

From: Cunningham, Hayley T. (Texas Gas Service)
Sent: Wednesday, October 10, 2018 5:23 PM
To: Cyrus Reed (Resource Management Commission Vice Chair)
Cc: Goodson-Collins, Toye; Graham, Larry
Subject: RE: questions on TGS budget

Cyrus-

On a high level, the Energy Efficiency Program, per the governing tariff (Rate Schedule CAC), is designed to “encourage the most efficient use of energy, reduce net energy consumption, and lower energy utility bills” with an “overall portfolio of program offerings” that is “impactful and cost-effective”. All of the measures included in the proposed budget improve the efficiency of natural gas use in the home or commercial establishment and the overall portfolio is highly cost-effective with a TRC value of 1.86 with NREL inputs or 1.59 with the original inputs. This understanding was confirmed by Austin city council at the February 1st public hearing earlier this year.

While the benefit/cost evaluation of individual programs is certainly considered, and was the driver behind the elimination of 12 programs last year, TGS aims to offer a comprehensive portfolio of incentives that provides opportunities for participation from the wide variety of customers that pay into the fund and addresses hard-to-reach customer participation.

To answer your questions specifically:

1. **Why is TGS proposing to include a rebate for commercial water heating program -- 82% efficiency system, even though it fails the total resource cost test, societal cost test, participant test, and rate impact measure test? Why include a measure for which you only expect to have one incentive per year?**

TGS is proposing to include the rebate for commercial water heating systems to incentivize efficient water heating, typically boiler systems, in large commercial facilities. Since these are typically large, expensive projects, participation is infrequent. It is important to keep in mind that any cost-effectiveness analysis relies entirely on the assumptions used. In this case, the analysis assumes an incremental cost of \$50,000, at 82% efficiency, with annual savings of 782 Ccf. The actual equipment cost and savings will vary greatly depending on the customer type and their usage profile. Due to the variability, this is one of the only rebates set as a percentage of the equipment cost rather than a fixed amount. As an example, a past recipient of this rebate was a downtown hotel which installed three 87% efficiency boilers at a total project cost of \$153K. For projects of this scale, an analysis specific to their usage profile and projected savings was conducted during the customer’s decision making process.

2. **Residential -- TGS is proposing to include incentives for three categories of measures that do not appear cost-effective:**
 - a. **Tankless Water Heater Residential Rebate (Participant Test 1.17, Total resource cost test 0.66 and societal cost test 0.71), Tankless Water Heater Residential Rebate (TRC 0.66 and SCT 0.71); and**
 - b. **High Efficiency Furnace Residential Rebate (1.09 PT, 0.53 TRC and 0.56 SCT) and High Efficiency Furnace for New Construction (0.66 TRC and 0.71 BF); and**
 - c. **Furnace Tune-up for Residential Rebate (.66 PT, 0.42 TRC and 0.34 SCT).**

Please explain why TGS is proposing to include these residential measures, even though there are more cost-effective programs available that would also serve residential customers.

The values you cited below did not include the participant test, the test which determines whether the program is cost effective for the recipient of the rebate, or the values from the alternate analysis provided with incremental costs sourced from the Department of Energy's National Renewable Energy Laboratory ("NREL"). To reiterate, the cost-effectiveness of each measure is largely dependent on the assumed incremental costs which varies greatly even between reputable sources. For comparison, please see the values from the analysis using NREL assumptions below:

- a. Tankless Water Heater Residential Rebate (Participant Test 1.86, Total resource cost test 1.04, and societal cost test 1.12), Tankless Water Heater Residential New Construction Rebate (Participant Test 1.33, TRC 1.04 and SCT 1.12); and
- b. High Efficiency Furnace Residential Rebate (4.31 PT, 2.22 TRC and 2.39 SCT) and High Efficiency Furnace for New Construction (1.09 PT, 2.22TRC and 2.39 SCT); and
- c. Furnace Tune-up for Residential Rebate (.66 PT, 0.42 TRC and 0.34 SCT).

From this analysis, both the tankless water heater and high-efficiency furnace pass each of the three tests and pass the participant test in the original analysis. TGS is proposing to include the furnace tune-up rebate because, while not deemed cost-effective, it encourages preventative maintenance that can prolong the life of a furnace. Further, a tune-up can prevent the costs associated with an early replacement, can identify safety issues, and is a low-cost rebate (\$40) that 608 customers have claimed year-to-date, second only to the natural gas dryer. Participation in highly cost-effective residential programs (e.g. water-savings kits, weatherization) does not suffer by the inclusion of tankless water heater, high-efficiency furnace, or furnace tune-up rebates. All qualifying applications for rebates from the Home Performance with Energy Star ("HPwES") Program and water-kit requests have been approved and the rebates or kits issued. Based on feedback from HPwES contractors, TGS is proposing to increase the rebate level for attic insulation and new ducts and offer an extra \$100 winter incentive to ensure HPwES participation remains high as the prices of the measures increase.

Additionally, as discussed in last year's October RMC meeting, this is a customer funded program and it is important to include programs with a high degree of customer demand and participation. In 2017, over thirty percent of residential rebates issued were for tankless water heaters, high-efficiency furnaces, or furnace tune-ups. Due to the high participation, a significant amount of the natural gas savings achieved through the program comes from the incentives in question.

3. If TGS were to eliminate residential rebates for high-efficiency furnaces and tankless water heaters, how would you adjust the budget?

If TGS were to eliminate residential rebates for high-efficiency furnaces and tankless water heaters (retrofit and new construction), the budget would be reduced by approximately \$1 million or 28%. As the budget stands, closely resembling the approved 2018 budget, demand for all programs is being met. There is not demonstrated excess demand for programs that would benefit from additional budget dollars in lieu of the furnace and tankless water heater rebates. Eliminating these programs may also make the entire program infeasible due to the 15% cap for administrative expenses. The staff necessary to operate the program could not withstand a 28% reduction in administrative expenses.

This would also mean eliminating all programs for the two most common natural gas appliances, leaving only residential programs for natural gas dryers, furnace tune-ups, water-conservation kits and Home Performance with Energy Star weatherization, available only to TGS' mutual customers with Austin Energy. Based on the results of a 2018 survey completed by 3,554 customers eligible for the program, these rebates are highly influential in making purchase decisions for high-efficiency appliances and the most common reason customers participate is having to replace an appliance. Survey respondents included both past participants and non-participants and the average satisfaction for the rebate program as is, from not satisfied to very satisfied on a 5-point scale, was 4.28.

4. While this is a three-year budget proposal will TGS come back to the City and RMC next summer or fall with an update and any adjustments to the budget for 2020?

If the revised tariff for a three-year budget is approved, TGS would not update or make adjustments until the end of the three-year period, or summer/fall 2021. The customer charge implemented to support the budget would also not be modified until 2021. This is consistent with the operation of both the Company's Rio Grande Valley Program and Oklahoma Natural Gas Program.

I appreciate you taking the time to review and please let me know if you have any follow-up questions.

Hayley Cunningham

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