

## Regarding Natural Gas Conservation Program Cost-Effectiveness

Energy Project Comments

Re: UG-121207: Investigation into Natural Gas Conservation Programs

Submitted by Charles Eberdt

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The Energy Project appreciates the time and effort the Commissioners and UTC Staff are putting into the planning and implementation of natural gas energy conservation programs. We believe this is an important public policy issue that has far-reaching ramifications for the residents and businesses of the state and the impact of climate change, as well as the future of utility energy conservation programs. With that as an overall statement of our perspective, we will address our specific comments with a much more limited focus.

1. Should [the] Commission continue to use the Total Resource Cost (TRC) [test], or switch to using the Utility Cost Test (UCT), to evaluate the cost-effectiveness of the portfolio of natural gas conservation programs?

Generally speaking, our advice is that the Commission should lean to the more inclusive test. We recently participated in a Regulatory Assistance Project webinar that, in part, addressed this very question. The presenter, Tim Woolf, a Vice-President of Synapse Energy Economics, Inc. and former Commissioner with the Massachusetts Department of Public Utilities, advocated for using the Program Administrator Cost Test (or UCT) on the portfolio level, but the TRC on the program level. When asked why not just the TRC, he replied that applying the TRC at the program level first would mean that the portfolio level would automatically pass the TRC. At that point, applying the UCT on the portfolio level provides some assurance that rate payers are not over paying for energy conservation.

While this seems logical and reasonable, we believe there remains another question. One of our Commissioners raised this very question at one of the two hearings discussion natural gas program cost effectiveness. Even if we choose to apply the tests in this way, what is the “right number”? Does the portfolio have to pass the UCT at 1.0, or is 0.9, or some lower number sufficient and a better policy given that there is some amount of imprecision in the inputs. Should the Commission decide to use the UCT for the portfolio level, we strongly encourage a threshold less than 1.0 and hope that a reasonable number could be statistically derived.

With regard to this question, it is important to note another critical point Mr. Woolf made in his presentation. The TRC should include non-energy benefits from both the utility perspective and the participant’s perspective. The fact that these are not easily quantified is not a justification to ignore them. Equity is a key public policy consideration in energy conservation programs. It should be a key consideration in balancing the impact of applying the TRC or the UCT.

2. What criteria should be met before stopping a portfolio of programs?

Staff have been thorough and creative in addressing this decision.

3. Accounting for program start and stop costs in the cost effectiveness test.

As we said in previous comments, we believe it is very important to evaluate the cost of starting and stopping such programs. The history of energy conservation in the Pacific NW is peppered with the stop and go of programs. While we have a rich legacy of success we can celebrate, it's our belief we would be more than a little chagrined to see what we have missed by not maintaining a steady, aggressive energy conservation effort. So it is intriguing to think about how including the avoided cost of stopping and starting a program as a benefit to an existing program will alter the perspective whether it is cost effective.

On the other hand, including the restart-up costs in evaluating the cost effectiveness of reintroducing such offerings gives us pause. At very least, it does not seem appropriate to levelize that component of program cost over the average measure life of the measures in the portfolio. What matters is not the measure life, but the program life. For example, suppose a utility restarts a program with a five year measure life and runs it for ten years, isn't the impact of those restart costs amortized over twice the savings as the same program fun for only five years? It would seem to encourage to bias their portfolio make up toward longer life measures, perhaps excluding some shorter life measures that still provide reasonable savings?

4. Market transformation programs/Northwest Energy Efficiency Alliance (NEEA).

No comment.

5. Apply the savings-to investment ratio test for low-income programs.

The Energy Project greatly appreciates the recognition by this Commission, Staff and other stakeholders that the provision of energy efficiency measures to low-income households is in the public interest. We recognize as well that the non-energy benefits that result from the provision of these programs are sometimes far greater than the energy savings that result. The condition of the housing stock combined with the standards to which the program strives requires greater oversight and investment, increasing the costs for the savings gained. In that respect, including the low-income program in the calculation of a portfolio UCT may punish the utility for "doing the right thing" and we would support exempting the program. At the same time, the utility should be able to count the savings they achieve through these programs, at very least toward their conservation targets, if not in the UCT analysis.

It remains necessary to have some guidance for program, investment however. It seems this is what is proposed by suggesting the use of the savings-to-investment ratio (SIR). The SIR is a benefit/cost analysis, but we don't think that it is the appropriate measure to look at program-wide performance. The SIR is used as a means to determine what the allowable mix of measures could be installed on an individual house for the DOE Weatherization Assistance Program. It relies on the use of an audit tool, usually a computer, to calculate the ratio based on cost inputs for specific measure configurations, resulting in estimated kWh, or therm savings. In that sense, it counts only the savings as benefits, but is likely to count additional investments as costs. That is, repairs or health and safety measures necessary for the installation of weatherization materials are included as costs, but the computer program does not have any means to quantify the value of the non-energy benefits.

Furthermore, while the tradition had been to evaluate each structure for its SIR, this is no longer a requirement. The pressure to effectively use the ARRA funds bought home the understanding that not every house needed the additional cost of performing a computer audit. At that time the Department of Commerce developed a DOE approved list of priority measures that could be installed without the need to run a computerized audit. As the utilities have generally adopted the DOE specifications, we would assume some number of utility funded homes do not have calculated SIRs. In that sense, we can't assume that, since every home has passed a specific SIR, the program would as well.

We are aware of two alternatives to deal with this concern in practice elsewhere in the country. In California, recognition that the goals and value of the low-income program is greater than energy efficiency alone has resulted in reducing the required TRC threshold to 0.25. On the other coast, in Massachusetts, a comprehensive inclusion of non-energy benefits is applied to the program analysis and raises the TRC well above the 1.0 threshold. (We have seen a similar approach applied in the case of the PacifiCorp low-income program.) While we believe either might suffice, each would bear a closer look as to how the calculation is performed.

Regardless whether one uses a SIR or a cost-effectiveness test, the most important issue to consider is what number should be used as the tipping point. For low-income related programs we believe the number 1.0 or greater is an artificial goal that does not address the realities of the program, its goals, challenges, and benefits. We suggest a collaborative effort of interested stakeholders to determine the appropriate level for the IOU's service area in WA.