December 7, 2004

Robert D. Kahn, Ed.D.
Executive Director NIPPC

Dear Bob:

Snohomish PUD has forwarded to me your letter dated November 23, 2004 and asked that I respond. I appreciate receiving these questions and believe that peer review is a healthy activity on this kind of study. With respect to your specific questions, I have separated your questions into more detail in order to answer each sub part as follows:

Q1) Please describe how Henwood calibrated its Base Case model to be representative of actual system operations.

A1) Henwood's model is a fundamentals-based hourly chronological economic dispatch model that we have developed over the last 20 years. As such, audits of the detailed hourly modeling algorithms can be and have been done.

Further, during that 20 year period several "back cast" analyses have been performed to validate (or calibrate) the models For example, in a California PUC proceeding in the 1990's, Henwood and other models were subjected to a comprehensive back-cast test. Henwood models faired well in that activity. More recently, Henwood models have been subjected to review in a number of different proceedings and in review from numerous consulting engagements. The modeling has survived such reviews to the extent that they have been accepted by lenders as a sound basis for lending over 15 billion dollars in financing. In addition, Fitch Rating Agency has selected Henwood's price forecasting advisory service (which is anchored by the Henwood models) as its source of information for their power related business activities.

Henwood also develops a short term rolling 24 month forecast of power prices every month using the Henwood model. In developing this forecast each month, Henwood also forecasts the most recent historical month and uses that to ensure that the model is in fact producing results that conform with actual operations of the power grid.

Q2) What load forecast did Henwood use for this study? Please provide the load data for each hourly period modeled by zones as shown in Figure 3-2.

A2) Henwood develops its own view of load forecasts for purposes of this and similar studies. The Henwood process generally starts with recent actual loads and then applies load growth rates derived from public filings made by load serving entities. We then check our load forecast with the load forecast published by WECC. In general, our WECC-wide loads compare quite closely to the WECC forecasts. For purposes of dividing these loads into zones, generally we can identify a specific utility load with a

specific zone and assignments are made in that fashion. For the specific northwest topology used in the Grid West study, additional efforts were made to break out different utility loads into these more detailed zones. Henwood generally used its knowledge of which utilities serve which areas and population centers to make this breakout. This was a large effort undertaken by Henwood and we are willing to provide the data to you, but we would want you to agree to only use the data for purposes of reviewing our work on Grid West and not for other purposes. In cases such as this it is general practice to have a "non-disclosure" agreement in place with the receiving party before the information is provided. I will separately forward to you our standard non-disclosure agreement. Upon receipt of a signed non-disclosure agreement the hourly load in the zones shown in Figure 3-2 will be provided.

Q3) Did Henwood perform any simulations based on light, normal or heavy seasonal loads?

A3) Henwood did not perform a Grid West benefit/cost analysis based on light, normal and heavy seasonal loads. Henwood has, however, performed such analysis in other engagements involving northwest power supplies. For this particular study, Henwood could perform a stochastic analysis with and without Grid West. This would be a relatively intensive activity, but it could be done. As an alternative a few specific scenarios can be run, but then it will be necessary to put a probability weighting on that scenario. However, based on our prior work of this kind in the northwest, we do not see a strong likelihood that stochastic analysis or scenario analysis will result in a major difference in the benefit/cost ratio of Grid West. Therefore, we did not recommend this analysis be done for the Grid West study.

Q4) Provide hourly schedules used to model exports to loads, and imports from resources outside the region. Detail by source zone and sink zone.

A4) The analysis performed by Henwood involves an economic dispatch of all resources across the WECC region. The modeling is designed to assure that the lowest variable cost resources are used to meet the load, taking into account any must run and similar type obligations of certain resources. As such, we do not show mandatory exports to loads and imports from resources outside the region. Our approach reflects the fact that firm obligations to California from the northwest will be met from lower cost resources in California if the northwest party is able to find that such a lower cost resource exists. The same is true for imports. The modeling does include a number of "transactions", which transactions are generally taken from a recent BPA Whitebook. To the extent these transactions provide capacity, the effect is to shift the reserve requirement from one area to another. With respect to energy transactions, the effect is to shift load obligations from one area to another and to indicate that transmission capacity is being used for the transaction. However, after having done that, if the cheaper resources are located in the receiving end, then that energy transaction get displaced with generation located in the receiving end. Subject to the non-disclosure agreement, the details of each of the transactions used in our data base can be made available.

Q5) What fuel price assumptions were used in the study cases in the different regions?

A5) Subject to the non-disclosure agreement, the details of the fuel pricing used in the study can be made available.

Q6) Did Henwood perform any simulations using a range of fuel costs?

A6) In the work done to date on Grid West, Henwood has not performed simulations under a range of fuel costs. In Henwood's opinion, reasonable changes in fuel costs (which would necessarily impact both a Base Case and a Grid West Case) would not materially impact the change between the two cases.

Q7) Please enumerate the type (by prime mover and fuel) and capacity of resources for each of the zones in Figure 3-2.

A7) Subject to the non-disclosure agreement, the type and capacity of resources in each of the zones can be provided.

Q8) Describe the "water year" used by Henwood in the study.

A8) Henwood generally used "normal" hydro in this study. The normal hydro for the US Pacific Northwest was developed from White Book data. Normal hydro for other parts of the WECC are developed from other sources, but generally follow the principles of normal hydro that can be derived from the White Book.

Q9) Did Henwood attempt to analyze the study cases assuming critical hydro conditions?

A9) In the work done to date on Grid West, Henwood has not performed simulations using critical water conditions. In Henwood's opinion, using a critical water analysis (which would necessarily impact both a Base Case and a Grid West Case) would not materially impact the benefits of an RTO, in large part because of the need to assign a low probability to such a scenario.

Q10) How did Henwood shape the hydro in the Northwest and British Columbia?

A10) Henwood has a number of options for shaping hydro. In the Grid West study, Henwood started with the monthly normal hydro energy amounts derived from White Book or similar data. Henwood then applied a "peak shaving" algorithm. When applying the peak shaving algorithm, Henwood identified certain base load resources around which the hydro would be shaped when determining the load needs to be reflected in the peak shaving algorithm.

Q11) How were export opportunities considered?

A11) As discussed above, the hydro shaping is done around regional load needs with a few base load resources being taking into account. When the model is run, it is likely that other resources are also economic in the region. In such a case, these resources are run and may not be needed in the northwest but are attractive to other regions. If the model finds them economic and also finds available transmission capacity on the hour, the resources will be run and exported.

Q12) Henwood states that it quantified the benefits of coordinated maintenance. How was this done?

A12) As indicated in Table ES-2, Henwood used actual generation maintenance schedules in the Status Quo case. Henwood let the model search for an optimal generation maintenance schedule in the RTO case. As indicated in the report, the optimal generation maintenance schedule was essentially the same as the historical maintenance schedule, so no benefit was found from better maintenance scheduling.

Q13) Please describe how the impacts of improving coordination of transmission system maintenance were evaluated. What information was used to establish a baseline for transmission outages in the Base and Grid West cases.

A13) Henwood modeling to date has not evaluated impacts of "improving" coordination of transmission system maintenance. It is not clear that improvements in coordination of transmission system maintenance are possible. For example, the Northwest Power Pool already has the Operating Manual and Procedures dealing with transmission maintenance coordination. However, if NIPPS or others can demonstrate that there is a problem today and how the RTO might more effectively address the problem, it may be possible for Henwood to set up different transmission outages in the Base and Grid West cases to evaluate the impacts.

Q14) Does Henwood's modeling approach assume that the Base Case contract path scheduling approach optimizes use of existing paths?

A14) No. Henwood's modeling assumes that OTC will be increased by 1% as a result of better scheduling under an RTO (see discussion in last paragraph of Section 3.8). In developing this assumption Henwood had considerable discussion on this issue with various individuals in the Northwest. The following narrative provides an overview of those discussions:

> Today power is scheduled over a contract path. Schedulers look for the cheapest path that is available. The approach does not openly recognize that power will actually distribute across the system.

A flow-based approach will require schedulers to openly recognize that power will "distribute" across the transmission grid. The intent is to use "path distribution factors" during the scheduling activity.

For example, in the contract path world, a scheduler would simply find (via paper analysis that does not reflect loop flow) a path that is available and schedule the generation to the load (say 100 MW from Idaho to Mid-C). In the flow based world, the PTDFs will say that some small part of that power will flow across a different segment, and if that segment is already being fully used, the schedule will not be accepted. In this example, no additional power is allowed to flow across that path, and therefore, no schedule can be made from Idaho to Mid-C. If this desirable generation schedule (lowest cost dispatch) can not now be made, then a lesser desirable generation schedule will have to be made.

But the question is, if the inappropriate power schedule (100 MW from Idaho to Mid-C) was allowed before under the contract path methodology, did loop flow really occur to the extent that there was congestion? And if so, how was the congestion managed?

One view is that transmission system operators know that these loop flows will occur today, so in order to avoid congestion, they simply reduce the allowed usage of the contract path (e.g. by reducing OTC). If they reduce OTC by the correct amount in the without Grid West world, then you get to the same result as in the with Grid West world. If they do not reduce OTC by the correct amount then the grid is not being managed as efficiently as possible.

For the Grid West study, we have assumed that transmission system operators, knowing that they can't see the entire system from a flow-based perspective, are conservative and therefore have reduced the OTC too much in the without Grid West world. Our 1% increase in OTC in the with Grid West world results from the operators having a broader vision and from changing from contract-path ATC to flowbased capacity.

Henwood is also aware that the BPA-TBL is currently conducting a process to develop new methods for managing congestion internally The most likely option for internal congestion management is for TBL to develop "deemed buses" for injection and withdrawal by customer. Some customers may have one POR bus and one POD bus; others may have several. The deemed buses will be used with internal power flow models to distribute the schedules across internal cutplanes and help identify which schedules need to be curtailed or redispatched if internal congestion is encountered.

This is clearly the next step toward flow-based scheduling, and it's happening without an RTO.

Q15) Please provide references to "actual data" that indicates there is little congestion. Indicate how the conclusion in section 2.7 was reached based on this data.

A15) See http://www.ssg-wi.com/documents/320-2002_Report___final_pdf.pdf This document indicates % of the time that actual loadings on certain key paths/lines in WECC exceed their Operational Transfer Capability. A review of this document indicates that the highest loadings on paths/lines in WECC is generally not in the Northwest. Moreover, it indicates that path/line loadings are often much less than 75% of OTC.

Q16) Is Henwood aware of any regional reports that find congestion is a problem in the Northwest?

A16) Henwood is aware of studies and statements by individuals that congestion is a problem in the Northwest. Henwood has investigated these studies and statements and believes there is some confusion on what is meant by congestion. In Henwood's view, congestion needs to be examined in the context of all hours in the year under the actual variation in load that occurs across all those hours. The SSG-WI report looks at line loadings in this context.

Studies and statements discussing congestion as being a problem are based on a number of different extreme event conditions that have low probabilities of occurrence. If you define congestion as being what might happen in different areas under extreme low probability events, then you can say that congestion is a problem. However, if you define congestion as a condition whereby a line is overloaded during many hours in any year under normal usage patterns, then the evidence at hand would show that this is not a typical situation in the Northwest and that congestion is currently not a problem.

Henwood believes that the former definition is primarily useful for reliability studies, while the latter definition is the appropriate one to use in economic dispatch studies.

Q17) How were transmission constraints within bubbles modeled? How many cutplanes (flow gates) are used in the analysis?

A17) As indicated in Figure 3-1 (page 3-2) of the Grid West report dated October 11, 2004, the Grid West analysis was performed using a combination of a zonal model and the PowerWorld network model. The zonal model topology for WECC is shown in Figure 3-2. A northwest "close-up" of that WECC topology is provided in Figure 3-3. Appendix A of the report indicates the ratings on the links and paths between the bubbles.

For each hour that the study is performed, Henwood first runs the MarketSym zonal model. This modeling generally reflects what schedulers and traders do in setting up their commercial arrangements for the following day. Since no single scheduler or trader can know simultaneously what other schedulers and traders are doing, the limitations on the commercial arrangements are necessarily governed by line and path ratings without knowing what transmission system operators will then say about the arrangements.

Henwood's PowerWorld analysis is then run on the hour to review the entirety of the commercial arrangements proposed by the MarketSym model to determine if there is a problem on the network if the proposed schedules are accepted.

So the Henwood model is run in a two step process. First, proposed plant dispatch is performed using economic dispatch and path constraints indicated in Appendix A of the report. Then a complete network model is run with that proposed dispatch to ensure that no network problems will exist under those proposed schedules.

Note: It is Henwood's understanding that a cutplane and a flow-gate are two different terms for essentially the same concept. The cutplanes reflected in the analysis for the Norhwest portion of the WECC are indicated in Appendix A. As can be seen, a cutplane is generally made up of more than one path. The sum of the ratings of the individual paths in the cutplane (flowgate) are often greater than the total rating of the cutplane. Henwood modeling checks that neither path nor cutplane (flowgate) ratings are exceeded.

Q18) Please describe the mechanism used by Henwood's model to model application of pancaked or "incremental transmission rate charge" in the Base Case.

A18) For purposes of hourly economic dispatch decisions, schedulers and traders generally take into account the variable costs they will be experiencing in operating plants in an hour and comparing these costs to the value of the plant in the market on that hour. If hourly value is greater than hourly variable cost, then the plant is generally turned on.[1] When Henwood is modeling the dispatch decisions in the Base Case, it is important that the modeling does not reflect certain variable costs that are not being taken into account for dispatch decisions in the world today. Wheeling is one of those costs that needs to be carefully reviewed to ensure that the modeling is correctly reflecting how dispatch is done today. As indicated in the report, a large part of the wheeling arrangements in the Northwest today are long term wheeling contracts with fixed payments every month. Schedulers and traders do not reflect wheeling costs in their dispatch decision when they intend to use these kinds of wheeling arrangements. Therefore, as indicated in Figure 3-3, Henwood included a number of paths between bubbles that reflect approximations of existing long term wheeling contracts, which paths were provided an incremental wheeling charge of zero. The ratings on these paths are shown in Appendix A. Of course, Henwood modeling needed to assure that flows on cutplanes that include these wheeling contract paths do not exceed the total cutplane rating. This is again evidenced in Appendix A. In essence, for the MarketSym work, the lines between the bubbles reflect commercial arrangements for moving power. Many of these paths are reflective of long term contracts with zero incremental costs from a dispatch perspective. A few of these paths are reflective of transmission capacity that has not been pre-committed, and therefore would involve an incremental wheeling charge for using the line in any particular hour.

[1] This discussion is being simplified for to make a general point. In the real world and in Henwood's modeling the unit commitment and dispatch activity is more complicated.

Q19) Did Henwood attempt to analyze the extent of "existing pancaking for wheeling rates" other than through simulations?

A19) To make the model runs, Henwood necessarily needed to tell the model the paths that should not reflect incremental wheeling rates and the paths that should include incremental wheeling rates. For combinations of paths that include incremental wheeling rates, then those rates would be "pancaked." Henwood relied on two sources in making a determination of the assumptions to include in the modeling. The first source was a BPA Transmission Rate Case supporting document that indicated that most all of BPA's transmission revenues came from long term fixed payment contracts and only a very small portion of their wheeling revenues came from hourly transmission charges. The second source was Henwood's knowledge of the northwest transmission system and the wheeling contracts associated with that system.

Q20) Does the Henwood simulation approach consider the effects of L-shaped schedules and tagged transactions that include multiple OASIS reference numbers?

A20) As discussed above, the Henwood analysis assumed that in the Base Case there were some paths that would involve an incremental wheeling charge on an hour by hour basis. As such, any power dispatch that would use several of these links would involve the incremental charge on each link, thereby creating pancaked wheeling rates. This question seems to ask if the Henwood model reflects that each link might need to be made on a separate OASIS. Henwood's analysis does not address whether the arrangement would be done over one or many OASIS sites. With regard to L-shape schedules, depending on the reason for the L-shaped schedule and the many possibilities related to the transmission contract of the scheduler, this may or may not result in pancaked wheeling. Henwood does not know how much of this activity is going on today or if/how an RTO might impact economics of such an arrangement. In any event, Henwood finds it difficult to imagine this being a large impact on the economics of forming an RTO.

Q21) Does the Henwood simulation approach consider the possibility that transmission requests may be denied in actual practice in spite of the ideal conditions that exist in a simulation?

A21) Henwood is not aware that there is currently a significant amount of short term transmission request being denied in the northwest and has not modeled such aberrations in our model.[2] If NIPPC or others has information concerning this phenomenon that may impact our analysis please provide us with such information.

Q22) Please list all modeled wheeling assumptions and contract scheduling assumptions.

A22) Subject to the non-disclosure agreement, all modeled wheeling assumptions and contract scheduling assumptions can be provided.

[2] At times, there may be an inability, and therefore denial of requests, to meet requests for short term transmission on the PNW-PSW Intertie.

Q23) Why did Henwood assume that Cut Plan O (Idaho to Northwest) would be capable of 2200 MW in both directions?

A23) Per Appendix A, the rating assumed for this path is 2400 MW E-W and 2200 MW W-E. Upon review of the WECC Path Rating Catalog, it may be that the W-E rating should have been 1200 MW rather than 2200 MW. The path rating does indicate that the 1200 MW rating assumes no allocation on the Midpoint-Summer Lake line during normal system conditions. Henwood believes that if there is a desire to move power in the W-E direction on the Mid-Point Summer Lake line, then a rating would be determined. In any event, the W-E rating is not critical in this modeling because the path is generally always flowing from E-W.

Q24) How was Cutplane N (S. Idaho to Enerprise/Pacificorp/WallaWalla/Columbia Basin) Canyon modeled?

A24) This cutplane was modeled in the zonal analysis as a path rated at 325 MW S-N and 375 MW N-S. This path is also included in Cut Plane O as indicated in Attachment A.

Q25) Does the model hold power flows to the stated limits?

A25) The MarketSym (scheduler and trader) portion of the model holds flows to the stated limits. The PowerWorld portion of the model was used to find if there would be loop flow. PowerWorld can be run in either OPF mode (in which flows are held to the stated limit) or in normal load flow mode. In this case we ran PowerWorld in a normal load flow mode and then checked to see if any paths or grid elements exceeded their ratings. See discussion on page C-1 including footnote 43. On running PowerWorld to pick up the possible effects of loop flow, there were a few hours where line/path ratings were exceeded by a small amount when using schedules developed by MarketSym. This would likely result in a need to redispatch generation on these hours. The exceedance amounts and hours were almost identical in the two cases – Base Case and RTO Case. Henwood believes that these small overloads would have been adjusted in both cases by re-dispatch of hydro. The adjustments would have been the same in both cases, and therefore the difference in the production costs in the two cases would have remained the same, so Henwood did not go through the exercise of re-dispatching the hydro in the two cases to remove the overloads. As we indicated, we believe this does not change the amount of benefit we calculated from moving to an RTO state.

Q26) How do model flows compare to historic flows on the COI?

A26) Figures C-10 and C-21 show modeled flows on the COI. These flows can be compared to actual COI flows indicated on
http://www.transmission.bpa.gov/orgs/opi/intertie/monthly/ac/index.shtm

A visual comparison of data for 2003 from the BPA website to the data on Figures C-10 and C-21 indicates a very good match between historical and modeled flows.

Q27) More broadly, did Henwood compare modeled flows with historical flows on all paths to verify that the model was properly calibrated?

A27) As discussed in the report, Henwood did compare results from the SSG-WI report of actual path flows to the flows from the Henwood model. This comparison was only a quick view of the summary data available in the SSG-WI report and the hourly plots from the Henwood work. One would not expect a perfect comparison because the data is dealing with different time periods, loads, hydro, generation capacity, etc. However, our high level review of the SSG-WI data and our modeled flows indicated a good match between historical and modeled flows.

Q28) How were the contractual transmission rights and ownership share of joint plants limited to the owners?

A28) The model is capable of entering ownership information for jointly owned thermal plants. Mid Columbia plant contract rights were modeled by breaking the plants into a number of mini-plants to be assigned to each control area for reserve margin purposes, even if the hydro is physically located in another bubble. In modeling the transmission links in MarketSym as discussed above, the model was designed to reflect existing long term transmission contracts from specific resources to specific load areas. To the extent a plant is down, the long term transmission contracts are generally "flexible point-to-point" contracts (or similarly flexible), so that POIs can be changed without any incremental charge if there is available transmission capacity from the new POI. The model is checking for the availability of this transmission capacity.

Q29) How were losses modeled by Henwood?

A29) For purposes of determining how much generation was needed on any hour, metered loads were grossed up to reflect the existence of losses. For economic dispatch purposes, losses were reflected in the dispatch decision as indicated on Table -1 of the report.

Q30) Does this imply that any affects of eliminated pancaked losses in the Grid West case were not analyzed at all?

A30) As indicated on the topology, many transmission paths are long paths with a single loss factor. This is true in both the Base Case and the RTO Case. Losses will occur in both cases. For these long paths, there is no pancaking of losses in the Base Case. There is only a single loss charge. For a series of other shorter distance paths that might be linked together in an hourly schedule (which, as discussed above, does not happen frequently), there is pancaking of losses in both the Base Case and the RTO Case. It is not clear how these losses would be collected in the RTO case if they are not charged in a pancaked fashion. It may be that there will be no pancaking, but the losses are charged at

a higher rate on all paths. Alternatively, there may continue to be a pancaked loss charge. Or perhaps there may be a new loss collection methodology altogether, such as the GMM approach used in California. Because of this uncertainty, it is not clear how a change in methods for collecting losses will impact dispatch decisions. Our results assume that there will not be a significant change in generation dispatch due to some revised loss collection methodology that might be adopted by an RTO.

Q31) Please substantiate the statement in footnote 38 that "pancaked loss charges may be a good indicator of the actual incremental cost of dispatch and should be included in the economic dispatch decision."

A31) This statement was made by a participant in the Grid West discussions and Henwood included it in this report to indicate the essence of the issue that will need to be dealt with in any discussion about changing methods of collecting losses. The issue has to do with equity in assigning loss charges to those who cause the losses to occur. The statement legitimately makes the point that power flowing over long distances causes more losses than power flowing over short distances. Therefore, it may be equitable to charge a decision to move power of a long distance a higher loss factor than would be charged for moving power over a short distance. Today, losses are frequently charged the same whether the distance is long or short on a utility's system. If a different loss collection methodology is to be proposed, some will advocate a pancaked loss methodology as being more equitable.

Q32) What will Grid West charge PBL for losses? What will Grid West charge non-grandfathered transmission uses for losses? How much will actual losses increase due to Grid West?

A32) Henwood can not answer these questions due to uncertainty surrounding the design of Grid West transmission agreements. Because of this uncertainty, and because changes in loss collection methodologies are not likely to have a material impact on total losses or cause materially different dispatch decisions (for the reasons discussed above), Henwood has not reflected in this study a benefit to Grid West due to potential changes in loss collection methodology.

Q33) The cited benefits for the Henwood study on Table 8-2 were limited to the Grid West area. What were the equivalent benefits for the entire WECC region including Grid West?

A33) Henwood was attempting to determine the benefits to those entities that would be paying the Grid West costs. Therefore, we have not calculated a WECC-wide number. However, given that the majority of benefits reported in the study were caused by assumed better reserve sharing in the northwest if Grid West were to form, it is apparent that the change outside of the Grid West footprint would be small since reserve sharing with the rest of WECC would not be improved under the Grid West proposal. While a dollar figure has not been specifically calculated, the change outside Grid West, which is

reflected in a slightly higher NW to SW export level as indicated in figures C 10,11,21 and 22, will obviously be small.

Q34) How were regional benefits allocated to sub-regions?

A34) The Henwood report only looked at the change in production and production cost in the Grid West foot print area in a Base Case and a Grid West case. To the extent that the amount of production in the areas changed between the cases, there was a different amount of power export, so the change in power export was valued at the market clearing price at the border for that hour. Henwood did not report on an allocation of benefits to sub-regions of the Grid West footprint.

Q35) Please provide a specific reference to the study that identifies the "Tabors Benefits" of $410 Million for the RTO West region.

A35) Henwood erroneously assumed that the Tabors reported benefits would be for the RTO West region. Janelle Schmidt has pointed out to Henwood that the $410 million in the Tabors study was in fact for all of WECC. In attempting to determine from the report how much of the $410 Million should be properly allocated to the RTO West area, Henwood found two different numbers in the report. On page vii there is an indication that $305 Million of the $410 is assignable to the RTO West area. On page 17, Table 4, there is a breakdown that appears to assign $385 Million to the RTO West area. Regardless of the number relied upon, the Henwood study shows that benefits of Grid West appear to be far below any range of benefits indicated by the Tabors study.

Q36) How can the results of the Henwood modeling work be adjusted to get consumer specific impacts? Is it possible to get Henwood to run new "base cases"? How much would that cost?

A36) Yes, Henwood can run new base cases and perform other related analysis. Henwood has developed a power point presentation dealing with how to assess the costs and benefits of an RTO to specific entities. The presentation can be downloaded by going to: http://www.henwoodenergy.com/. Scroll down to the bottom of that page and find a list of "Previous Webinar Downloads" on the right side of the page. Click on the Webinar entitled "Benefit/Cost of Joining an RTO".

The cost to complete additional analysis would depend on the exact scope of work and would be subject to negotiation.

Q37) Who would Henwood indicate are the key players who could solve existing transmission problems in the northwest?

A37) The statement referenced in the Executive Summary was intended to indicate that existing organizations can be used to address these problems. The key players would vary depending on which issue is being discussed but all issues would require the involvement of BPA. As an example, a work group could be established to deal with the

problem of control area inefficiencies (i.e. the problem of not fully sharing operating reserve requirements). Such a work group would necessarily need the involvement of Control Area operators.[3] Other problems could be similarly dealt with. Parties could use already established dispute resolution processes (e.g. processes defined by OATTs, or bylaws of existing organizations such as NWPP), or they could agree to new dispute resolution procedures. All this could be done without needing to deal with the issue of FERC jurisdiction and without having to develop a new organization.

Q38) Which stakeholder groups would Henwood include in studies Henwood recommends in Section 11?

A38) Henwood would propose to allow any interested party to participate.

Q39) Is Henwood aware of any antitrust concerns that various stakeholder interests have regarding dispatch settlement and provision of resources for planning studies?

A39) Henwood is not an expert in antitrust matters. However, our experience is that there are ways to conduct these kinds of studies with involvement of interested parties.

Q40) How would Henwood structure a governance model for the alternative organization they propose?

A40.) See responses to Q 37 and Q 38.

I hope the information provided herein is responsive to your questions. Let me know if you would like to discuss any of these matters further.

Rich Lauckhart
Vice President
Global Energy Decisions
916-609-7769
rlauckhart@henwoodenergy.com

[3] Of course, those entities who may have cost impacts as a result of any agreement that might be forthcoming from the Control Area Operators may be interested in having some involvement in the negotiation.