

April 24, 2013

Washington Utilities and Transportation Commission  
1300 Evergreen Park Dr. SW  
Olympia, WA 98504

**RE: DOCKETS UG-120790 & UG-121119**

Dear Commissioners:

I have been contacted by several interested groups about these conservation dockets. I was involved in nearly all of the Commission's major decisions launching energy conservation programs, and the development of the cost tests used. These comments are strictly my own, based on my years of experience with these programs. They are not submitted on behalf of any of the active parties.

I believe that the best course of action is to grant a temporary waiver from compliance with cost-effectiveness tests for existing Avista gas conservation programs, rather than terminating any programs or abandoning the TRC cost-effectiveness test. At the same time, the Commission should undertake a more thorough examination of what are known as "other program benefits" or "non-energy benefits" that should be included in a total resource cost and societal cost test so that future decisions can be informed by adequate analysis.

### **Some History**

This docket seems to be directed at the problems with incomplete application of the TRC test, and substituting the UCT test in its place.

In 1978, the Commission approved conservation programs based on the RIM test; at that time, retail electric rates were about \$.02/kWh and the cost of new resources was at least \$.06/kWh for Colstrip, WPPSS, and other planned sources. Under those circumstances, all consumers benefitted from lower bills by subsidizing conservation of other consumers. But the RIM test no longer supported company programs, and in 1982, the Commission considered alternatives, and abandoned the RIM test. While I believed the TRC test had been approved, Puget used a UCT test for some of its programs, and this led to a proposed disallowance of 1990 program expenses.

The Commission rejected the UCT test in Docket UE-920630, where it ordered that the TRC test be used prospectively; it did not disallow the past program expenses. I think it is important that the framework of that decision, and the issues that led to it, not be forgotten. The Commission stated:

In 1990, Puget Sound Power and Light Company provided rebates for heat pump installations to owners of mobile homes. It justified those rebates using the UCT. Upon examination, it was

learned that this program targeted mobile home parks where Cascade Natural Gas Company was planning to expand natural gas service. Testimony before the Commission supported the notion that Puget was really involved in a load-retention program, to keep half of the space heating load and all of the water heating load, under the guise of a “conservation” program. It was shown that converting these customers to natural gas space and water heat was cost-effective, and that investing in heat pumps was not.<sup>1</sup>

The Commission responded, ordering Puget to apply the TRC test. Extensive negotiations ensued, with Puget, WUTC Staff, Public Counsel, Northwest Power and Conservation Council, and Washington State Energy Office representatives, to find the right solution. These were very tempestuous negotiations. The process ended with a new conservation tariff that complied with the TRC, but still provided a funding route for measures that did not “stand alone” on a TRC basis. That called for the utility to pay up to 100% of the cost of measures that met the TRC, and then a declining contribution towards measures with stand-alone costs that exceeded the TRC threshold, down to a “minimum payment” level for measures costing more than 150% of TRC on a stand-alone basis, but having identified but unquantified non-energy benefits. I have attached the final memo I prepared in those negotiations that became the basis of the new tariff.<sup>2</sup>

## Addressing the Concerns

The problem we have seen nationally since this time is that utilities normally consider only utility system benefits when examining energy efficiency measures, and thus the “benefits” used in both UCT and TRC calculations are typically identical, while the TRC includes additional costs – those paid by participants and third parties. As a result, many measures fail TRC if the utility system benefits alone are not adequate to cover total measure costs.

The issue really comes down to consideration of non-energy benefits in the cost-effectiveness calculation. Some of these are truly immense, and should not be ignored. I’ll provide a couple of examples:

- **Low-income weatherization:** An analysis from New Zealand showed that weatherized homes resulted in a 43% reduction in hospital admissions for respiratory ailments, a 39% reduction in days lost at work, and a 23% reduction in days lost at school. While the program was found to be “barely” cost-effective on an energy-only basis, the overall TRC Benefit/Cost ratio was nearly 10:1, because the health benefits were about nine times as great as the energy benefits that would be considered in a UCT test.

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<sup>1</sup> Heat pump efficiency has improved dramatically since 1990; I do not assert that the same analysis, undertaken today, would produce the same results as were before the Commission in UE-920630

<sup>2</sup> The tariff itself has been revised so many times since then that the framework agreed to at that time – a slope from full funding for measures meeting TRC to “minimum payment” funding for measures with unquantified non-energy benefits – has not survived.

- **Office Lighting:** Analysis presented to the NW Power and Conservation Council Regional Technical Forum (RTF) showed that improved quality of lighting from a lighting retrofit could result in 1% - 3% improvements in employee productivity. These TRC benefits were two to four times as valuable as the energy benefits considered in the UCT test.
- **Horizontal-axis Washers:** The RTF valued the savings from not only electricity, but also natural gas (less water heating and drying energy), water supply, wastewater treatment, and soap consumption from incensing H-axis washers. The non-electricity benefits were about 4 times the electricity benefits, leading to these measures being found cost-effective in the Fifth (and Sixth) Power Plans.

There is little doubt that there are substantial non-quantified benefits of Avista's gas conservation program. These include air quality, health, local economic development, and avoided collection, shutoff, and reconnection costs. WSU has quantified these types of benefits for the low-income weatherization programs operated by electric utilities<sup>3</sup>, but similar analysis has not been done for gas, nor included in Avista's cost-effectiveness analysis.

By constraining demand for gas, this program helps keep the gas market "soft" and thus holds down the market price of gas for all other gas users. This effect, known as Demand-Response Induced Price Effects (DRIPE) is a hot topic in the energy economics world today. It basically measures what I called (at the time of the second oil embargo, in 1977\78, when I was an analyst for the Washington State Senate): "*The only way to beat OPEC is to not buy what they sell.*" The DRIPE benefits have not been considered by Avista.

## **Bottom Line**

There are many non-energy benefits associated with gas conservation, and not all have been considered or quantified. The Commission's adoption of the TRC was implemented at the time it was ordered in a manner that allowed customers to pay a portion of measure costs commensurate with the non-energy benefits when the energy benefits alone were not sufficient to justify utility payment of the full costs. Avista seems to have neglected these principles in developing its two proposals – one to terminate the programs, the other to abandon the relevant cost test.

I have attached to these comments three relevant documents:

- a) My 1982 paper, "The No-Loser's Test is Really a Hardly-Any-Winners Test" that was the basis for the Commission abandoning the RIM test in 1983;
- b) The summary memo that I wrote to the other participants in the 1992 negotiations that became the foundation for implementation of the TRC test in 1993, with a "sloping

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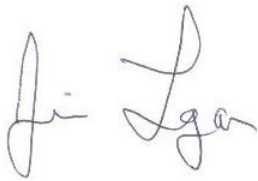
<sup>3</sup> Washington State Low-Income Weatherization Program Evaluation Report For FY2010 Final Report May 2011 WSUEEP11-025

payment level” from full-funding at 100% or less of TRC to a “minimum payment level” for higher cost measures;

- c) A recent Regulatory Assistance Project paper on the issue of which cost test should be used.

I urge the Commission to retain the TRC, retain the Avista programs, and direct parties to do a better job quantifying non-energy benefits within their application of the TRC.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Lazar". The signature is written in a cursive style with a large initial "J" and "L".

Jim Lazar, Consulting Economist  
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