Q. Please state your name, address, and employment.

A. My name is Charles Eberdt. I am the Director of the Energy Project, 3406 Redwood Avenue, Bellingham, WA 98225.

Q. Are you the same Charles Eberdt who previously filed testimony in this proceeding?

A. Yes I am.

Q. Were your qualifications contained in that prior testimony?

A. Yes, they were.

Q. What is the purpose of this cross-answering testimony?

A. I will describe concerns about negative impacts for low-income customers that I believe will result from the Staff's proposed three-tiered rate and make a suggestion how to deal with it going forward.

Q. Are you aware of the Staff's proposal to create a third tier in residential rates?

A. Yes, to the extent that I have read Jeremy Twitchell's testimony and looked at the relevant exhibits.

Q. How would you summarize this proposal?

A. I believe Mr. Twitchell is proposing a third, higher priced tier to residential rates as a means to encourage energy conservation on the part of high users, particularly those whose usage is discretionary or unnecessary. At the same time he proposes to increase the monthly basic charge from $7.745to $13.00.

Q. How different is this from the Company's proposal?

A. It is similar to the extent that the Company also proposes a radical increase in the basic charge, in their case to $14.00, but very different in that the Company has not proposed a third tier to rates

Q, Do you agree with Mr. Twitchell's rate design?

A. The answer to that is both yes and no. His rate design increases the first block from 600 to 800 kWh, which I agree is probably more representative of base load use, which is relatively inelastic. I also agree with the intention to send a price signal to customers who have excessive or profligate usage. Such usage adds to load and to spikes and generally requires all customers to pay more for their services by requiring the utility to supply that higher load and build to meet that capacity.

Q, What aspect of Mr. Twitchell's residential rate design proposal do you disagree with?

A. Most importantly, I believe the threshold for the third block is set too low and generally ill advised at this particular time pending further analysis of the impacts that it would have on low income customers.

Q, What is the threshold for that block?

A. According to Staff's design the third block would start to charge $0.11996/kWh at 1701 kWh each month. This is nearly a $0.03/kWh increase over the second block, or roughly a 30% increase ((.11996-.0917)/.0917). Granted, his second block is priced lower than the current second block ($0.0917 vs. $0.09817), but the new third block rate would still be a 22% increase over current rates. Mr. Twitchell has designed the

structure such that a customer can use up to 1956 kWh and still pay less than he would pay under the current structure. That means the negative aspect of the rate doesn't immediately hit the customer when he uses that 1701st kWh.

Q. Do you know how that level was chosen?

A. I can't say I know for sure. I do know that Avista has a three-tiered rate with a third block starting at 1500 kWh. In a recent PSE cost of service case, (UE-130617), Staff proposed a three-tiered structure that started the third block at 1500 kWh. That case was not resolved with a new rate structure, but the idea resurfaced in the pending case (UE-141368). After much discussion, the threshold was raised to 1700 kWh in the settlement that was proposed, based in part, I believe, on the Energy Project's arguments.

Q. What were those arguments?

A. Basically, that the lower threshold would throw many low-income customers into that higher block payment at a time of year when they could least afford it, running the risk of greater shut-offs and less revenue recovery than expected.

Q. How did you make that determination?

A. We worked with PSE and the Staff to look at the records of the customers who participate in the utility's bill assistance program and LIHEAP. Because low-income housing has a much greater occurrence of electric resistance heating, those customers don't have much choice about using less electricity if they want to heat their homes to a healthy temperature.

Q. Why is that important in this case?

A. Because the same thing is true in PacifiCorp's service territory. PacifiCorp was required to conduct an end-use study as an outcome of a previous rate case (UE-130043). They essentially surveyed a few thousand customers to see what appliances they had, what they knew about the rate structure, how they viewed their bills, etc. The results of the survey were provided as a confidential attachment to the Energy Project's Data Request No. EP-56. Without violating any confidentiality, I have generally summarized the data about space and water heating systems from that survey in Exhibit No. ___(CME-10). Generally, the data indicates that the identified low-income households rely on electric resistance heating to a much greater extent, a little more than twice as much, as the regular residential group, and less than half the reliance on gas heating. Heat pumps are much more prevalent in the regular residential group as well.

Q. Why is this important?

A. In his justification for the proposed rate design, Mr. Twitchell goes into a good discussion about elastic and inelastic load. I believe his intention is to take advantage of that elastic load as a source of reductions. For low-income customers, this heating load is not elastic, or is only so at the expense of health and safety (e.g. hypothermia, mold or other indoor air quality issues, etc.). Furthermore, because that 1700 kWh threshold may work for PSE doesn't mean it is the right one for PacifiCorp. After all, there is a considerable difference in heating degree-days between Yakima and Bellevue, with the difference appreciating in the winter months when these

households will be depending on the baseboards, electric furnaces, and all too frequently portable space heaters. As I will point out in more detail later the poverty levels in the Yakima and Walla Walla areas are much higher as well.

Q. Is there anything else informing your opinion in this respect?

A. Yes. My experience looking at the low-income record data in the PSE case was very informative and informed my analysis in this docket. In this proceeding, the Energy Project submitted data requests to the Company seeking similar data and to model a three-tiered rate structure for us by performing bill impact analyses for Schedule 17 LIBA customers based on what we anticipated Staff's actual rate design proposal would be in this case. The Company declined to perform the bill impact analyses because Staff's rate design proposal had not yet been formally made at the time we submitted our data requests and the Company lacked the specific tiered rates that Staff would ultimately propose. The Company now has available that data but I have not yet seen any bill impact analyses of Staff's rate design proposal as sought by the Energy Project's discovery requests. As I will discuss later, the data we have been provided regarding the relative consumption of low-income customers is short on specifics and long on speculation and, in certain instances, seems contradictory. Any additional and meaningful data such as the bill impact analyses would be helpful.

Q. Did PacifiCorp provide any other data of use in your analysis?

A. Yes. They did provide monthly usage for all the LIHEAP and LIBA participants whose bills were either greater than the monthly average or greater than 1700 kWh. The Company's response to Energy Project Data Request No. 71 requesting the percent of low-income and regular residential customers whose usage exceeds 1700 kWh in a month is included with this testimony as page 2 of Exhibit No. ____ (CME -11). It indicates that during the coldest months the low-income proxy group experienced bills over 1700 kWh approximately 7-12% more frequently than the other residential customers. I then took the data set with monthly bills greater than 1700 kWh that the company provided in response to Energy Project Data Request No. EP-68 and counted the number of times a monthly bill exceeded various kWh levels, while removing any blank cells from the set. Since this data set did not include all the customers, I used the monthly enrollment numbers provided by the company response to Energy Project Data Request No. EP-53 included hereto as page 2 of Exhibit No. ___ (CME-12) to ascertain the total number of customers who could have had bills over 1700 kWh.

Q. Why would there be blank cells and why did you want to remove them?

A. There are blank cells because not every bill assistance participant is signed up for the program for the full twelve months of the test year. I wanted to remove the blank cells because I wanted to get a more accurate picture of what proportion of this group of customers could be paying higher bills.

Q. What did you find out?

A. My results are shown on the right hand side of Exhibit No. ____ (CME-13). It should be no surprise that once the blank cells are removed the percentages of low-income bills above the 1700 kWh threshold increase. More importantly what the exhibit shows is that in the coldest months, December through February, more that 40% to nearly 60% of these customers are using more than 2000 kWh/month. In fact, around 50% are using more than 2200 kWh in December and January. What's more, in December and January a large share of these customers, more than 40%, are consuming over 2400 kWh. All three of these groups have passed into the area where they are paying more for their usage than they would under the existing two-tiered rate structure.

Q. What do you conclude from this?

A. I conclude that the 1700 kWh threshold is simply not high enough to protect a large number of low-income customers from unaffordable bills during the time of year that they will be struggling the most to cover expenses.

Q. Won't that increase be relatively small?

A. It may be relatively small in some individual cases, but I believe it will still result in increased disconnections overall.

Q. Doesn't Mr. Twitchell indicate that the LIBA program could be adjusted to handle the increase?

A. No, he does not. In fact, he specifically states "there is no need for additional rates specifically targeted at low-income customers at this time." (Twitchell, Exhibit No. ___(JBT-1T), p. 34, l. 20-p. 35, l.8) He does go on to say that Staff

recommends a re-evaluation of the kWh levels above which low-income customers receive a credit "based on the outcome of this case." I'm not exactly sure what that means – do we re-evaluate before or after the harm is done? Regardless, that is not part of the agreement we reached with the Company and Staff when we negotiated the five-year plan a couple of years ago. That agreement increases the funds for the discount program based on the amount of the residential rate increase. It does not address any impacts that could occur as a result of redesigning rates. We are currently in the middle of that plan. It is unclear how the proposed rate design would impact it. More to my point, however, most of the Company's low-income customers are not recipients of that assistance. I would assume, however, that no changes could be made to that plan without renegotiation among the parties that agreed to the settlement of which it was a part.

The redesign will still be significant in terms of its overall impact on the low-income population. The proxy group comprises a small fraction of the households who could be eligible. Staff member Roger Kouchi points out in his testimony that the LIBA program serves approximately 5.4% of PacifiCorp's customers when the poverty levels in the Yakima and Walla Walla areas are 38% and 28%, respectively. Mr. Kouchi cites these statistics in opposition to the dramatic increases the Company has requested for reconnection charges because he is concerned about the "potential adverse safety impacts" (Kouchi, Exhibit No. RK-1T, p. 14, l. 6-21). I believe the situation here is similar. In the intention to target discretionary high use,

there will be an unintended hardship for many low-income households whose use is not discretionary but essential.

Q. Doesn't Mr. Twitchell indicate that customers will be able to lessen the impact of a higher priced third block by buying more efficient appliances or switching to different fuels?

A. Yes, he does in his elasticity discussion. Unfortunately this doesn't really apply to the low-income population because they don't have the discretionary income to make such purchases. Also, they are most likely renters and so don't have the authority to make such changes.

Q. Earlier you referred to the increase in the basic charge as a "radical" increase, why?

A. Because, as I understand it, the Commission's practice has been to exercise a policy of gradualism when changing rates and charges. A 68% increase as Mr. Twitchell proposes, or the 82% increase proposed by the Company, is not even remotely "gradual."

Q. Are there other reasons you do not support the basic charge increase?

A. As I said, I believe Mr. Twitchell's intent in creating a third tier is to create a price signal or incentive for customers to reduce their usage. To some extent, raising the basic charge is counterproductive in that regard, because the additional revenue collected there would be collected in the rate tiers, most likely in the higher tier since we have a long standing practice of inverted rates in Washington.

Q. Does this charge represent a departure from current practice?

A. Yes, I believe it does. My understanding is that the Commission has held to the idea that the basic charge only covers the customer costs; i.e., the meter, the billing cost, those costs that are specific to the addition of a customer. This increase is intended to carry some additional distribution cost beyond those customer costs. Granted it is modest in that regard, but I believe that opening that door is a mistake. Mr. Twitchell indicates that almost no fixed charge cost is recovered in his proposed third tier rate. That seems backward to me since the size of the system is determined by the maximum expected usage and the higher users have a role in determining that size.

Q. Do you support the Company's proposal for a lower base charge for LIBA participants?

A. I appreciate the Company's suggestion and note that Mr. Twitchell has modeled how it will minimally affect other ratepayers. Yet, again referring to the information provided by Mr. Kouchi, the population of low-income customers who would be paying the higher base charge and rates is far greater than those who would benefit from this lower basic charge. That is, it is not the $.20 increase on the regular customer's basic charge (raising it to $13.20/month in Mr. Twitchell's modeling) that is a problem, but $5.25 or $6.25 Staff and the Company have proposed that all the low-income customers who are not on Schedule 17 will have to pay. If the Company's offer is intended to assuage our concerns about the higher basic charge, I have to say it doesn't reach enough customers. If it were it extended to all low-income customers, that might be another matter.

Q. Is there anything else that indicates that raising the basic charge so that volumetric charges might be lower is not a good policy?

A. I feel compelled to point out that customers do not support it. In the survey the Company commissioned following UE-130043, 65% of customers disagreed or strongly disagreed with the statement that they would "rather pay a higher basic charge and lower energy rates." (PacifiCorp confidential response to Energy Project Data Request No. EP-56, Attachment D, p. 21).

Q. Is there any other reason?

A. I am also concerned that this shifts more costs to customers with lower usage.

Q. Why are you concerned about low-usage customers?

A. I am concerned about them because I believe a lot of low-income customers are low users. They tend to live in smaller structures, which correlates with usage. At the same time, Staff's proposed rate design increases both the basic charge and rates for the bottom block. This will put additional stress on their limited incomes.

Q. Are PacifiCorp's low-income customers low-usage customers?

A. Unfortunately, there is no definitive answer to that. Or, rather, there are indications both that they are and that they are not. The Energy Project asked a number of data requests of the Company to analyze the usage of a proxy group of low-income customers. This proxy group was comprised of the customers who applied and received assistance through the Low-Income Home Energy Assistance Program (LIHEAP) or the utility's Low-Income Bill Assistance program (LIBA). As was pointed out earlier, the usage data from

this group seems to indicate that they, on the average, use more electricity than the "non low-income" residential customers annually and particularly in the winter months, but less in the summer months.

Q. That would indicate that they are not low users. What is there to the contrary?

A. Data provided from the previously mentioned end-use study indicates lower income customers who are not identified by participating in the Company's LIBA program are at the bottom of the average usage curves year round, as shown in PacifiCorp's response to Energy Project Data Request No. EP-56, Attachment D, p. i. To be more accurate, the average usage of this group (Schedule 16 residential users with annual income less than $30,000) is lower than either the Schedule 17 (LIBA) participants or the average for the regular residential customers in every month except July, when they appear tied with the LIBA users.

Q. Why doesn't this then define low-income customers as low users rather than high?

A. Unfortunately, this data is from a fairly small subset of customers. The total number of low-income and non low-income customers who responded to this question is smaller than the number of LIBA participants for any given month. At the same time the number of Schedule 16 customers responding to this survey question who are identified with lower incomes is nine times the number of LIBA participants who responded. LIBA participants

represent less than 2% of the customers who responded, far less than the proportion of PacifiCorp customers they make up.

Q. Why do you suppose the response rate is so low?

A. There are probably many reasons a low-income person struggling to pay his bills does not respond to a survey from someone who may be or has been a creditor. I think one clear reason, however, is that the responses to this survey are heavily weighted to homeowners. This is demonstrated by a graph (shown in PacifiCorp's response to Energy Project Data Request No. EP-56 and found in Attachment B, p. 10) indicating that 81% of the respondents own their homes. This is almost exactly the opposite of low-income households of which 65-75% are renters.

Q. What does this lower income Schedule 16 usage indicate to you?

A. It indicates to me that we just don't have a good handle on the usage characteristics of PacifiCorp's low-income customers. The LIBA data would characterize low-income customers as high users in winter such that their annual load is above average, yet these lower income Schedule 16 customers are almost the opposite. That is, they have the lowest average monthly usage in the winter and on an annual basis. In justifying his rate design with regard to low-income customers, Twitchell notes that 47% of the identified low-income bills fell within the 850-1900 kWh range. Customers in that range receive a reduced bill from his design. I really appreciate his sensitivity to the impact the rate design can have on low-income customers, but I have to note that, put another way, this means that over half of the low-income

population (i.e., the other 53%) will be seeing an increase in their bills. It's not clear to me whether that will result because they are above average users or because they often use less than 850 kWh. But my concern is that we will be dunning both low and high low-income users in order to reduce rates for the customers who fall in that middle range.

Q. What conclusion do you draw about Staff's proposed rate design?

A. I believe staff is trying to balance providing adequate revenue recovery for the company with a rate design that secures more of that revenue from base charges and a higher first block rate, while at the same time trying to encourage reduction in discretionary usage by sending a price signal through a higher rate in a new third block. I recognize that this is not a simple balancing act. Creating a third block is a bit of a departure, though not unprecedented in Washington. I am also aware that utilities in other states have as many as five residential rate blocks. However, I don't believe it is safe to implement this rate design without a strategy to ensure it does not unduly impact low-income customers.

Q. What do you recommend then?

A. I recommend that the Commission reject Staff's rate design proposal until such time as there is better understanding how it will affect the Company's low-income customers. This is not as small a group of customers as the very limited survey results and Schedule 17 recipients suggest. In that regard, and consistent with Staff witness Kouchi's testimony and observations, I recommend that the Company be required to conduct a study that will better

identify the true extent of the Company's low income customers and uncover the usage characteristics of their low-income customers more comprehensively that they have done.

Q. Isn't this what the end-use study conducted as a result of UE-130043 does?

A. I must say it is what I hoped that study was going to do, but it is not what resulted. As noted above, only a very small number of the respondents were LIBA participants. The average usage of non-LIBA participants who had lower incomes showed a very different picture from that of the known low-income in the proxy group made up of LIHEAP and LIBA participants. I can't tell which is a more accurate representation of the Company's low-income customers. Because of that I believe it is risky to institute the proposed rate design.

Q. How do you propose the investigation be conducted?

A. I think that the Company needs to hire someone who has the know-how to better identify and characterize the low-income population. Whether this involves market segmentation techniques, GIS mapping, or something else, I don't have the expertise to say, but the focus should be on the low-income population and it is probably something more than a voluntary survey. The Energy Project would like to be involved in the development of the study and would welcome input by other stakeholders.

Q. Would you summarize your testimony please?

A. The Energy Project contends that it is premature to institute the Staff's proposed rate design. We do not support the increase in the monthly basic charge. We support the intention to create a price signal with the third block rate to encourage more energy conservation, but are concerned that the current design will result in many low-income households seeing higher bills during the coldest months of the year when they can least afford them. This is due to the fact that much of their usage is not elastic in the high bill winter months, but driven by the need for heat and predominance of electric resistance heating systems. We note that the little information we have on lower income household usage is contradictory with some indicating that lower income households are the lowest average users while other data indicates that they have higher than average usage in the coldest months and annually. Because too little is known about the impact the Staff's proposed rate design will have on this population, we recommend the Commission reject that design at this time and order the Company to conduct a study that will produce sufficient information about their unidentified low-income customers so that any future rate design proposal doesn't result in greater disconnections or other unintended and undue negative impacts on this population.

Q. Does this conclude your testimony?

A. Yes, it does.