

Docket UG-121207

Additional Comments of

Washington Department of Commerce – State Energy Office

November 30, 2012

1. The role of program costs in assessing the cost-effectiveness of conservation programs.

Benefit-cost analysis requires careful assessment of costs as one examines different aspects of a program. The concepts of incremental costs and joint or common costs are familiar in economic analysis, and the Commission has dealt with these concepts many times, particularly in setting prices for a regulated firm that offers multiple services. Most of the benefit-cost analysis that occurs in evaluation of conservation programs does not require careful consideration of joint costs or program costs, because the relevant questions are usually which measures to include. The program costs are not incremental in such an analysis.

When the question is whether to operate a conservation program at all, the assessment of program-level costs is much more important. The ultimate question in such an analysis is whether the customers are better off with the program than without the program. The appropriate question is not whether the program covers costs in an accounting sense, because the accounting concept of cost usually includes some expenses that are allocated or assigned on a basis that does not reflect cost causation. These methods can include allocation using loading factors based on direct costs or allocation based on therm or Btu savings. If the Commission finds itself deciding whether to suspend a company's natural gas program because its overall costs appear to exceed its overall benefits, it is important that the Commission consider whether all of those "costs" are actually incremental to the program that would be suspended. If they are incremental, the expenses will not be incurred upon suspension. If the expenses will be shifted to another department or program, they are not incremental and are not properly included in a benefit-cost analysis of the program.

2. Consistency of input assumptions across utilities.

Each utility is responsible for its own resource planning and the prudence of its own conservation programs, but the Commission should take note when inputs vary widely from one utility to another. There has been a great deal of research and evaluation by the electric and natural gas utilities of the region regarding the costs and energy savings that result from energy efficiency programs, which should yield some consistency across the benefit-costs analyses performed by the four natural gas utilities. In at least one example, there is no such consistency. The assumed useful life of residential insulation measures varies from 20 years for one utility to 45 years at another utility. This assumption has no effect on the quantity of conservation available, but it can dramatically affect a cost-effectiveness calculation. Spreading the investment cost over 20 years yields a cost 42% higher than if the same investment is spread over 45 years.

If this variation in assumptions is based in fact, then it should be reflected in the analysis. However, benefit-cost analysis is often an exercise in demonstrating the prudence or value of an investment or program, and that demonstration can be more effective if "conservative" assumptions are used for inputs that are subject to uncertainty. If the analysis with conservative assumptions yields a negative benefit-cost result, then it is important to consider whether those assumptions are reasonable.

3. Role of non-energy benefits in assessing conservation programs.

This was discussed at the workshop, but it is worth further emphasis. There appeared to be little disagreement with the point that non-energy benefits are properly included when they can be measured, but the more difficult question is how to proceed when those benefits cannot be measured. If the analysis yields a positive benefit-cost result, then it is easy to set aside the unmeasured non-energy benefits. This is another example in using conservative assumptions in the analysis. However, if an investment or program fails the benefit-cost test when energy benefits alone are considered, then ignoring non-energy benefits can lead to incorrect conclusions. Participants in energy efficiency programs commonly report benefits other than the savings on their utility bills, including occupant comfort, lower maintenance costs and increased productivity. A recent evaluation for Avista found that 75 percent of participants reported such benefits.

It is worth noting that benefit-cost tests are not applied to every resource acquisition involving a customer and a utility. Notably, utilities routinely assist customers in acquiring renewable resources through "green power" programs or customer-installed solar photovoltaic systems. These programs would likely not pass a resource acquisition benefit-cost test if the test were limited to quantifiable energy benefits and costs. A solar installation might cost \$25,000 to install and produce energy worth \$10,000 over its lifetime. However, policy makers recognize that such a resource provides other benefits to participants.

In the presence of known but unmeasured non-energy benefits, regulators must apply some judgment to the analytical results. Where programs appear to provide value to participants and advance societal goals, it may be appropriate to tolerate something less than a 1.0 benefit-cost ratio. It would also be appropriate to examine the program design with an eye on ensuring that participants are not receiving a disproportionate or unnecessary benefit from the program.