still have these questions in our mind or we have these ideas where we think we're going to shift things or move things. I think this is something where we may not be able to set a definitive time on this today. I think this is something that in the next couple of months that the staff is going to have to take some serious look at and then have that communication back out to the companies about here's where we think we are. Here's what we think we heard and here's where we think we might go.

MA: To all the stakeholders. My sense is that we would decide to then communicate with the stakeholders in document form or possibly in another workshop forum. I think the idea of giving us a couple months to do that maybe at the end of a two month period or something to be able to have approximately to have something to go from would be fine. It's reasonable to me.

JS: If we just wanted to get the minutes of the workshop out we could do that in fairly short order I think. Taking a look at where we want to go next.

MA: We will try to get the minutes of the workshop out. Put them on the webpage as soon as we can. Two to three weeks we will attempt to have the minutes of this meeting available on the webpage. And we will have met as a team by that period for sure. In fact we'll probably meet tomorrow morning and decide where to go from there. Two months I think at the outside before we communicate again or have a workshop. We usually thy to give three weeks notice before a workshop so it may get pushed back because of that.

DK: I'd like to ask if there's any other comments or questions that folks would like to throw or address at this time? I don't believe I have any other comments from staff. It looks like staff has pretty well said that we want to reflect on what we've heard and decide on where we're going to move forward on that. Is there anything else anyone would like to raise before we close the workshop for today?

ML: I think it's unfortunate that we didn't discuss tables 2 and 3. I think that's still important information that's going to need to be discussed before...

MA: That's fine, I wish you'd said that earlier.

ML: Without getting everyone's input these things that you have listed here. I think that's still a step that needs to occur at some point.

MA: In part that's my concern if we go back to look at what we heard today to some degree we may be asking some of the same questions the next time we come up since we did not go any further into the tables. We've heard enough, in my mind, we've heard enough concerns about the terms, about the validity and values of measures. About the usefulness of measures. About alternative measures. Because we're addressing at least two different levels of information and process and different approaches to try and answer these questions. My guess is there will still need to be some level of discussion about this but it will need to take place in a broader context that we need to put together from the comments that have been made today. I think you're right we may need to continue to discuss some of this but in a broader context. If any of you have any comments about what is in there already, we would love to have that input because we will continue to think about these kinds of things. You don't have to put it all on that one green page either. You can give us comments through a lot of different venues. We wouldn't mind comments at all.

KK: One thing that we didn't talk much about today was cost and trying to relate reliability with costs in any way. I was just wondering if you're going to address that. There's more than just these different indices that makes them pertinent. They're getting a certain level, the customer is in every service territory, you are getting a certain of reliability for a certain cost and it doesn't seem like that has been brought into the equation here at all. The interesting thing that we found about from our customers when we address reliability issues is it's just a matter of costs to raise reliability levels and generally speaking our customers are not willing to pay more. So, somehow I think that needs to be taken into consideration at some point in time.

JS: Has everyone seen the comments that were submitted in the first round last October. Has everyone had a chance to see everyone else's comments. No? We will make sure that you get a complete packet sent out to your because the Department of Community Trade and Economic Development's energy policy section raised some pretty interesting questions. They weren't the only ones. I think maybe PSE's comments did also, but just the customer willingness to pay for a given level of reliability. It gets to the fundamental question that we have of what is reliability. What's adequate reliability? But there are obviously customers that have greater willingness to pay for greater levels of reliability. There's also the question of who pays. In essence we're shifting, we're talking about risks and who pays here. One of the things that has emerged from the customer comments a lot is how galling it is to have a thousand dollars of equipment be fried and to be told we're not going to pay, it's just part of our policy, it's in the tariff, tough. That is part of the customer service warm and friendly issue. One customer said if the company had just said that we're sorry about your equipment that got fried but they

didn't even get that. The customer points out that they can it paid through homeowners insurance. If they do that their deductible goes up. We're socializing the costs one way or the other. One way we're socializing it on the company through rate and another way we're socializing it on the insurance company or we're putting it on the customer. The gets to the education component that Mark said. Customers should at least have this made explicit to them ahead of time perhaps. Maybe we should tell them, oh, by the way, if you want protection, you need a surge protector. These are all really good questions that I hope we can get to them.

MA: Not all the comments are digitized but the ones that are, are available electronically. That's a good point we will put out a packet of comments then and just send them all out.

VP: I guess that wraps it up. Thank you everybody for coming. You're welcome to come next time.