Overview of DSM Cost Tests

June 25, 2015

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ROCKY MOUNTAIN POWER

Let's turn the answers on.

Background

- Parties developed demand side resource performance standards for post 1994 program cost recovery and submitted *Demand Side Resource Cost Recovery Collaborative Report, Appendix VII* on March 31, 1995
  - Served as standards and guidelines until 2009 (including the recommended economic tests for demand side resource program assessment)
- 2007 - Commission directive to re-visit performance standards
- 2009 - Collaborative report submitted to Commission and approved
  - Generally adopted the collaborative report recommendations
    - The current California Standard Practice Manual (SPM) should continue to be the source of basic definitions for the economic tests.
    - All five tests are useful and should be provided.
    - The Utility Cost test is recommended as the threshold test in determining program prudence.
    - Absent more appropriate economic tests, small-scale renewable resources may be evaluated on the same basis as energy efficiency and load management

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Five economic tests

- All from California Standard Practice Manual (SPM)
- All include a comparison of the benefits and costs
- Each test focuses on a different perspective
- Tests:
  - Utility Cost Test (UCT)
  - Participant Cost (PCT)
  - Ratepayer Impact Measure (RIM)
  - Total Resource Cost (TRC)
  - PacifiCorp Total Resource Cost (PTRC)

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Test	Benefits	Costs
PTRC	Benefits and costs to all in the utility service territory as a whole	
	• Energy related costs avoided by utility • Capacity related costs avoided by utility • Non-monetized benefits (modeled as 10% increase in benefits	• Program overhead costs • Measure costs (whether paid for customer or utility)
TRC	Benefits and costs from the perspective of all utility customers (participants and non-participants) in utility service territory	
	• Energy related costs avoided by utility • Capacity related costs avoided by utility	• Program overhead costs • Measure costs (whether paid for customer or utility)
UCT	Perspective of the utility implementing the program	
	• Energy related costs avoided by utility • Capacity related costs avoided by utility	• Program overhead costs • Incentive costs
RIM	Impact of efficiency measures on non-participating ratepayers overall	
	• Energy related costs avoided by utility • Capacity related costs avoided by utility	• Program overhead costs • Incentive costs • Lost revenue due to reduced energy bills
PCT	Benefits and costs from the perspective of the customer installing the measure	
	• Incentive payments • Bill savings	• Equipment costs • Installation costs

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APPENDIX

Utility Cost (UCT)

The UCT measures the net costs of a demand side management program based just on the cost incurred by the utility and excludes any net costs incurred by the participant.

The benefits for this test consist of avoided supply costs utilizing the net program savings impacts; i.e. savings net of the changes in energy use that would have occurred in the absence of the program.

The costs for the utility test are the administrative costs of the program and any incentive paid to participants.

The UCT directly captures the revenue requirement impact of a demand side resource because the UCT only includes the costs borne by the Utility.

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Total Resource Cost (TRC) & PacifiCorp Total Resource Cost (PTRC)

The TRC test measures the full net costs of a demand side program and is most often used to compare the costs of a demand-side resource with a supply side resource.

The costs included in the TRC test are the full costs borne by the utility including administrative costs of the program and the costs of the DSM measures, and the costs incurred by customers directly participating in the program.

The benefits for this test consist of avoided supply costs utilizing the net program savings impacts; i.e. savings net of the changes in energy use that would have occurred in the absence of the program.

The TRC test indicates whether a supply side or demand side resource is less costly regardless of who is paying for the resource.

The PTRC test is the same as the TRC except that includes a 10% adder for non-quantifiable benefits

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Participant Cost (PCT)

The PCT measures the net costs of a demand side management program based just on the cost incurred by the participant.

The benefits for this test consist of the reduction in the participant's bills. The costs for the participant test are the costs borne by the participants, i.e. the total measure costs less any incentives provided by the utility.

The PCT is used to determine whether the program design will be attractive to participants.

Ratepayer Impact Measure (RIM)

The RIM test measures the impact on average rates.

The benefits for this test consist of avoided supply costs utilizing the net program savings impacts; i.e. savings net of the changes in energy use that would have occurred in the absence of the program.

The costs for the RIM test are the administrative costs of the program, the costs of the DSM measures, and the revenue impact of the kWh saved.

While this test does not measure the cost effectiveness of a DSM program, it provides present information on the program impacts on non-participants.

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