

Docket GE14-0001

MidAmerican Energy Company's Response to the April 17, 2014, Request for Additional Information by Commissioner Nelson

The following responses supplement the information previously submitted in response to Staff Data Request 2-8, and as discussed at the April 15, 2014, South Dakota Public Utilities Commission meeting.

Question 1

In response to the questions at the Commission meeting, MidAmerican state that it used the "Utilities Cost Test" a/k/a Program Administrators Test to measure life cycle benefit/cost ratios of a given year's program. Explain fully why this test was used as the measure for making such a calculation rather than the TRC test, which was used as the benefit/cost measure in the filing? Which of the two aforementioned tests provides the more positive result? Is there value in using two or more tests to examine life cycle benefits of an annual expenditure? If so, why?

Response:

MidAmerican uses the Total Resource Cost (TRC) test for the purposes of determining the cost effectiveness of energy efficiency measures and programs in South Dakota. The TRC test evaluates the cost effectiveness of a program or measure by comparing the total cost of the program or measure (some of which is paid for by the customer and some of which is paid for by all ratepayers through the EECR factor) to the present value of all of the capacity and energy costs that are avoided by virtue of the program or measure being implemented. The benefit/cost ratio is calculated as the ratio of the present value of the avoided capacity and energy costs to the initial cost of the program or measure. If the benefit/cost ratio under the TRC test is greater than 1.0, the program or measure is determined to be cost effective.

The Utility Cost Test (UCT) is a different test that is narrower in scope than the TRC test. The UCT test measures the net present value of the change in utility revenue requirements over time and helps to answer the question of whether or not overall customer utility bills will go up or down over the life of the energy efficiency program or measure by virtue of that program or measure being implemented. The benefit/cost ratio under the UCT test is calculated as the ratio of the present value of the avoided capacity and energy costs to the specific costs of the program that ratepayers are funding (administrative costs plus paid incentives paid). If the benefit/cost ratio under the UCT test is greater than 1.0, the program or measure is deemed to reduce revenue requirements used to set rates for customers over the life of the program. In most cases, the UCT test has a higher benefit/cost ratio than the TRC test because the TRC test considers the entire cost of a program or measure whereas the UCT test only considers the cost of the program or measure that utility ratepayers are funding.

As previously stated, MidAmerican uses the TRC test to determine the cost-effectiveness of energy efficiency programs in South Dakota, and we regret any miscommunication at the April 15 Commission meeting that would have suggested otherwise. The UCT test was used specifically to answer the

question posed in Data Request 2-8 which asked for a calculation of rate savings, which is more related to an analysis of life-cycle revenue requirement reductions than to a general analysis of the cost-effectiveness of the portfolio. While MidAmerican believes that an examination of the costs and benefits of the program under the UCT test can be valuable in making sure that the utility and its ratepayers don't spend more money on a program or measure than that program or measure is worth to them, the TRC test is generally accepted as the best measure of overall cost-effectiveness.

Question 2

How can one appropriately measure life cycle benefit/cost ratios without the usage of present value methods to equate current expenditures with future benefits?

Response:

MidAmerican believes that one must use present value methods to equate current expenditures with future benefits in determining life cycle benefit/cost ratios. The TRC test does this, and all cost effectiveness data that MidAmerican has provided in this docket and previous dockets via the TRC test has taken the present value of future benefits into account.

The calculation of rate impacts asked for in Data Request 2-8 in this docket was not done on a present value basis and that was in error, although the impact on the average expected reduction in electric and gas rates is minimal. The revenue requirement reductions under the UCT test that is provided in response to Question 4 are stated on a net present value basis.

Question 3

Assuming a present value analysis of benefits and cost is performed, what is MidAmerican's preference for usage as the discount rate, and if that rate is not the overall cost of capital as most recently determined by this commission, explain why it is not.

Response:

MidAmerican believes that a weighted average cost of capital (WACC) is the most appropriate discount rate to use in determining the cost effectiveness of energy efficiency programs, as that is the discount rate used to evaluate the utility's investment decisions that would be made in the absence of the programs. The discount rate used in the development and analysis of the current South Dakota energy efficiency portfolio is 7.43%, which is the rate that was used in the development of the Iowa energy efficiency assessment in 2011. This is not the same as the overall cost of capital most recently determined by the Commission for MidAmerican, 8.378%, which was established in 2004. The 7.43% discount rate was considered to be more representative of MidAmerican's cost of capital at the time of the development of its energy efficiency plan.

Question 4

Provide the life cycle benefit/costs using both the TRC test and the Utility Cost test in a format similar to Attachment 2-8, and appropriately discounted at both the overall rate of return and a discount rate preferred by MidAmerican if the preferred number is not the overall rate of return last granted by this commission. List all key assumptions used in development of these numbers, including the life cycle assumed and used for each measure, so that they may be replicated by SDPUC staff.

Response

Information on life cycle benefits and costs using the TRC and the UCT test for both the 7.43% discount rate and the 8.378% discount rate are provided in Attachment 4-1. Based on this information, the levelized reduction in electric rates over the life of the program asked for in Data Request 2-8 is \$0.00014/kWh under either discount rate, and the levelized reduction in gas rates over the life of the program is \$.00169/therm using a 7.43% discount rate and \$.00164/therm using an 8.378% discount rate. A full list of assumptions for program and measure costs by program is provided in Confidential Attachment 4-2.

Question 5

MidAmerican may also supplement the data in Question 4, above, by including any other test, if another test is preferred by MidAmerican. Provide support for this preference to the tests in 4 above. List all key assumptions used in development of these numbers so that they may be replicated by SDPUC staff.

Response

MidAmerican is not proposing any other cost/benefit tests as a supplemental response to Question 4.