

Commissioner Stan Wise comments at Sept 28 Southeast Energy Efficiency Meeting

DSM Economic tests

All of these tests are benefit/cost tests that measure the economics of DSM from different perspectives. The tests can either be calculated as a ratio of the benefits divided by the cost, where a result greater than or equal to one indicates passing the test; or the test can be calculated as benefits minus the costs, where a result greater than or equal to \$0 is passing the test.

These economic tests originated from the California Standard Practice Manual for evaluating DSM programs and the methodology of the computations is standardized throughout the utility industry.

All of the tests have strengths and weaknesses. The most appropriate way of evaluating DSM is to ensure that DSM programs pass all of the tests.

Rate Impact Measure test (RIM) – also known as “no losers test” or the “fairness and equity test”

Benefits: avoided supply cost

Costs: lost revenues, program costs

- Measures the economics of a DSM program from the perspective of customers who do not participate in the DSM program
- Passing the RIM test leads to programs that minimize electric rates
- Passing the Rim test eliminates DSM cross subsidies
- Ignores whether a DSM program is in the best interest of customers who participate
- Ignores whether a DSM program is good for society

When a DSM program fails the RIM test it means that customers who do not participate in a DSM program will be forced to subsidize customers who participate in the DSM program. Using an example of additional attic insulation as a DSM program, some reasons why customers may not participate in the DSM program include: 1) some low income customers can't afford to participate if they have to pay a portion of the cost of the attic insulation (even if the utility pays a rebate equal to 75% of the cost of the attic insulation the customer may not be able to afford the other 25%), 2) some customers may have paid the full cost of additional attic insulation prior to the inception of the DSM program so they can not take advantage of the DSM program yet are forced to pay higher rates so that those who have not taken such action can add attic insulation in the future at a fraction of the cost in which this customer added their own attic insulation), 3) a customer may realize that they will be moving within the next few years and that they will not get a payback on any out of pocket costs associated with adding attic insulation to the house they will soon be selling (the amount of attic insulation is not a primary consideration for most people shopping for homes and therefore they generally won't pay any extra to the seller for additional attic insulation), 4) the customer may simply choose to not take any action because of a busy life or prioritizing other activities ahead of calling the utility to register for the program and then taking a day of vacation to meet an attic insulation contractor at their home on the day of the installation). When a DSM program fails the RIM test, customers who cannot or choose not to participate in the DSM program subsidize other customers who do participate in DSM programs, regardless of the reason for not participating in the DSM program.

Participant Test (PT)

Measures the economics of a DSM program from the perspective of the customer participating in the DSM program

Benefits: Customer's utility bill savings and any other related cost savings such as reduced operation and maintenance costs

Costs: The customer's investment to install and maintain (if necessary) the DSM measure

- Ignores the impact on electric rates
- Ignores whether a DSM program is good for society

A utility should not promote a DSM program that is not in the economic best interest of a customer who participates in the program.

Program Administrators test (formerly called the Utility Cost test - UCT)

Same as RIM except ignores lost revenues of the utility and therefore the impact on rates to customers

Benefits: avoided supply cost

Costs: program costs

- Ignores rate impacts and cross subsidies measured by the RIM test
 - Leads to cross subsidies between participants and non-participants
- Ignores the participant test
- Measures change in total utility bills due to program but not the change in rates

Total Resource Cost test (TRC) – also known as the “economic efficiency test”

This test measures the overall economic efficiency of a DSM program from the perspective of society. Measures net costs of a DSM program based on the total costs of the program, including both participant and utility costs.

Benefits: avoided supply costs, any avoided participant cost aside from utility bills

Costs: program costs, participant's cost

- Ignores impact of DSM programs on electric rates by ignoring lost revenues
- Leads to cross subsidies between DSM program participants and non-participants
- Measure of the change in the average utility bill across all customers but does not consider cross subsidies nor how many customers are “winners” vs how many are “losers”

Societal Cost Test (SCT)

Total Resource Cost test but adds societal benefits (externalities, such as hypothesized change in medical bills) to the total benefits