BEFORE THE WASHINGTON STATE
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PACIFICORP d/b/a PACIFIC POWER & LIGHT COMPANY Respondent.	)	DOCKET NO. UE-032065

DIRECT TESTIMONY OF RALPH CAVANAGH

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I. Background and Qualifications

Q. PLEASE STATE YOUR NAME, ADDRESS, AND EMPLOYMENT.

A. My name is Ralph Cavanagh. I am the Energy Program Director for the Natural Resources Defense Council, 71 Stevenson Street #1825, San Francisco, CA 94105.

Q. PLEASE OUTLINE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I am a graduate of Yale College and Yale Law School, and I joined NRDC in 1979. I am a member of the faculty of the University of Idaho's Utility Executive Course, and I have been a Visiting Professor of Law at Stanford and UC Berkeley (Boalt Hall). From 1993-2003 I served as a member of the U.S. Secretary of Energy's Advisory Board. My current board memberships include the Bonneville Environmental Foundation, the Center for Energy Efficiency and Renewable Technologies, the Electricity Innovation Institute, and the Northwest Energy Coalition. I have received the Heinz Award for Public Policy (1996) and the Bonneville Power Administration's Award for Exceptional Public Service (1986). My first testimony to the Washington Utilities and Transportation Commission (WUTC) was submitted in 1986 on the issue of Puget Power's energy efficiency investments; I have testified on several subsequent occasions in Puget cases, but this is my first appearance as a witness in a PacifiCorp rate proceeding before the WUTC.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am testifying for the Natural Resources Defense Council, an intervenor in this proceeding with more than 20,000 individual members residing in Washington.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. My testimony identifies significant financial disincentives to sustained investments in cost-effective energy efficiency, fuel substitution, and small-scale "distributed" generating resources by PacifiCorp, and proposes a solution.

Q. WHAT MATERIALS HAVE YOU REVIEWED IN PREPARATION FOR THIS TESTIMONY?

A. I have reviewed the Company's Application in this proceeding and its response to the discovery request of the Natural Resources Defense Council, which is cited below where relevant.

II. Summary of Conclusions and Recommendations

Q. SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS.

A. One of the Company's most important responsibilities involve what the Commission's regulations call "least cost planning": assembling a diversified mix of demand- and supply-side resources designed to minimize the societal costs of reliable electricity supplies.[1] The Company is effectively a resource portfolio manager for its customers, and in the volatile financial markets of the early twenty-first century, the stakes and challenges have never been more daunting. Yet the regulatory status quo undercuts sound portfolio management by penalizing utility shareholders for reductions in electricity throughput over the distribution system, regardless of the cost-effectiveness of any contributing energy-efficiency, distributed-generation or fuel substitution measures.[2] From customers' perspective, increases in throughput (above those contemplated when rates were established) result inappropriately in an uncompensated over-recovery of fixed costs by their utility. And from a least-cost-planning perspective, a grave if unintended pathology of current ratemaking practice is the linkage of utilities' financial health to retail electricity throughput. Increased retail electricity sales produce higher fixed cost recovery and reduced sales have the opposite effect. **My testimony includes a demonstration that a reasonably aggressive five-year energy efficiency investment program in its Washington service territory would automatically inflict almost $19 million in losses on PacifiCorp's shareholders, regardless of the cost-effectiveness of the electricity savings.** To address all these problems, I recommend that the Commission adopt a simple system of periodic true-ups in electric rates, designed to correct for disparities between the Company's

[1] See, e.g., WAC 480-100-238 ("Least-Cost Planning"); http://www.pacificorp.com/File/File25682.pdf, (PacifiCorp's most recent Integrated Resource Plan).

[2] This by no means exhausts the barriers to cost-effective resource portfolio management, and I hope for future opportunities to work with the Commission and interested parties on the full range of issues. One example is the way that the regulatory status quo penalizes shareholders for buying electricity from independent providers as opposed to owning generation, since there is a prospect of returns on investment only for owned (and rate-based) resources.

actual fixed cost recoveries and the revenue requirement approved by the Commission in this proceeding. The true-ups would either restore to the Company or give back to customers the dollars that were under- or over-recovered as a result of fluctuations in retail electricity sales. My recommendations build on precedents established earlier by this Commission.

III. Eliminating Financial Disincentives for PacifiCorp's Demand-Side Investments

a. The Nature of the Problem

Q. WHAT IS THE BASIS FOR YOUR CONCLUSION THAT PACIFICORP'S FIXED COST RECOVERY IS STRONGLY TIED TO ITS RETAIL SALES VOLUMES?

A. Like most utilities, PacifiCorp recovers most of its fixed costs through the rates it charges per kilowatt-hour. In other words, a part of the cost of every kWh represents the system's fixed charges for existing plant and equipment; the rest collects the variable cost of producing that kilowatt-hour. After approving a fixed-cost revenue requirement, the WUTC sets rates based on assumptions about annual kilowatt-hour sales. If sales lag below those assumptions, the Company will not recover its approved fixed-cost revenue requirement. By contrast, if the Company were successful in promoting consumption increases above regulators' expectations, its shareholders would earn a windfall in the form of cost recovery that exceeded the approved revenue requirement. And whether consumption ends up above or below regulators' expectations, every reduction in sales from efficiency improvements yields a corresponding reduction in cost recovery, to the detriment of shareholders.

Q. WHY RECOVER FIXED COSTS IN VOLUMETRIC CHARGES AT ALL? WHY NOT SIMPLY MAKE THEM FIXED CHARGES?

A. Recovering all or most fixed costs as fixed charges would require radical changes in rate design; Attachment 1 to my testimony shows (based on the Company's response to NRDC's discovery request) that almost 63 percent of the Company's proposed revenue requirement from the five major rate classes represents fixed costs of distribution, transmission and generation ($141.4 million out of $224.7 million). Current fixed charges would recover less than one-tenth of this fixed-cost revenue requirement ($12.9 million out of $141.4 million), and the Company's proposed rate structure adjustments would still leave more than $126 million

annually in fixed charges to be recovered through variable demand charges or energy charges. Under both proposed and existing rate structures, energy charges alone would be recovering more than $105 million annually in fixed costs for PacifiCorp in Washington.

Q. BUT DOESN'T CONTINUING TO RECOVER FIXED COSTS AS PART OF VOLUMETRIC CHARGES MAKE ADDITIONAL CONSUMPTION LOOK MORE COSTLY THAN IT SHOULD?

A. That amounts to contending that the Commission is suppressing beneficial increases in electricity use through its rate structure, and I strongly disagree. The rationale for least-cost planning rests in part on the conclusion that extensive market failures continue to block energy savings that are much cheaper than additional energy production at today's electricity prices. We would make a bad situation worse by reducing customers' rewards for conserving electricity, which is precisely what would happen if the Company shifted costs from volumetric to fixed charges.

Q. DESCRIBE THE EVIDENCE THAT MARKET FAILURES CONTINUE TO BLOCK HIGHLY COST-EFFECTIVE ENERGY SAVINGS AT TODAY'S ELECTRICITY PRICES.

A. Overwhelming evidence has been marshaled in recent years by the National Research Council of the National Academy of Sciences, the U.S. Congress's Office of Technology Assessment, the National Association of Regulatory Utility Commissioners, and the national laboratories, among many others. Although "[t]he efficiency of practically every end use of energy can be improved relatively inexpensively,"[3] "customers are generally not motivated to undertake investments in end-use efficiency unless the payback time is very short, six months to three years . . . The phenomenon is not only independent of the customer sector, but also is found irrespective of the particular end uses and technologies involved."[4] Typically, customers are demanding rates of return of 40-100+%, and such expectations differ sharply

[3] U.S. National Academy of Sciences Committee on Science, Engineering and Public Policy, Policy Implications of Greenhouse Warming, p. 74 (1991). A more recent review of energy-efficiency opportunities and barriers appears in National Research Council, Energy Research at DOE: Was it Worth It? (September 2001).
[4] National Association of Regulatory Utility Commissioners, Least Cost Utility Planning Handbook, Vol. II, p. II-9 (December 1988).

from those of investors in electric generation. Utilities' returns on capital average 12% or less. The imbalance between the perspectives of consumers and utilities invite large, relatively low-return investments in generation that could be displaced with more lucrative energy efficiency. These widely documented market failures generate "systematic underinvestment in energy efficiency," resulting in electricity consumption at least 20-40% higher than cost-minimizing levels.[5]

There are many explanations for the almost universal reluctance to make long-term energy efficiency investments.[6] Decisions about efficiency levels often are made by people who will not be paying the electricity bills, such as landlords or developers of commercial office space. Many buildings are occupied for their entire lives by very temporary owners or renters, each unwilling to make long-term improvements that would mostly reward subsequent users. And sometimes what looks like apathy about efficiency merely reflects inadequate information or time to evaluate it, as everyone knows who has rushed to replace a broken water heater, furnace or refrigerator.

Market failures like these mean that energy prices alone are a grossly insufficient incentive to exploit even the most inexpensive savings: customers who insist on two-year paybacks and see average rates of 7 cents/kWh "can be expected to forego demand-side measures with costs of conserved energy of more than 0.9 cents/kWh."[7] That is, energy prices would have to increase about eightfold to overcome the gap that typically emerges in practice between the perspectives of investors in energy efficiency and production, respectively.

Q. ARE YOU ADVOCATING PUNITIVELY HIGH ELECTRICITY RATES AS A SOLUTION TO THESE MARKET FAILURES?

A. Certainly not, any more than I advocate changes in rate structure that would reduce rewards for saving electricity. Instead, I urge increased reliance on the very solution that both the Commission and the PacifiCorp have endorsed in their longstanding support for least-

[5] See M. Levine, J. Koomey, J. McMahon, A. Sanstad & E. Hirst, Energy Efficiency Policy and Market Failures, 20 Annual Review of Energy and the Environment 535, 536 & 547 (1995).
[6] An extensive assessment appears in U.S. Congress, Office of Technology Assessment, Building Energy Efficiency, at pp. 73-85 (1992).
[7] National Association of Regulatory Utility Commissioners, note 4 above, p. II-10.

cost planning: pursuit of cost-effective energy efficiency through utility investments rather than punitive prices.

Q. WHAT WOULD HAPPEN TO PACIFICORP'S PROSPECTS FOR RECOVERING AUTHORIZED FIXED COSTS IF IT WERE TO EXPLOIT THE HUGE POTENTIAL FOR COST-EFFECTIVE ELECTRICITY SAVINGS?

A. Although the societal and customer benefits would be significant, including avoided pollution and savings in both generation purchases and grid infrastructure investment, every additional unsold kilowatt-hour would reduce the company's fixed-cost recovery and undercut shareholder welfare, unless the Commission changed current ratemaking policies. Until this problem is solved, PacifiCorp will lag in both aspirations and achievements on the demand side.

b. The Potential Magnitude of the Problem

Q. HOW SUBSTANTIAL ARE POTENTIAL SHAREHOLDER LOSSES FROM REDUCED KILOWATT-HOUR SALES?

A. The Company's proposed fixed cost revenue requirement for the five major customer classes (see Attachment 1) is $141.4 million, of which $128.5 million would be recovered from variable demand and energy charges if current fixed charges are retained; energy charges alone would account for $113 million. The Company's proposed rate structure adjustments would reduce these numbers only slightly, to $126.4 million and $105.8 million, respectively. Either way, every one percent reduction in electricity use and demand on the Company's system would cut annual fixed cost recovery totals by more than $1.26 million; every one percent increase would have the opposite effect. Since many efficiency measures last ten years or more, these one-year impacts must be multiplied at least tenfold when assessing shareholder interests.

But the losses get even worse in the context of multi-year programs initiated under a long-term resource plan. Consider a five-year program that pursues annual savings equivalent to one percent of system load in the initial year, with each year adding new savings equivalent to the savings achieved during the previous year, and all savings persisting for at

least five years. The first year impact on fixed cost recovery is then at least $1.26 million dollars, followed by $2.52 million dollars in the second year (as an equal amount of savings is added), and so on: **the automatic five-year loss to shareholders from this steady-state utility investment program would be almost nineteen million dollars**,[8] with shareholder losses continuing to escalate in succeeding years as initial electricity savings persisted (with some gradual erosion) and more savings were added. Note that the shareholders would be absorbing these losses even as society gained from substituting less costly energy efficiency for more costly generation.

Q. WHAT MAKES YOU THINK UTILITIES CAN SUSTAIN COST-EFFECTIVE ENERGY EFFICIENCY PROGRAMS EQUIVALENT TO ABOUT ONE PERCENT OF SYSTEM CONSUMPTION?

A. The California Energy Commission has already recommended more ambitious targets for California's utilities. Proposed electricity savings targets are 1.08% of system load in 2007, ramping up to 1.13% in 2013. By comparison, for 2004 and 2005, the annual savings targets already adopted for California's investor-owned utilities represent about 0.85% of system load.[9] The Northwest Power Planning Council's latest estimate of cost-effective and achievable regional potential is of the same magnitude, even though it largely excludes the industrial sector.[10] Moreover, given previous levels of energy efficiency investment in the two states and comparative electricity prices, I would expect Washington to have untapped energy efficiency opportunities at least equal to California's, in relative terms.

[8] The minimum loss figure is the sum of $1.26 million + $2.52m + $3.78m + $5.04m + 6.30m = $18.90 million.

[9] See CEC Staff Report, Proposed Energy Savings Goals for Energy Efficiency Programs in California, (Publication #100-03-021: October 27, 2003). The recommended annual energy savings target in 2007 is 3,000 GWh (1.08% of load) and 3,400 GWh in 2013 (1.13% of load). The annual energy savings for the 04-05 programs are from California Public Utilities Commission, D.03-12-062 (2003); the demand forecast for 2004-05 is from CEC, California Energy Demand 2003-2013 Forecast (Publication #100-03-002: 2003), Appendix A.

[10] The Council estimates the achievable, cost-effective regional energy efficiency potential at about 150 average MW per year over the next 20 years (with an average cost of savings under 2.5 cents/kWh), equivalent to just under one percent of current system loads per year, and this figure assumes only a five percent improvement in average industrial sector efficiency over that period. See Northwest Power Planning Council, Conservation Resource Potential in the Fifth Power Plan: Economically Achievable Potential and Total Resource Cost Tests (April 8, 2004) (available at http://www.nwppc.org/news/2004_04/3.pdf).

Q. WOULD COST-EFFECTIVE FUEL SUBSTITUTION AND DISTRIBUTED GENERATION PROGRAMS HAVE THE SAME KIND OF ADVERSE EFFECT ON COMPANY EARNINGS?

A. Yes. Substituting efficient gas applications for electricity, or adding distributed generation on the customer's side of the meter, reduces retail kilowatt-hour sales and has adverse effects on fixed-cost recovery that are identical (per kWh of lost retail sales) to those described above.

c. The Solution: Removing Disincentives with Rate True-Ups

Q. IF YOU OPPOSE HIGHER FIXED CHARGES, HOW WOULD YOU PROPOSE TO REMOVE THE FINANCIAL DISINCENTIVES DESCRIBED IN EARLIER SECTIONS OF YOUR TESTIMONY?

A. I support the joint recommendation of the Natural Resources Defense Council and the Edison Electric Institute to the National Association of Regulatory Utility Commissioners in November 2003: "To eliminate a powerful disincentive for energy efficiency and distributed-resource investment, we both support the use of modest, regular true-ups in rates to ensure that any fixed costs recovered in kilowatt-hour charges are not held hostage to sales volumes."[11] The state regulatory community has more than two decades of experience with such mechanisms, which involve a simple comparison of actual sales to predicted sales, followed by an equally simple determination of actual versus authorized fixed cost recovery during the period under review. The difference is then either refunded to customers or restored to the Company. Note that the true-up can go in either direction, depending on whether actual retail sales are above or below regulators' initial expectations.

PacifiCorp's filing includes an endorsement of this policy by CEO Judi Johansen:

> The Company's objectives in filing this rate case [include] eliminat[ing] financial disincentives to promoting energy efficiency improvements throughout the company's service territory . . . From a least-cost planning perspective, the problem with current ratemaking practice is the linkage of utilities' financial health to retail electricity throughput. Increased retail electricity sales produce higher fixed cost recovery and

[11] Letter to NARUC Commissioners from the Edison Electric Institute and the Natural Resources Defense Council, November 18, 2003, p. 3 (see Attachment 2).

> reduced sales have the opposite effect. To remove a conservation disincentive, we would propose that the parties agree to and the Commission endorse the adoption of a simple system of periodic true-ups to electric rates, designed to correct for the disparities between utilities' actual fixed cost recoveries and the revenue requirement approved by this Commission. The true-ups would either restore to the utilities or give back to customers the dollars that were under- or over-recovered as a result of annual throughput fluctuations.[12]

Q. IS THERE PRECEDENT FOR SUCH A MECHANISM IN WASHINGTON?

A. All the key elements of this proposal appeared in a revenue cap mechanism adopted by the Commission for Puget in 1991. As the Commission determined at that time:

> [T]he revenue per customer mechanism does not insulate the company from fluctuations in economic conditions, because a robust economy would create additional customers and hence, additional revenue. Furthermore, the Commission believes that a mechanism that attempts to identify and correct only for sales reductions associated with company-sponsored conservation programs may be unduly difficult to implement and monitor. The company would have an incentive to artificially inflate estimates of sales reductions while actually achieving little conservation.[13]

The Commission implemented Puget's revenue-per-customer cap by "set[ting] up a deferred account allowing a reconciliation of revenue and expenses that would be subject to hearing and review."[14]

Q. BUT DIDN'T THE COMMISSION SUBSEQUENTLY REPUDIATE THIS REVENUE-PER-CUSTOMER CAP?

A. No, and I can underscore that response based on my own involvement throughout the process. In its initial review of the mechanism that it had adopted two years earlier, the Commission in 1993 "accept[ed] the parties representations" that the revenue-per-customer cap had "achieved its primary goal – the removal of disincentives to conservation investment," and concluded that "Puget has developed a distinguished reputation because of its conservation

[12] See pp. 3 & 6 of the Direct Testimony of Judith A. Johansen, Washington Utilities and Transportation Comm'n v. PacifiCorp, Docket No. UE-032065 (December 2003).
[13] Docket No. UE-901183-T, Third Supplemental Order (April 10, 1991), p. 10. The Commission also determined that the mechanism did not constitute retroactive ratemaking, and that it was "fair, just and reasonable" even though it did not perfectly match costs and rates: "even under the current system of ratemaking, costs and rates will diverge immediately following implementation of a rate change." Id. at p. 10.
[14] Id., at p. 10.

programs and is now considered a national leader in this area."[15] Based on these findings, the Commission granted a three-year extension of the revenue-per-customer cap.[16] In 1995, as part of a litigation settlement proposal intended to create no precedent, Puget and several other parties filed a request with the Commission to terminate a complex system of rate adjustment mechanisms that included the revenue-per-customer cap (along with, e.g., a controversial approach to allocating risks of hydropower fluctuations). The Commission approved that request, but the proposal itself expressly reserved the right of all parties to bring forward in the future "other rate adjustment mechanisms, including decoupling mechanisms, lost revenue calculations, [and] similar methods for removing or reducing utility disincentives to acquire conservation resources."[17] PacifiCorp and NRDC are now doing precisely that, and in my view late is very much better than never.

Q. WOULD YOUR PROPOSED TRUE-UPS INTRODUCE SIGNIFICANT NEW VOLATILITY IN ELECTRICITY RATES?

A. No, because consumption does not fluctuate enough from year to year to require disruptive true-ups. Even aggressive conservation programs would not reduce loads by more than about one percent per year, as discussed above, and even under the extraordinary conditions prevailing in some recent years, PacifiCorp's retail electricity sales in Washington never dropped by more than 3.3 percent (actual) and 1.6 percent (weather adjusted), respectively.[18] My analysis of PacifiCorp's retail sales and rates indicates that the largest plausible annual impact of a true-up mechanism would be about two percent of retail rates: less than 1.5 mills per kilowatt-hour. The need for rate adjustments can be reduced further by integrating cost-effective energy efficiency targets into the forecasts developed for purposes of setting retail rates in this proceeding.

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[15] See Washington UTC, Eleventh Supplemental Order, Docket No. UE-920433, p. 10 (September 21, 1993).
[16] See id. , p. 10 (concluding that "the PRAM/decoupling experiment should continue for at least another three-year cycle").
[17] Docket No. UE-921262, Joint Report and Proposal Regarding Termination of the Periodic Rate Adjustment Mechanism (April 20, 1995).
[18] See Attachment 1, which provides actual and normalized annual electricity sales over the past decade. Normalized retail kWh sales dropped by 1.6 percent in 2002; actual sales dropped by 3.3 percent.

Q. EXPLAIN YOUR CONCLUSION ABOUT THE RATE IMPACTS OF A TRUE-UP MECHANISM.

A. A true-up mechanism would give back or restore the difference between authorized fixed cost recovery and actual recovery based on actual sales. Assuming that the Commission approves the Company's requested fixed cost revenue requirement of $141.4 million for the five major customer classes (see Attachment 1), and assuming that current fixed charges are not increased, $128.5 million annually must be recovered from energy and demand charges. This means that $1.285 million would be lost or gained for every one percent by which sales diverged from assumptions used to set rates.

Under these assumptions, a "worst case" annual rate impact of a true-up mechanism would come in a year comparable to 2002, when retail sales dropped by just over three percent (actual) and under two percent (normalized) at a time when the Company was not making substantial energy efficiency investments. Assuming that such impacts were added to those of robust efficiency programs with savings equivalent to one percent of system-wide consumption, the true-up mechanism would still only have to restore about $5.14 million to compensate for a four percent reduction in consumption and associated fixed-cost recovery (and less if the initial forecast had anticipated the energy-efficiency impacts). With a total revenue requirement of $225 million (assuming that the Company's request is granted), this implies a rate increase of 2.3% for the true-up under worst-case conditions (average for all classes). Such an increase would be equivalent to less than 1.3 mills/kWh, on average, based on a weighted average rate for all classes of 5.708 cents per kWh.[19] Under more typical circumstances in which consumption increases outpaced efficiency impacts, of course, the true-up could easily result in a modest rate reduction. Since 1995, PacifiCorp's actual and normalized retail sales in Washington have increased by 12.4% and 10.3%, respectively (see Attachment 1). As shown in the illustrative calculation above, rate impacts up or down under a true-up mechanism will necessarily be modest as long as corrections occur on a regular basis and balances do not accumulate significantly over multiple years.

[19] See Exhibit WRG-3 (Griffith), p. 1 of 3.

Q. IS THERE RELEVANT RECENT EXPERIENCE IN OTHER STATES?

A. The most recent regional experience with a true-up mechanism came in Oregon with PacifiCorp's "Alternative Form of Regulation," which was adopted in 1998.[20] Initial rate impacts of the Oregon mechanism were extremely modest for all classes, and (as predicted) went in both directions:

	1999	2000	2001
Residential:	-0.39%	+1.90%	+1.85%
Small General Service:	-0.60%	-0.22%	+0.06%
General Service:	-0.83%	-0.31%	+0.09%
Large General Service:	+0.61%	+0.33%	-0.30%
Irrigation:	+0.45%	+0.25%	-0.20%

California has embraced a still broader true-up policy for all its investor-owned utilities, covering fixed costs of generation, transmission and distribution, and New York State's regulators are conducting a rulemaking on the issue, with a decision expected soon.[21] In New York, proponents of a true-up mechanism form a diverse coalition of over 80 stakeholders, including Carrier Corporation, Johnson Controls, the Real Estate Board of New York, the Power Authority, and the New York Attorney General.

In May 2004, the Idaho Public Utilities Commission opened a proceeding to address financial disincentives for Idaho Power's energy efficiency investments and performance-based incentives tied to the utility's success in delivering cost-effective savings. Case No. IPC-E-03-13, Order No. 29505 (May 25, 2004), pp. 68-69. (The order in its entirety is available at http://www.puc.state.id.us/fileroom/electric/ipc-e-03-13/on29505.pdf.)

[20] Oregon PUC, Order No. 98-191 (May 5, 1998) (covering 1998 – 2001). These rate impact data were supplied to the author by PacifiCorp's Paul Wrigley.

[21] See California Public Utilities Code section 739.10; New York Public Service Commission, Order Instituting Proceeding, Case 03-E-0640 (Proceeding on Motion of the Commission to Investigate Potential Electric Delivery Rate Disincentives Against the Promotion of Energy Efficiency, Renewable Technologies and Distributed Generation (May 2, 2003)).

Q. WHY DON'T MORE STATES HAVE TRUE-UP MECHANISMS IN PLACE TO ELIMINATE DISINCENTIVES FOR UTILITY INVESTMENT IN DEMAND-SIDE RESOURCES?

A. A strong trend in that direction was interrupted in the mid-1990s by a stampede toward an industry restructuring model (pioneered in California) that denied utilities any substantial role in resource planning or investment. On that theory, there was no reason to worry about utilities' energy efficiency incentives, because utilities would be transferring their resource management responsibilities to unregulated participants in wholesale and retail electricity markets. The Western electricity crisis of 2000-2001 has discredited that model, which in any case never took hold in Washington. Most states are now restoring full or at least significant utility responsibility for resource portfolio management, and interest in true-up mechanisms is reviving, as illustrated by Attachment 2 (Letter from Edison Electric Institute and Natural Resources Defense Council to NARUC).

Q. WHAT ARE THE MOST IMPORTANT DESIGN ISSUES THAT THE COMMISSION NEEDS TO RESOLVE IN CREATING A TRUE-UP MECHANISM FOR PACIFICORP?

A. Once the Commission has approved an initial fixed-cost revenue requirement and established retail rates based on an estimate of retail sales, several basic questions remain to be resolved:

- How will the approved fixed-cost revenue requirement be adjusted between rate cases to reflect changing conditions, including system growth (options include adjustments to reflect inflation or customer growth)?
- For purposes of calculating and applying the true-ups, will the Commission merge all five major customer classes or treat each one separately?
- Will annual retail sales be adjusted for weather-driven fluctuations before the true-ups are calculated?
- How often will true-ups occur, and will they be capped at some level of maximum annual rate impact, with balances carried forward as necessary?

IV. Specific Recommendations for the Commission

Q. HOW WOULD YOU RESOLVE THE QUESTIONS THAT YOU HAVE JUST POSED, AND WHAT SPECIFIC TRUE-UP MECHANISM DO YOU RECOMMEND THAT THE COMMISSION ADOPT IN THIS PROCEEDING?

A. Each question is straightforward and an abundance of analysis and experience shows that there is more than one reasonable solution.[22] Rather than proposing my own resolution here, I recommend that the Commission make the basic policy decision that a true-up mechanism to eliminate financial disincentives for demand-side solutions is in the public interest. The Commission could then provide a reasonable period (e.g., three to six months) for the Company and interested parties to seek as much consensus as possible on design recommendations for the Commission's consideration. I believe that if the Commission resolves the fundamental policy question, the Company and other interested parties will be able either to identify a preferred solution with wide support, or at minimum to narrow and frame the issues in ways that will help the Commission achieve a swift and sound resolution.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes.

Dated this 29th day of June, 2004

Ralph Cavanagh

[22] See, e.g., E. Hirst, Statistical Recoupling: A New Way to Break the Link Between Electric-Utility Sales and Revenues (Oak Ridge National Laboratory: September 1993); S. Carter, Breaking the Consumption Habit: Ratemaking for Efficient Resource Decisions, Electricity Journal (December 2001), pp. 66-74; J. Eto, S. Stoft & T. Belden, The Theory and Practice of Decoupling (Lawrence Berkeley National Laboratory: January 1994); Marnay & Comnes, Ratemaking for Conservation: The California ERAM Experience (Lawrence Berkeley National Laboratory: March 1990); Oregon PUC, Order No. 98-191 (May 5, 1998) (establishing a true-up mechanism for PacifiCorp).