BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

DOCKET NO. UE-032065

DIRECT TESTIMONY OF JIM LAZAR (JL-1T)

ON BEHALF OF

PUBLIC COUNSEL

JULY 2, 2004

This document contains non-confidential information provided under Protective Order in Docket No.UE-032065.

Q: Please state your name, address, and occupation?

A: Jim Lazar, 1063 Capitol Way S. #202, Olympia, WA 98501. I am a consulting economist specializing in electric and gas utility regulation.

Q: Please briefly summarize your qualifications?

A: I have been engaged in utility consulting continuously since 1982. I have appeared before this commission on many occasions, including several proceedings involving Pacific Power and Light Company, beginning with Cause U-78-05 in 1980. My other clients have included this Commission, the state Commissions of Idaho and Arizona, and numerous federal, state, and local governmental agencies.

Q: What exhibits are you sponsoring in this proceeding?

A: JL-2 is a numerical exhibit depicting the impact of my proposed change in cost allocation between states. JL-3 is a detail of my experience.

I. INTRODUCTION

Q: What is the purpose of your testimony in this proceeding?

A: I address two topics. The first is the interstate allocation of production and transmission facilities, in which I recommend that the traditional "control-area" approach to allocation be retained, with a separation between the eastern facilities that serve Utah and the western facilities that serve Washington and Oregon. Within this general approach, I further recommend that the Commission consider a "situs" allocation of hydro system costs and benefits, because the social (primarily environmental) costs of hydro facilities are primarily imposed on the state in which the facilities are located. The effect of these recommendations is to reduce the Company's Washington revenue requirement by $34 million compared with the Company rolled-in pricing proposal, and about $21 million compared with the Staff approach of using a melded Western control-area analysis.

I also address rate spread between classes and rate design within classes for the residential and small business customers. In this, I recommend that the Company's proposed rate spread and residential rate design be accepted.

Q: What specific experience do you have that is relevant to the interstate cost allocation issues in this proceeding?

A: My background with Pacific Power and Light Company interstate cost allocation issues spans more than two decades. In Cause U-83-57, I testified on the treatment of the Colstrip 3 project, which came into service, but the output of the plant was effectively sold to Black Hills Power and Light Company for 40 years. I recommended, and the Commission adopted a position that no return from Washington customers should be authorized for this project, because that return would be paid by Black Hills Power and Light Company.

During 1988, I served as a consultant to Public Counsel as an expert witness in the proceeding involving the merger of Pacific Power and Light and Utah Power and Light in Docket U-87-1338 in Washington and to the intervenor Utility Reform Project in Docket UF-4000 in Oregon.

During 2000, I served as a consultant to Public Counsel during Docket No. UE-991832, a PacifiCorp general rate case that ended in a settlement stipulation creating the rate plan that Pacific is now operating under. Interstate cost allocation was an issue in that proceeding, with the Company seeking to impose what was then known as the "Modified Accord." The parties could not agree to accept this methodology, and the stipulation did not address the interstate cost allocation issues, reaching a Washington revenue requirement without reference to system costs or the apportionment thereof.

In 2002 and 2003, I was a consultant to the WUTC Staff during some of the Multistate Process (MSP) discussions, and attended MSP meetings in Las Vegas, Nevada and Boise, Idaho in that role. My long background on these issues was an important element of that consultancy.

II. INTERSTATE COST ALLOCATION

Q: What are the key issues in the interstate allocation of production and transmission costs?

A: Approval of the merger between Pacific Power and Light and Utah Power and Light was predicated upon it being beneficial to Washington ratepayers. As the Commission stated:

> *"Thus, the Commission's concern was that Washington ratepayers receive an equitable share of the benefits."*[1]

Under the Company's proposed approach in this proceeding, this objective is not achieved. This is because the Company assigns a significant portion of the low-cost hydro resources that are a part of the Washington system to the Eastern System, primarily Utah, and assigns a significant portion of the higher-cost thermal resources that are a part of the Utah Power (or Eastern) system to Washington ratepayers.

Q: Why, in your opinion, has the Company assigned these benefits to Utah?

A: It appears that the Company made too many promises at the time of the merger. Utah appears to have expected significant cost savings from the merger through access to the lower-cost Western resources. As detailed below, the states of Washington and Oregon conditioned approval of the merger on a no-harm requirement or net benefit standard for jurisdictional ratepayers. Therefore the merged Company "started" with a problem -- more than 100% of the low-cost resources on its system were committed to serving customers. This is similar to the situation that emerged on the Centralia coal plant sale, where Washington ratepayers were entitled to a proportionate share of the net gain, but the Utah Commission also insisted on a share of the gain in excess of the contribution made by Utah consumers to pay for that resource.

This disparity has grown more serious over time due to significant load growth in Utah and the continued desire of the old Utah Power system to try to

[1] Docket No. U-87-1338-AT, Second Supp. Order, P. 13.

take advantage of low-cost Pacific Power resources. Because of rapid load growth in Utah, new resources have been required to serve Utah load, and the cost of these resources is quite high. If these new resources are allocated among the states in a manner proportionate to load, rather than proportionate to load growth, Washington winds up with a much larger share of the expensive new resources, driving up costs and making the merger detrimental to Washington customers. This would appear to violate the "no-harm" standard that was applied to the merger approval.

Q: What is the basis of your statement that the merger was to be beneficial to Washington ratepayers?

A: In its evidence in the merger proceeding (U-87-1338-AT), the Company identified savings in net power costs of $158 million by the fifth year of the merger. The Company indicated that the merger would have a de minimus effect on the ability of Washington utilities to access the California market.[2] The first statement appears to be untrue -- the combined system has higher costs than the Western system alone. The second statement is only true if the historical "Western" resources (including transmission) are reserved to the Pacific Power customers in Washington, Oregon, and California; otherwise access of Washington customers to the California market is diluted by Utah receiving an allocation of the benefits of this transmission interconnection.

Q: Did the Washington Commission recognize the risk to Washington customers if the two systems were integrated into one, and express caution about that possibility when it considered the merger?

A: Yes. The Commission stated:

> *"The Commission continues to be concerned about the effects on Pacific's ratepayers of merging with a higher cost system, and believes that any integration of the power supply functions for the two companies should be done in a manner consistent with Pacific's least-cost planning process, now getting under way. In the meantime, the Commission views*

[2] U-87-1338-AT, Second Supplemental Order, P. 3 & 9.

Pacific's current average system costs as the appropriate basis for rates."[3]

Q: Did the Oregon Commission take a similar position on the merger?

A: I was also involved in the Oregon merger proceeding, and the Oregon Commission took a much more explicit position in its Order; for brevity I paraphrase the key elements:

- Until a formal adoption of allocation methods was approved, the pre-merger generation and transmission facilities of Pacific and Utah power were to remain the responsibilities of the Pacific and Utah divisions, respectively.

- Post-merger additions were to be equitably allocated between the regions.

- Net power cost savings were to be shared between the regions.

Furthermore, the Oregon Commission's Order specifically identifies the possibility that the newly merged company may not achieve full system cost recovery if its jurisdictions adopt diverging allocation methodologies. Indeed, the summary by the Oregon Commission was quite unambiguous:

> "If Staff and Pacific are unable to reach agreement on an allocation issue, the method of allocation will be determined by the Commission based on the guidelines in the stipulation. Pacific agrees, however, that its shareholders will assume all risks that may result from less than full system cost recovery if interdivisional allocation methods differ among the merged company's jurisdictions."[4] (Emphasis added)
>
> "Lastly, Pacific has agreed to hold Oregon customers harmless if the merger results in greater net costs to serve Oregon customers than if the merger had not occurred. Pacific witness Reed testified that this commitment is not limited in duration and shall apply both

[3] Ibid., P. 14.

[4] Oregon PUC, Order No. 88-767, P. 6

before and after application of the residential exchange credit from BPA."[5]

Q: Have the systems been integrated?

A: No, they have not. The Western system and Eastern system remain two separate control areas. The transmission interconnections between the two are still fairly weak. In fact, the interconnections to the California system from Oregon, and to the Arizona/New Mexico system from Utah remain much stronger than those between the Utah Power system and the Pacific Power and Light Company system.

Q: Are there resources in each system that cannot functionally serve the other?

A: Yes. Resources such as Cholla, Craig, and Hayden simply are not connected to the system in a manner that permits any meaningful flow of power from those power plants into Washington. In my opinion, these resources were acquired for the purpose of supporting wholesale operations and/or to serve Utah load, not to serve Washington customers. Because of Pacific Power's existing resource base and historic transmission connections, power from these resources really cannot reach Washington except under very unusual circumstances.

Q: Are there some lingering prudence issues relating to these particular resources?

A: Yes. In the last proceeding, the settlement specifically did not resolve the prudence issues. In my testimony on that settlement, I opined that it probably would not matter very much in five years time, as the resources would depreciate to the point where they would not be "above market." I think this is now true, and if portions of these were allocated to Washington *in addition to* our share of the Western system resources, they would not cause adverse financial impacts, as the output could likely be sold off-system at compensatory prices. However, the company's proposal is to allocate these resources to Washington *in place of*

[5] Ibid, P. 7

Western system resources, and doing so drives up the cost of service to Washington customers.

III. THE EASTERN SYSTEM HAS HIGHER COSTS

Q: Why is it that the Eastern system that serves Utah has higher costs?

A: The principal reason is that the Eastern system is almost entirely thermal, while the Western system has lower-cost hydro resources. However, the cost of developing new thermal resources in the West has been lower than in the East as well.

My Exhibit ___(JL-2) shows the cost per kilowatt-hour for various utility resources. On Page 1, I first group according to the Company's rolled-in approach, then show the effect of assigning Washington hydro resources to Washington and reducing thermal resources accordingly. On page 2, I show the same resources grouped according to the Control Area approach, and the effect of assigning Washington hydro resources to Washington and reducing Western Control Area thermal resources accordingly. The Company provided this data by power plant and by year; the table below shows the following cost relationships for calendar year 2003:

Resource Group	Cost/mWh
Washington Hydro	$14.48
PP&L Pre-Merger Resources	$23.94
UP&L Pre-Merger Resources	$28.79
Western Post-Merger Resources	$39.94
Eastern Post-Merger Resources	$42.18
Western System Average	$25.02

Eastern System Average	$29.84

Q: What conclusions do you draw from this information?

A: First, the cheapest major resources on the system are the Washington hydro. Second, the Western system was cheaper than the Eastern system when the merger occurred, and even with the sale of Centralia, the pre-merger resources have retained that relationship. Third, the cost of developing new resources has remained lower in the West than in the East. Therefore it is not surprising that the Western system average cost is nearly $5/mWh cheaper than the Eastern system average cost.

Q: What is the Company's proposal for dealing with these cost differentials?

A: The Company proposal is to merge all of these resources into a single pool, and allocate the costs of this melded pool among the states based on loads in each state, resulting in a "system average" of about $28.21 for 2003. The effect of that rolled-in methodology is to charge Washington customers about $3/mWh more than the Western system average cost of power. Given a Washington load of about 5 billion kWh/year, this shifts about $15 million in costs to Washington ratepayers compared with pre-merger conditions, and therefore unambiguously fails the "no harm" standard imposed by the Commission at the time of the merger.

Q: Are there resources that were historically a part of the Pacific Power and Light system that the Company is now treating as "Eastern" resources?

A: Yes. The Wyodak and Dave Johnston power plants were originally a part of the Pacific Power and Light system, as was a majority of the Wyoming load served by the Company today. The Company is treating these as part of the East control area. The Dave Johnston plant, in particular, is a low-cost unit, primarily because it was built in 1959 (45 years ago), and has very little undepreciated rate base.

Q: Should the Commission reclassify these as a part of the Western system?

A: There is clearly an historic basis for that, and doing so would reduce costs in the West. The Oregon staff did an estimate distributed at the July, 2003 MSP meeting in Boise, Idaho that this treatment disadvantaged the Western states by $15 million, of which about 22%, or $3 million, would accrue to Washington. However, due to its age, I expect that Dave Johnston will face major overhaul and pollution control costs in the future, and this cost relationship may not continue for very long. I have not sought to reclassify these units in my analysis, nor have I treated the Wyoming load as a part of the West.

IV. SITUS HYDRO PROPOSAL

Q: What methodology do you propose be used to allocate generation costs between the states?

A: I propose a two-step process. First, each state would be allocated the costs and benefits of hydro resources located within their respective borders. Second, each state would have the remainder of its power needs met with a proportionate allocation of the costs and benefits of the Western or Eastern system thermal and contract resources, as appropriate to the state being examined.

Q: How would this approach affect Washington?

A: In this approach, Washington would be assigned the costs and benefits of the Merwin Dam complex on the Lewis River and the smaller hydro resources in the state. Washington would not receive any of the costs or benefits of the hydro facilities located in Oregon, California, or the Eastern states. Because the Washington hydro can meet a larger proportion of Washington load than is the case in the other states, and because this is a low-cost resource, there are financial benefits to Washington of this approach.

Q: Why is it appropriate to assign hydro costs and benefits on a geographic basis?

A: There are several reasons. Most important, the environmental impacts of hydro are increasingly recognized as being significant economic and non-economic costs. These environmental costs fall primarily on the state in which the resources

are located. Utah fisheries do not suffer from the construction or operation of the Merwin Dam complex; Washington fisheries bear this risk. Utah land is not impounded; Washington land is impounded.

Second, there are significant costs associated with the Company's Oregon hydro projects related to irrigation in the Klamath basin. These "water wars" have become somewhat legendary, pitting endangered species against entrenched irrigation farmers. Washington farmers do not get the benefit of this water diversion from the hydro system, and it is therefore difficult to justify charging Washington ratepayers for the higher power costs that result from diversion of water for irrigation purposes. Keeping this cost and benefit within Oregon provides a reasonable congruity of impacts that could lead to rational land management in the future.

Third is the issue of proximity. The vast majority of the Company's hydro resources pre-date the 500 kv transmission era. All were built to serve relatively nearby loads. Assigning Washington or Oregon resources to Utah makes little sense in this regard; any transmission access that might make it possible to ship power from West to East is purely a byproduct of thermal power development that occurred decades after these hydro projects were constructed. By contrast, the Colstrip and Bridger coal plants, while physically located in the East were built with the explicit purpose of providing power to the customers in Oregon and Washington, and very expensive 500 kv lines were built to move the power. There can be no question that they are Western resources.

Next, there is the issue of generational equity. These hydro projects were not always "cheap." For many years, they had higher costs than power that Pacific Power and Light Company could have purchased from the Bonneville Power Administration. Pacific Power chose to build and retain these resources in light of expected long-run cost increases for non-owned resources. Washington customers paid these higher short-run costs, and under the Company's proposed method of allocation, we would be denied the lower long-run costs that this investment made possible.

Finally, there is the ratepayer investment in protecting the investment from legal challenges. In the case of the Merwin Dam complex in Washington, and the North Umpqua complex in Oregon, Pacific Power spent significant sums on legal proceedings in the late 1970's and early 1980's to protect their investment from eminent domain efforts by nearby public utilities. Washington customers paid for these efforts, not Utah customers.

Q: What percentage of Washington's load can be met with the hydro resources located in Washington?

A: The Washington hydro resources generate about 2.4 billion kwh/year. This is sufficient to meet slightly over half of the load in Washington. Because of the peaking capability of these resources, and the load-following value of hydro, there are also capacity values and ancillary services values to hydro that I have not attempted to isolate and credit to Washington.

Q: How have you measured the effect of the hydro allocation approach that you recommend?

A: I have measured this effect by calculating the impact on Washington revenue requirement from substituting Washington hydro for resources from outside the state.

First, I have measured this effect against the Company's approach of rolling-in all of the thermal resources. This calculation is shown on page 1 of Exhibit ___ (JL-2). It shows a $34.3 million revenue requirement reduction compared with the rolled-in methodology. If the Commission accepts the Company's proposal for a Rolled-In cost allocation method, I recommend that this adjustment be applied in computing Washington power supply costs.

Second, I have measured this effect against the so-called "Control Area" method that I understand staff is relying on in its testimony in this case. This calculation is also shown in Exhibit ___ JL-2, at page 2. It shows a $21.2 million revenue requirement reduction compared with the Control Area methodology. If the Staff approach of a Control Area allocation of power costs is accepted as the

primary basis for interstate cost allocation, I recommend that this adjustment be applied to the Staff's proposed revenue requirement.

V. ADJUSTMENT TO ROLLED-IN METHOD RESULTS

Q: Begin by describing the calculation you have performed in JL-2 using the Rolled-In methodology as the base.

A: In this calculation, I have first computed an average cost of hydro and thermal resources used to meet Washington load on a system average rolled-in basis. This cost is $29.67 / megawatt-hour. I then recomputed the average cost by assigning 100% of the Washington hydro, and none of the hydro located in other states to Washington, and reducing thermal power assigned to Washington commensurately. The weighted average cost of this mix of resources is $22.44 megawatt-hour. The difference, multiplied by the megawatt-hours included in this analysis, is $34,269,125.

The table below shows the resources that make up the adjusted mix based on the twelve months ending March, 2004. The differential is the cost savings that I estimate Washington would achieve if the Washington Hydro were assigned to Washington, but the rest of the rolled-in methodology remained intact.

Resource Group	Cost $/mWh
Washington Hydro	$14.57
System Thermal	$30.63
Average Cost $/mWh	$29.67
Average Washington Cost $/mWh (adjusted for Washington Hydro assignment)	$22.44
Cost Differential, $/mWh	$7.23

Megawatt-hours of hydro and thermal allocated to Washington	4,739,461
Power Cost Differential	$34,269,125

Q: How have you allocated transmission, power purchase and sale contracts, and other cost elements in this calculation?

A. I have not changed those elements. The purpose of my calculation is to demonstrate the order of magnitude of the subsidy of other states that occurs when Washington hydro is diverted away from Washington loads. The "cost differential" shown above is the effect of direct assignment of the hydro costs and energy benefits. Any differential treatment of ancillary services benefits, contracts, or other elements that the Commission found appropriate would increase or decrease this result.

Because the number of megawatt-hours provided by these resources is relatively close to the Washington load, I would not expect inclusion of these additional factors to make a very large difference in my analysis, even if the Commission determined they should be considered.

It might seem natural to include the Company's Mid-Columbia hydro purchases in this analysis as this is unambiguously "hydro" and unambiguously generated in Washington. I have not, in part because at the time those contracts were originated or renewed, it was understood that Oregon would be receiving part of the power. As discussed below, the "Control Area" analysis does limit these resources to Washington and the other Western system states.

VI. ADJUSTMENT TO CONTROL AREA APPROACH RESULTS

Q: Please describe how you have prepared your calculation that begins with the Control Area approach to cost allocation?

A: First I have started with the Company's calculation of the cost of power on a resource-by-resource basis as I did with the Rolled-In approach. However, the Company separately identified the "Western" and "Eastern" systems in its

analysis shown in my Exhibit ___(JL-2), so I began with the Western system costs.

First I assign the Washington hydro to Washington. This is an increase of about 2.4 billion kilowatt-hours per year. I then reduce the thermal power from Colstrip, Bridger, and Hermiston by an equivalent amount. The result is an average cost of power of $19.67 per megawatt-hour, compared with $24.99 per megawatt-hour before the hydro adjustment. This change produces a reduction in Washington power supply cost of $21,243,064 on an annual basis compared with the results when a Control Area allocation methodology is used.

The results of this calculation for the twelve months ending March, 2004 are shown in the table below:

Resource Group	Cost
Washington Hydro	$14.57
Western Thermal	$27.50
Weighted Average	$19.67
Western System Average	$24.99
Cost Differential $/mwh	$5.32
Megawatt-hours of hydro and thermal allocated to Washington	3,992,459
Power Cost Differential $/year	$21,243,064

Q: Please summarize the results of your calculations applying Washington hydro resource costs and benefits to Washington loads?

A: These two analyses show that the diversion of Washington hydro resources to out-of-state electricity consumers would cost Washington ratepayers $21 million/year if the Control Area approach were adopted by the Commission, and $34

million/year if the Rolled-In method were adopted. I recommend that these adjustments be applied to whichever approach the Commission determines to be appropriate.

VII. HOW SHOULD THE COMMISSION USE THESE RESULTS

Q: What is your recommended treatment of this issue in this proceeding?

A: I believe that the Control Area approach is the correct starting point. There is no sound basis for using the Rolled-In approach, because the two systems are not sufficiently linked in either planning or design to facilitate that type of management. Doing so would also fail the "no-harm" and/or "net benefit" tests imposed by the Washington and Oregon state Commissions when the merger was approved.

I further believe that the direct assignment of hydro costs and benefits to the states in which they are located is appropriate, and should be ordered by the Commission.

Q: Are the calculations you have performed sufficiently accurate to set a revenue requirement in this proceeding?

A: No, they are approximate, based on data the Company supplied on an aggregated basis. I requested the Company to perform a cost study using these assumptions, and it indicated that the computer model they have prepared is not adequate to do this (response to Public Counsel data request #219). While the Commission's rules require the Company to re-run its model with our assumptions, if the model cannot portray this cost allocation scheme, then the results of such an effort would not be meaningful.

Q: What do you recommend the Commission do if it adopts the concept that Washington hydro costs and benefits should be directly assigned to Washington?

A: The Commission should make a finding that Washington hydro costs and benefits should remain in Washington. As explained by Mr. Dittmer, with my adjustment (to either the Control Area or Rolled-In approaches), the total revenue requirement would result in a rate reduction.

The Commission would then seem to have two options. It could decline to order a change in rates, due to the rate moratorium that extends to January 1, 2006, and order the Company to file its next proceeding, for rates to take effect at the end of the current rate moratorium, using this allocation method. Alternatively, it could order an immediate reduction in rates to reflect this methodology. The choice between these options is a legal issue, not a technical or policy issue.

VIII. RATE DESIGN

Q: What is your recommendation with respect to rate spread between classes and rate design within classes?

A: I am a co-author of joint testimony on this subject with WUTC Staff Analyst Joelle Steward, and ICNU consultant Donald Schoenbeck. In that testimony, we recommend that Schedule 24 receive a larger than average decrease (or smaller than average increase), and that other classes receive a uniform percentage rate adjustment. We also recommend that the Company's residential rate design proposal be accepted. In the event of a rate increase, the increase should apply by first increasing the customer charge by $0.25/month as proposed by the Company, with the balance applied to the end block for usage over 600 kWh. If the Commission orders a decrease, it should be applied to the initial block of residential usage, reflecting an allocation of Washington low-cost hydro resources to meet the initial block of Washington residential consumption.

Q: Does this complete your prepared testimony?

A: Yes.