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EXECUTIVE SUMMARY

In a year where almost everything changed, the one thing that did not change was customer interest and participation in the Intermountain Gas Energy Efficiency Program (Program). While everyone spent more time at home than ever before, customers continued to seek ways to save energy and save money on home energy use. In 2020, overall participation in the Program continued to grow. The Whole Home and Furnace incentives led the way for the third year in a row, while other incentives were slow to gain momentum or uptake. While Intermountain Gas Company (Intermountain, Company) continually monitors program performance, based on cost-effectiveness, rebate redemption, customer feedback and guidance from the Energy Efficiency Stakeholder Committee (EESC), the Program followed industry best practice and sought evaluation by an external party. To assess the performance of the Program, the Company enlisted ADM Associates, Inc. (ADM) to conduct an independent review, formally called Evaluation, Measurement and Verification (EM&V). The EM&V study provided constructive information regarding therm saving verification, as well as practical recommendations to improve well-established program delivery procedures. The EM&V study served as the basis for significant revisions to the Program offering.

To continue to deliver safe, clean, reliable natural gas in the midst of the world-wide pandemic, the Company adopted new safety and health protocols to do our part to keep employees, customers, and our communities, safe and healthy. The Energy Services Representatives (ESR) continued to carry out business development and energy efficiency promotion and education responsibilities while implementing social distancing, wearing face masks, and employing limited contact protocols while serving customers, builders, developers, and contractors in the field. The in-office team was no longer in the office, but instead transitioned to work from home. In early 2020, many of the traditional outreach and education events, like trade shows and conferences, were initially postponed and then ultimately canceled. When it was possible, the Energy Efficiency (EE) team participated in limited outreach events following strict safety protocols. With stay at home orders and limited public contact, the EE team switched tactics to engage with customers and contractors via social media and email.

In 2020, Intermountain Gas paid out 4,537 rebates to customers, a 36% increase over the previous year. The Furnace rebate was the most redeemed rebate, at 2.744 rebates in 2020, which is also the most of any Program year. While many sectors of the economy slowed down, home building in Idaho soared, as did uptake of the Whole Home rebate for energy efficient new construction. Second to the Furnace rebate, the Whole Home rebate continued to be one of the most redeemed rebates with 1.536 ENERGY STAR Certified, HERS rated (Home Energy Rating System) homes built in 2020. The Tankless Water Heater incentive also continued to grow with a 44% increase over 2019. The majority of tankless







water heaters were installed in new construction. The 70% Fireplace, Combination Radiant Heat System, and Water Heater rebates all decreased from 2019 levels.

The EM&V study not only identified areas where the Program excelled and ways to improve current and future procedures, but also evaluated the therm savings of the two most redeemed incentives. ADM applied two methodologies to evaluate savings in the impact study, a simulation-based approach and a billing analysis approach. Based on the simulation-based analysis, the Program was found to be cost-effective (i.e. a ratio exceeding 1.0) with a Utility Cost Test (UCT) benefit to cost ratio of 1.5, but not cost-effective under the billing analysis-based evaluation with a UCT of 0.5. The cost-effectiveness of individual measures also varied from very cost-effective to not cost-effective depending on the analysis method used. Due to the disparity in the results of these two approaches, the Company significantly revised the Program offering. The revisions focused on implementing requirements that directly impact therm savings and implementing EM&V recommendations that will help the Company avoid potential under reporting or overstating therm savings.

The EE Program is funded by the Energy Efficiency Charge (EEC) rider, which is a monthly per therm charge paid by residential customers. The EEC is used to acquire cost-effective therm savings. Order No. 34454, which took effect on October 1, 2019, implemented an ECC

of \$0.02093 per therm. The EEC is based on a 2020 program budget of \$3,944,642. The Program started 2020 under-collected by \$442,385, and ended the year overcollected with a balance of \$1,318,197. The Company had higher than expected collected revenue likely due to customers spending more time at home in 2020, which resulted in higher consumption. Program expenses were lower than expected due to the cancellations of many activities due to COVID-19. However, Intermountain had the highest annual total rebate payout in Program history in 2020, with \$2,848,550 paid directly to customers in the form of incentive rebates.

The Company continued to promote the Program through various outreach methods to the traditional audiences: customers, contractors, builders and the community at large. Most in-person promotional activities traditionally used by the Company were canceled due to the pandemic. The cancellations provided the Program opportunities to re-think energy efficiency education and outreach approaches.

The EESC continued to play an instrumental role in the growth and success of the Energy Efficiency Program in 2020. Meeting three separate times throughout the Fall, the EESC reviewed the results of the EM&V and provided thoughtful feedback and guidance in the application of the results to revise the residential offering. From the EESC, the Company assembled a subcommittee dedicated to reviewing and updating the



Company's avoided costs and calculations, per Order No. 34536. The subcommittee met three times in early 2020. The Subcommittee agreed on a methodology for calculating avoided costs related to commodity and transportation costs and continues to work on quantifying avoided distribution costs. Many members of the EESC also participated on the newly formed EESC-Commercial Subcomittee (EESC-C). Commercial industry experts were recruited to join the EESC-C to consult and advise on the development of the Company's first ever commercial energy efficiency rebate program. All EESC meetings were held virtually, which allowed members to participate and engage via a short trip to their computer rather than a 4-hour drive across the state, an unexpected benefit to working from home.

Intermountain is committed to providing energy efficient choices today as well as a clean, energy efficient future. A key component of that energy efficient future is bringing natural gas heat pump technologies to market. Natural gas heat pump technology has the capability to provide customers with new energy saving opportunities with efficiencies exceeding 100%, as well as lower operating costs and costs of ownership. The Company continued to participate in the North American Gas Heat Pump Collaborative (Collaborative) after joining as a charter member in 2019. The Collaborative is a working group comprised of North American natural gas utilities dedicated to accelerating the adoption of natural gas heat pump technologies. In concert with the work of the Collaborative, the Company continues to be a member of the long-established Emerging Technology Program (ETP), facilitated by the Gas Technology Institute (GTI). ETP is a member driven committee working to "accelerate the market introduction and acceptance of new emerging technologies to feed utility energy efficiency programs."

The Program continues to evolve and grow along with the energy efficiency industry. The Company is excited for the 2021 update of the residential offering which retired under-performing incentives, added new rebates, and made important adjustments to existing rebates. A redesigned new construction rebate will focus on capturing natural gas therm savings while driving energy efficient design in residential home building. Opportunities to save money and energy will be extended to commercial customers with the launch of the first ever commercial energy efficiency program at Intermountain Gas.

This Energy Efficiency 2020 report provides a review of the Company's energy efficiency program finances, costeffectiveness, and performance for the entire Program and for each individual incentive. It also outlines the results of the EM&V study and the actions taken by the Company based on the findings and recommendations of the study. A review of Program outreach and educational activities is included, as well as an update on the Company's involvement in a collaborative effort to accelerate market introduction of gas heat pump technologies, and the future plans for the Program.



INTRODUCTION

Intermountain Gas Company, a subsidiary of MDU Resources Group, is a natural gas distribution company serving over 387,000 residential, commercial, and industrial customers in 76 communities across Southern Idaho since 1955.

In addition to keeping customer's homes warm and comfortable, the Energy Efficiency Program strives to provide customers opportunities to save money and energy. Individuals benefit from energy efficiency by reducing energy use and ultimately realizing long-term savings through lower monthly bills. All customers benefit from the efficient use of natural gas by maximizing today's assets and delaying the need for expensive system upgrades.

The Energy Efficiency Program was approved by the Idaho Public Utilities Commission (Commission) and went into effect on October 1, 2017. All customers receiving natural gas through the Company's residential rate schedule were eligible to participate in the program through 2020. The Program offers rebates on natural gas equipment meeting specific high-efficiency requirements, and can be applied to replacement equipment, conversion from other fuel sources and new construction. The Program also offers rebates for ENERGY STAR Certified residential new construction with a HERS score of 75 or less.

The EE Program is funded by the Energy Efficiency Charge rider, a monthly per therm charge to residential customers. In 2020, the Company did not seek a change to the \$0.02093 EEC approved by the Idaho Public Utilities Commission in Order No. 34454. The Program started 2020 under-collected by \$442,385, and ended the year over-collected with a balance of \$1,318,197. The Company had higher than expected collected revenue, likely due to customers spending more time at home in 2020, which resulted in higher consumption. Program expenses were also down due to the cancellations

of many activities due to the pandemic. At the same time, however, the Company had the highest annual total rebate payout in Program history in 2020, with \$2,848,550 paid directly to customers in the form of incentive rebates. EEC balance fluctuations from over to under-collected, are largely due to the seasonal nature of natural gas consumption, with higher consumption in the winter leading to an over collection, and a subsequent correction during the summer months of lower consumption. Although the Program ended the year with an over-collected balance, the Company believes the balance will turn around as the economy returns to normal and customers begin taking advantage of the new program offerings. Consequently, Intermountain is not planning to file a revision to the EEC in 2021. However, the Company will continue to closely monitor fluctuations in its rider balance to avoid excessive over or under collection balances and make EEC revisions as necessary.

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program

2020 Rider Balance

Revenue	\$ 5,416,740
Program Expenses	
Residential Rebates	\$ 2,848,550
Labor	642,387
Program Delivery	24,653
Special Studies	129,568
Market Transformation	 11,000
Total Program Expenses	\$ 3,656,158
2020 Rider Deferral Over/(Under) Collection	\$ 1,760,582
Prior Year Rider Balance	(442 385)
over/londer/concetion	 (-++2,505)
Rider Account Balance	
Over/(Under) Collection	\$ 1,318,197

Table 1. 2020 Rider Balance.

COST-EFFECTIVENESS TESTING METHODOLOGY

Intermountain's objective is for all rebates to have benefit/cost ratios greater than one when measured by the UCT. The UCT measures cost-effectiveness from the utility company's perspective and takes into consideration avoided supply costs, program administration costs and incentives paid by the utility. Rebates undergo cost tests at several stages: preliminary design, implementation, annual review and during EM&V. For a different perspective, the cost-effectiveness of rebates is also evaluated based on the customer's perspective using avoided supply costs, program administration costs and net participant costs, or the Total Resource Cost Test (TRC). The TRC is not the primary cost test used for decisions regarding the inclusion or exclusion of rebate offerings. In calculating the UCT and TRC, Intermountain relies on the calculations outlined in the California Standard Practice Manual and the National Action Plan for Energy Efficiency's (NAPEE) Understanding Cost-effectiveness of Energy Efficiency Programs: Best Practices, Technical Methods, and Emerging Issues for Policy-Makers.

In this report, 2020 performance, cost-effectiveness, lessons learned, EM&V recommendations and actions taken to address recommendations will be covered for each rebate. Program outreach and promotional activities by target audience, EM&V recommendations and actions taken to address the recommendations are also included.



EM&V IMPACT EVALUATION

The first ever Conservation Potential Assessment (CPA) marked a program milestone in 2019, quickly followed by another program milestone in 2020: Evaluation, Measurement and Verification. *Figure 1* from the SEE Action Energy Efficiency Program Impact Evaluation Guide, December 2012 (SEE Action Guide) illustrates the critical role of EM&V in energy efficiency program planning and improvement. As the SEE Action Guide notes, EM&V has "three primary objectives: document the benefits of a program, identify ways to improve current and future programs, and support energy demand forecasting and resource planning by understanding the historical and future resource contributions of energy efficiency as compared to other energy sources." Evaluations are often a means for applying retroactive energy savings to a program to demonstrate prudent investment of customer funds, but beyond the retroactive view, evaluation plays an important role in improving programs. Evaluation, according to the SEE Action Guide, therefore, "both fosters more effective programs and justifies increased levels of investment in energy efficiency as a long-term, reliable energy source."

In January of 2020, the Company sent out a request for proposal (RFP) to 29 organizations and posted the RFP on the Association of Energy Services Professional's website. A total of 13 firms replied to the RFP with intent to submit a proposal, and 10 firms submitted a proposal. The Company conducted interviews with 4 finalists before ADM was selected to conduct the EM&V.

The evaluation consisted of two major components: process evaluation and impact evaluation. The process evaluation examined program operations and results for the program years 2017-2019. ADM stated this portion of the evaluation was designed to "identify potential program improvements that may prospectively increase program efficiency or effectiveness in terms of customer participation and satisfaction levels."

The impact evaluation was conducted on the two most redeemed rebates: the Whole Home rebate and the Furnace rebate. Other incentives in the program offering did not warrant impact evaluation since the Company already planned to change these offerings due to low participation.



Figure 1. SEE Action Energy Efficiency Program Impact Evaluation Guide, EM&V.

ADM applied two evaluation approaches to each rebate, a billing analysis and a simulation-based analysis. Both methods comply with International Performance Measurement and Verification Protocol maintained by the Efficiency Valuation Organization. In both cases, ADM recommended the Company use the therm savings found in the simulation based analysis, as "billing analyses include any changes in household behavior, equipment, or occupancy, and therefore may include factors other than the impact of improved equipment efficiency." The billing analysis and simulation-based analysis yielded disparate results in the case of both the Whole Home and Furnace rebates. The following chart illustrates the impact on costeffectiveness based on the therm saving analysis used.

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program 2020 UCT Results

		Simula		Billing Analysis										
Rebate	Therm Savings	Annual Therm Savings	U	CT Benefits		UCT Costs	UCT Ratio	Therm Savings	Annual Therm Savings	U	ICT Benefits		JCT Costs	UCT Ratio
Whole Home	274	420,864	\$	2,998,117	\$	2,265,522	1.3	58	88,381	\$	629,605	\$	2,119,266	0.3
Combi Radiant Heat System	113	1,017	\$	6,523	\$	10,020	0.7	113	1,017	\$	6,523	\$	12,177	0.5
Furnace	134	367,696	\$	2,286,290	\$	1,329,370	1.7	56	153,911	\$	957,000	\$	1,441,153	0.7
70% Fireplace	10	130	\$	808	\$	1,430	0.6	10	130	\$	808	\$	1,706	0.5
80% Fireplace	76	-	\$	-	\$	-	-	76	-	\$	-	\$	-	-
Water Heater	38	228	\$	1,050	\$	529	2.0	38	228	\$	1,050	\$	1,012	1.0
Tankless Water Heater	65	14,885	\$	106,037	\$	49,287	2.2	65	14,885	\$	106,037	\$	80,844	1.3
Program Total			\$	5,398,825	\$	3,656,158	1.5			\$	1,701,023	\$	3,656,158	0.5

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program

2020	TRC	Results	

	Simulation Analysis									Billing Analysis				
Rebate	Therm Savings	Annual Therm Savings	Т	RC Benefits		TRC Costs	TRC Ratio	Therm Savings	Annual Therm Savings	-	TRC Benefits		TRC Costs	TRC Ratio
Whole Home	274	420,864	\$	2,998,117	\$	3,674,034	0.8	58	88,381	\$	629,605	\$	3,527,778	0.2
Combi Radiant Heat System	113	1,017	\$	6,523	\$	32,718	0.2	113	1,017	\$	6,523	\$	34,875	0.2
Furnace	134	367,696	\$	2,286,290	\$	3,955,378	0.6	56	153,911	\$	957,000	\$	4,067,161	0.2
70% Fireplace	10	130	\$	808	\$	1,521	0.5	10	130	\$	808	\$	1,797	0.4
80% Fireplace	76	-	\$	-	\$	-	-	76	-	\$	-	\$	-	-
Water Heater	38	228	\$	1,050	\$	2,569	0.4	38	228	\$	1,050	\$	3,052	0.3
Tankless Water Heater	65	14,885	\$	106,037	\$	427,137	0.2	65	14,885	\$	106,037	\$	458,694	0.2
Program Total			\$	5,398,825	\$	8,093,357	0.7			\$	1,701,023	\$	8,093,357	0.2
											-			

Table 2. 2020 UCT Results.

For both rebates, the simulation-based analysis produced post-analysis therm savings estimates that appeared to be overstated, exceeding even the CPA therm savings estimate for the measure. On the other hand, the post-analysis therm savings estimate from the billing analysis appeared to understate savings, because the billing analysis did not isolate for changes in household behavior, equipment, or occupancy, and included factors other than the impact of improved equipment efficiency, resulting in post-analysis therm savings far less than expected. The results of the study clearly indicated changes were needed to both the Whole Home and Furnace rebates to ensure cost-effectiveness in the future.

On September 16, 2020, ADM presented the results of the EM&V to the EESC. A follow up meeting was held October 27, 2020 to discuss the proposed actions to address EM&V recommendations. Using the EM&V results as a starting point, the Company and the EESC carefully considered changes to both rebates. Significant program revisions focused on implementing requirements that directly impact therm savings and implementing EM&V recommendations that will help the Company avoid potential under reporting or overstating of therm savings These changes took effect April 1, 2021.

ENERGY EFFICIENCY REBATES

For each rebate, Intermountain has provided an analysis of the 2020 performance, cost-effectiveness, lessons learned, EM&V recommendations and actions taken to address the recommendations.

To fully weigh the implications of each method used in the EM&V, the Company performed cost-effectiveness testing using the post-analysis savings of both the simulation-based analysis and the billing analysis. Two UCT ratios, UCT Simulation and UCT Billing, are provided for the portfolio and for each incentive, as well as TRC Simulation and TRC Billing. It is important to note that only the Whole home rebate and the Furnace Rebate were subject to the impact evaluation. However, cost-effectiveness tests for the billing analysis and the simulation analysis scenarios are provided for each rebate, including those that were not part of the EM&V. The program administration costs are allocated to individual rebates according to the percent of therm savings the rebate contributes to total 2020 therm savings. Because the Furnace and Whole Home are the two most redeemed rebates, the differences in therm savings for these two rebates resulting from the EM&V, impacts the allocation of program administration costs. The program administration costs allocation impacts all rebates included in the program. Therefore, cost-effectiveness for both the billing analysis and simulation analysis is provided for each rebate. Explanation and justification for revisions of each rebate based on the EM&V results and recommendations are also provided.

ENERGY EFFICIENCY PORTFOLIO

The Program, as an entire portfolio, was found to be cost-effective based on the UCT Simulation with a benefit to cost ratio of 1.5. Using the billing analysis, the Program was not cost-effective with a UCT Billing ratio of 0.5. Similarly, individual incentives were often cost-effective under the UCT Simulation scenario, and not cost-effective under the UCT Billing scenario. The water heating incentives were unlike all others in that they were cost-effective under both the UCT Simulation and UCT Billing scenarios. The TRC Simulation and TRC Billing ratios for the portfolio were 0.7 and 0.2 respectively.

FURNACE INCENTIVES

The Furnace incentive provides customers a \$350 rebate for the installation of a high-efficient natural gas furnace with a minimum rating of 95% AFUE. The Company issued 2,744 rebates during 2020, which is a 33% increase over the previous program year. Furnace retrofits continued to make up the majority of the rebates issued, while rebates for new construction accounted for 39% of furnace rebates. This reflects an increase in builder participation as new construction accounted for only 17% of furnace rebates the previous year.

Under the UCT Simulation, the Furnace incentive was cost-effective, with a ratio of 1.7. Under the UCT Billing Analysis, the incentive was not cost-effective, with a ratio of 0.7. The TRC Simulation and Billing Analysis ratios were 0.6 and 0.2 respectively.

LESSONS AND REVISIONS - FURNACE

The Furnace incentive is the only rebate offering that did not change in the 2021 Program revision. Instead, the EM&V study study recommended the Company require additional information on the Furnace rebate application. The EM&V study found 72% of customers surveyed indicated that their pre-existing furnace was functional at the time of replacement. Collecting additional information on the application will provide a more accurate savings picture on future furnace rebates. The additional data being collected includes: the BTU input of the furnace being replaced, the efficiency of the furnace being replaced, and the reason for replacement such as replace-on-burnout, early retirement or new construction. For example, therm saving estimates used for planning and forecasting compare upgrading a furnace from standard equipment, or an 80% AFUE furnace to a high-efficiency option of 95% AFUE. If customers are instead

replacing a 90% AFUE furnace with a 95% AFUE furnace, there are fewer therm savings to capture. Information of this nature will help provide a more accurate savings picture and better explain differences in estimated therm savings versus verified therm savings. The EM&V study also identified HVAC sizing as an area for contractor training as oversizing, a common practice in Climate Zone 5, negatively affects Program savings. The EESC suggested collecting the size of the equipment being replaced.

The Company implemented collection of the additional information on the rebate application, as recommended by EM&V, to provide a more accurate savings estimate and to refine future EM&V analysis. As of April 1, 2021, the following information is required on the rebate application: efficiency of the equipment that was replaced, the reason for the replacement, and the size of the equipment that was replaced. While the previous application requested the efficiency of the equipment being replaced, few responded. The updated application now specifies all fields are required for an application to be considered complete. Fields were added to request the reason for replacement and the size of the equipment that was replaced.

COMBI RADIANT HEAT SYSTEM INCENTIVES

The \$1,000 Combi Radiant Heat System (Combi) incentive is a rebate for the installation of a high-efficient condensing tankless combination system for space and water heat with a minimum efficiency rating of 90%. The Company issued 9 rebates during 2020; an 18% decrease, or two fewer rebates, compared to the prior program year.

Under the UCT Simulation, the Combi incentive was not cost-effective, with a ratio of 0.7. Under the UCT Billing Analysis, the incentive was not cost-effective, with a ratio of 0.5. The TRC Simulation and Billing Analysis ratios were both 0.2.

LESSONS AND REVISIONS – RADIANT COMBO INCENTIVES

This incentive has continued to have low participation and has been one of the more misunderstood offerings, both from an equipment standpoint and application standpoint. Customers installed two tankless appliances, negating the requirement of one appliance serving both space and water heat, or instead installed a boiler, negating the tankless requirement. To better assist customers and contractors in understanding rebate requirements while the Company prepared for a Program revision, the Company implemented a pre-qualification step for the incentive. This step was successful in helping customers and contractors navigate the requirements of the rebate prior to installation.

Effective April 1, 2021 the incentive was updated to instead require a combination boiler. The combination boiler is a single unit designed to provide both space and water heat. The updated rebate is an \$800 incentive with a minimum required efficiency of 95% AFUE.

FIREPLACE INCENTIVES

The Fireplace incentive provides customers a \$100 rebate for the installation of a high-efficient fireplace insert, with a minimum efficiency of 70% FE. The Company issued 13 rebates during 2020, a 7% decrease, or one fewer rebate, compared to the prior program year.

The Fireplace incentive was not cost-effective under the UCT Simulation or UCT Billing with cost-effectiveness ratios of 0.6 and 0.5. The Fireplace incentive was also not cost-effective under the TRC Simulation and Billing Analysis with ratios of 0.5, and 0.4 respectively.

The lack of availability of the 80% AFUE fireplace and complications of retrofitting this equipment proved to be a significant barrier to adoption. In accordance with Order No. 34536, the 80% AFUE fireplace was retired March 1, 2020.

LESSONS LEARNED – FIREPLACE INCENTIVES

The 70% FE Fireplace rebate had very low participation over the life of the offering, with 13 and 14 units installed in 2018 and 2019, respectively. While some customers may use a fireplace insert as a substitute heat source, fireplace inserts are designed to be a decorative feature and are not normally rated for energy efficiency. If a unit is rated, there is not a standard efficiency rating currently applied to all fireplace inserts. Based on the findings of the CPA, estimated annual therm savings were reduced from 56 therms to 10 therms. To be cost-effective, only a minimal incentive could be offered, making this an ineffective offering. The rebate was retired effective April 1, 2021.

WATER HEATER INCENTIVES

The Water Heater incentive provides customers a \$50 rebate for the installation of a high-efficient storage water heater with a minimum efficiency of 0.67 EF. Intermountain issued 6 rebates during 2020; a 25% decrease, or two fewer rebates, than the prior Program year.

Under the UCT Simulation, the Water Heater incentive was cost-effective, with a ratio of 2.0. Under the UCT Billing Analysis, the incentive was cost-effective, with a ratio of 1.0. The incentive was not cost-effective based on the TRC Simulation and Billing Analysis with ratios of 0.4 and 0.3 respectively.

LESSONS AND REVISIONS – WATER HEATER INCENTIVES

The 2019 CPA estimate of annual therm savings for storage water heaters was higher than original estimates when the Program was developed. Annual therm savings estimates increased from 22 therms to 38 therms, while the estimated useful life (EUL) decreased from 16 years to 13 years. The Company increased the 0.68 UEF, previously 0.67 EF, water heater rebate from \$50 to \$115 and anticipates that this increase will encourage more participation from the 2019 level of 8 rebates.

The Department of Energy updated the standard for measuring efficiency in water heaters after the Company began offering incentives. The efficiency rating was updated on April 1, 2021 from Energy Factor (EF) to Uniform Energy Factor (UEF) on all water heating incentives to be consistent with the current standard in place. The new UEF rating subjected appliances to new testing procedures that resulted in consistent standards for measuring energy efficiency performance, a better reflection of real-world results that impact energy efficiency ratings, and an apples-to-apples comparison of water heaters that simplified the water heater selection process.

TANKLESS WATER HEATER INCENTIVES

The Tankless Water Heater incentive provides customers a \$150 rebate for the installation of a high-efficient condensing tankless water heater, with a minimum efficiency of 0.91 EF. The Company issued 229 rebates during 2020, a 44% increase over the prior program year.

Under the UCT Simulation, the Tankless Water Heater incentive was cost-effective, with a ratio of 2.2. Under the UCT Billing Analysis, the incentive was cost-effective, with a ratio of 1.3. The incentive was not cost-effective with a TRC ratio of 0.2 under both the Simulation and Billing Analysis respectively.

LESSONS AND REVISIONS – TANKLESS WATER HEATER INCENTIVES

The Company increased the Tankless Water Heater incentive, now called Tankless Water Heater Tier I, from \$150 to \$325. This was based on an increase in the estimated annual therm savings from 58 to 65 therms and an increased EUL, from 18 years to 25 years, identified in the CPA. The efficiency rating was updated to the new standard rating of UEF, maintaining an efficiency rating of 0.91.

The EM&V study recommended the Company explore providing customers with another high-efficient water heating option at a slightly lower incremental cost than that of a 0.91 UEF tankless water heater. The Company implemented this recommendation and added a new offering, Tankless Water Heater Tier II. This tankless water heater incentive provides a rebate of \$300 and requires a minimum efficiency of 0.87 UEF.

WHOLE HOME INCENTIVES

The Whole Home incentive provides customers, primarily residential home builders, a \$1,200 rebate for new construction homes that are ENERGY STAR Certified and achieve a HERS score of 75 or less. The Company issued 1,536 rebates in 2020, a 42% increase over the prior program year.

Under the UCT Simulation, the Whole Home incentive was cost-effective, with a ratio of 1.3. The incentive was not cost-effective under the UCT Billing Analysis with a ratio of 0.3. The Whole Home incentive was not cost-effective under the TRC Simulation or Billing Analysis with ratios of 0.8 and 0.2 respectively.

LESSONS LEARNED – WHOLE HOME INCENTIVES

The Whole Home incentive was the most revised rebate offering as of the April 1, 2021 Program update. Restructuring of the rebate was based on EM&V recommendations to increase efficiency requirements to keep up with code improvements and to attempt to specifically isolate therm saving features in new construction. The Company also considered the following in restructuring the rebate: the therm saving opportunities identified in the 2019 Idaho Residential Energy Code Field Study, the energy code requirements that became effective January 2021, and feedback from the EESC.

Additionally, the Company commissioned a follow-up study with ADM to identify potential therm savings based on a variety of requirements. One of the more significant changes to the rebate is the retirement of the ENERGY STAR Certification. The EM&V study recommended removing the ENERGY STAR Certification requirement as it seemed "to be a barrier to builder participation."

The updated Whole Home incentive offers a tiered incentive based on specific energy performance targets. Both tiers of the rebate will require the home to be HERS scored, but no specific HERS score threshold is required. The EM&V evaluation found a lower HERS score did not correlate with more therm savings. Additionally, lower HERS scores could be achieved by implementing non-energy saving measures. While the HERS score threshold is not related to exact therm savings, requiring that the home be HERS scored is important. The HERS score is a way for builders to quantify and certify a home's energy performance, and it is a simple, transparent way for consumers to easily compare homes based on energy efficiency performance, much like comparing cars based on a miles-per-gallon formula.

Having a home HERS scored, one indication of energy efficient home building, is not yet a common building practice in Idaho. According to RESNET, in 2019 only 14% of all Idaho new home starts received a HERS score. The Company believes the requirement to have the home HERS scored will help to educate both customers and builders on energy efficient building.

Continuing to require a HERS certificate will also provide an efficient and reliable process for the Company to verify compliance with the program requirements that affect therm savings. A HERS score can only be obtained by a certified home energy rater, who is subject to certification, quality control, and quality assurance by the governing body RESNET. The specific requirements added to the Whole Home incentive are all components of a HERS score and do not require either additional testing to be conducted, or additional documentation to be provided, to verify the rebate requirements have been met.

The updated Whole Home incentive requirements effective April 1, 2021 are as follows:

Whole Home Tier I - \$900

- HERS Rated
- Air sealing at or below 3 ACH at 50 Pa
- Ceiling insulation at or above R-49
- Ducts and air handler located inside conditioned space or duct leakage to outside of less than 4 CFM25/100 ft2 CFA
- Minimum furnace efficiency of 97% AFUE

Whole Home Tier II - \$700

- HERS Rated
- Air sealing at or below 4 ACH at 50 Pa
- Ducts and air handler located inside conditioned space or duct leakage to outside of less than 4 CFM25/100 ft2 CFA
- Minimum furnace efficiency of 95% AFUE

This two-tiered approach will provide two rebate options for new construction of energy efficient homes. The Whole Home Tier I rebate has an estimated annual therm savings of 161 therms, while Tier II has savings of 128 therms as calculated by ADM.

To allow builders to maximize both energy savings and rebate dollars the offering was updated to allow builders to layer on rebates for Smart Thermostat and/or Water Heater incentives in addition to the Whole Home rebate.

NEW REBATES

The Company continued to receive feedback from contractors that homes with radiator systems cannot install a single unit to supply both space and water heat, and therefore could not utilize the combination boiler rebate. Based on this feedback, a high-efficiency boiler incentive was added during the Program revision. The new rebate provides an \$800 incentive for the installation of a 95% AFUE boiler.

Smart Thermostats have been the most frequently recommended appliance rebate by HVAC contractors, customers, and members of the EESC. The EM&V study also recommended that a smart thermostat incentive be added. A smart thermostat rebate was added for Wi-Fi enabled and ENERGY STAR Certified thermostats and provides a \$100 incentive.

EM&V RECOMMENDATIONS & ACTIONS

The EM&V recommended that the Company standardize the tracking database categorization for rebate status and rejection reasoning. The Company tracked rebate status and recorded rebate rejection reasoning within the tracking database. However, the evaluators recommended using standardized notations for easier filtering and analysis of the data.

The Company created short code designations for the rebate status and reasons for denial of a rebate. The rebate status codes provide a quick look into the current status of a rebate. The short codes the Company developed for rebates that were denied standardized the reasons for denial and can be referenced easily and quickly, eliminating the need to search through detailed comments to find the reason.

The EM&V study surveyed Program participants regarding satisfaction with the Company and the Program. Participants experienced high satisfaction with the Company overall, as well as with the appliance rebates. They expressed high satisfaction with interactions with Program staff, amount of time to receive the rebate, and overall quality of the contractor's work. They also stated they received their rebate in a prompt and timely manner. Overall, Whole Home participants were satisfied with the Program. Respondents were either satisfied or very satisfied with the energy efficiency measures in their homes, and ninety percent of respondents indicated they were either satisfied or very satisfied with Intermountain as their gas service provider.

IMPACTS OF COVID-19

The Company strives to embrace efficiency in all aspects of the Program including rebate processing. The Company was working toward a near paperless rebate process when in March 2020, the worldwide pandemic and transition to work-from-home created an immediate need to adapt to a paperless process. Paper rebate applications that are submitted are now scanned and turned into a digital file and stored in an internal company database while awaiting processing. Rebate applications submitted to the Company as pdf files via email are also moved to the storage database. These rebate applications are organized by postmark date and processed on a first in, first out basis. Digital processes are now utilized for all approvals and check requests. This more efficient process will remain in place as a standard procedure and will help to ensure we are utilizing our labor as efficiently as possible in administering the program.

To better communicate the receipt of rebate applications, the Company added an automated response to its department email, saveenergy@intgas.com. The automated response serves as a confirmation receipt and informs the customer of the expected time frame for rebate processing. The message was customized to fit the evolving conditions during the COVID-19 pandemic. The Company plans to continue providing an automated response and will remove references to COVID-19 related delays when appropriate.

The Company will continue to seek ways to optimize efficiencies and resources. Ensuring efficient program administration is an important step in maintaining cost-effectiveness for the Program as it grows.



PROGRAM OUTREACH, AWARENESS AND EDUCATION

ENERGY EFFICIENCY TEAM

ESRs are an essential part of the EE team in regular day-to-day operations, but even more so in the midst of the 2020 worldwide pandemic. Most event driven outreach methods traditionally employed by the Program were canceled due to COVID-19. Only the ESRs continued to carry out energy efficiency promotion and education responsibilities while implementing strict safety protocols such as social distancing, wearing face masks, and employing limited contact protocols while serving customers, builders, developers, and contractors in the field.

The ESRs promoted energy efficiency with every customer interaction and multiplied the energy efficiency outreach efforts. The connections established by ESRs are a major key to the success of the Program. ESRs are representatives of Intermountain in their respective communities, and traditionally participate in building contractor associations, chambers of commerce events, civic groups and industry related trade shows. Their local participation in these groups allows ESRs to identify energy efficiency outreach and educational opportunities with residential builders, HVAC contractors, and at community events. ESRs are an immediately accessible EE resource in their communities and are often face-to-face with customers which eliminates the need for customers to make multiple calls to different departments within the Company. ESRs are also the "ears" on the ground as they provide first-hand customer and contractor feedback about the Program.

The success of the partnership with the ESRs is evident in the growth by district. While the Treasure Valley, including both Boise and Nampa districts, grew as a whole, the number of rebates grew by the largest percentage specifically in the Nampa district, with a growth rate of 124% over 2019. Most of this growth was due to increased participation in the Whole Home rebate by Canyon County residential builders. The

opposite was true in the Idaho Falls district where appliance rebates contributed the most to the overall 19% growth of rebates in that district. The Boise and Pocatello districts also grew over 2019 participation by 24% and 14% respectively, and in both cases appliance rebates contributed more to the total growth than Whole Home rebates. Rebate participation grew in all regions with the exception of the Twin Falls/Hailey region. More analysis is needed to fully understand why adoption lags in this region. Initial assumptions include lack of ENERGY STAR Certified HVAC contractors and current energy efficiency practices. The Whole Home rebate required the home to meet ENERGY STAR Certification, which required ENERGY STAR Certified HVAC professionals. The lack of ENERGY STAR Certified HVAC contractors in this region, appears to be one market barrier to Whole Home participation in the Magic Valley. As of April 1, 2021, ENERGY STAR Certification is no longer a requirement of the Whole Home rebate, so the Company is optimistic it will see increased uptake in that region.

The Program will continue to build on successful outreach strategies and research and address areas where participation may be lagging. As a first step, the Company will explore more targeted promotions and seek to better understand energy efficiency attitudes and practices in the regions where Program adoption lags.



Table 3. Residential Rebates Growth By District.

CUSTOMERS AND COMMUNITY

Consistent with the outreach strategy employed in previous years, in 2020 the Program focused on three primary groups for outreach and education efforts: customers and the community at large, contractors, and home builders. Due to the challenges posed by 2020 health and safety restrictions, almost all in-person outreach opportunities were canceled. The Program was required to pivot to alternate methods of outreach to promote energy efficiency.

The Company strives to maintain a digital presence on social media. This was never more important than in 2020 when the only safe way to engage with customers was virtually. In 2020, posts focused on raising awareness about rebates, energy efficiency tips for the home, benefits of an ENERGY STAR Certified Home, and also leveraged events like ENERGY STAR Day, Earth Day and Efficiency Day. Three posts promoted the availability of rebates outright, as seen in *Figure 2*. Five posts provided general energy efficiency tips for the home, such as air sealing and replacing furnace filters. Other posts were timed for the season such as a September post "It's Fall, Ya'll..." about preparing the home for winter. Three

Intermountain Gas Company Published by Buffer I · February 25, 2020 · S Intermountain Gas offers many rebates and incentives for old homes, new homes, and homes under construction. Take advantage of these valuable rewards available to both homeowners & builders! Check out a full list of offers and eligibility requirements at



Figure 2. Energy Efficiency Facebook post.

posts highlighted special days dedicated to efficiency such as ENERGY STAR Day. Social media was also used to promote ENERGY STAR Certified Homes in the virtual parade of homes, a partnership the Company has relied on to promote energy efficient home building.

An EE brochure is included with all new customer letters. These letters are sent to both customers signing up for service for the first time, and customers who stop and start service when relocating. In 2020, 36,642 EE brochures were sent with customer letters.

In 2020 the Company conducted the Soups on Savings on Sweepstakes, a sweepstakes contest designed to encourage customers to learn more about the rebates offered coordinated with an EE Program customer bill insert. The Company aimed to educate customers on the "alphabet soup" of efficiency ratings like AFUE, UEF and HERS. The bill insert provided answers to the questions: "How efficient is your furnace? What is the UEF of my water heater? What is a HERS score?" See *Figure 3*. From October 5, 2020 through November 9, 2020 the Company provided customers an opportunity to enter the contest via an entry page on the EE website. Customers entered the contest using either the OR (quick response) code or via a link on the bill insert. A link to the contest entry page was also promoted on the Company home page and on Facebook.





Soup's on! Savings on!

Win the ultimate scop setupl Wire giving ways a Le Creuset Round Dutch Oven, One Pan Wonders Dutch Oven, Oak Book, set of 4 soup bowls, and 4 Hary & David¹¹⁴ soup mixes during our October Energy Efficiency, Sweepstakes. Ertrer at our website by scanning the OR code with your mobile device or by visiting www.intga.com.

Energy Efficiency Alphabet Soup

 How efficient is your furnace? Check
 the AFUE of Argued Fuel Utilization the AFUE or Annual Fuel Utilization Efficiency! The AFUE is listed as a percent of how much fuel your furnace can conver into usable heat. The higher the AFUE percentage, the more efficient the furnace which means lower heating costs and PRO TIP: Get a \$350 rebate when yo



at is the UEF of my w Energy Factor and measures the efficiency of your water heate The higher the UEF, the higher the efficiency and the higher y tavings! A high efficiency water heater has better insulation, he rans and more officiency. ms and uses about 10% PRO TIP: Install a 0.67 UEF or or



Find rebate details and more tips at www.intgas.com/saveenergy.

Metrics gathered from Google Analytics showed social media and the QR Code accounted for 94% of the total page-views on the entry page site. The other 6% came from traditional search engines. Customers from every region of the service territory entered the contest, for a total of 390 entries in the Soups on Savings on Sweepstakes. One winner was selected at random for the prize package.

The Company was unable to engage with the community in the typical community events like trade shows and conferences because of cancellations due to COVID-19. Intermountain looks forward to resuming these promotional activities in the future as they are a vital tool to Program outreach and education efforts.

CONTRACTORS

During the world-wide pandemic customers sought the safety of their homes, either by choice or by mandate. While cities shut down, work stoppage wasn't an option for essential services like natural gas delivery and the related building and HVAC service experts. Contractors and inspectors discovered ways to meet the needs of the customer while employing new safety protocols. Perhaps more time at home, and consequently higher energy consumption spurred customers to seek out ways to save money and energy. In a year where a downturn in Program participation might be expected, the Program instead paid out more rebates than ever before. Contractors remain a vital partner in energy efficiency efforts.

Since its start, the Program viewed ease of use and accessibility as a key point in contractor and customer participation. In September 2019 the Company launched an on-line rebate submission form, as requested by contractors. In the first full year of offering the on-line form, 15% of all appliance rebate submissions were returned using the on-line form. In conjunction with the on-line form the Company created the Contractor portal. This password-protected contractor section of the website contained contractor resources such as quick links to the rebate forms and industry related news items that were updated each month. News items contained timely topics pertinent to contractors and energy efficiency, such as indoor air quality and preventing COVID-19 exposure, the importance of blower door tests, and promotion of training events.

In an effort to promote the use of the online rebate application and get contractors to convert from paper rebate forms to the on-line form, the Company developed a contractor specific sweepstakes. The Contractor Bonus Bucks Sweepstakes, offered five gift cards, awarded to one random winner in each of the Company's five districts. Every on-line application received was considered a contest entry for the contractor identified on the application.



Figure 4. Online rebate tutorial from Intermountain Gas YouTube Channel.

Sweepstakes entries were accepted for the entire month of October and winners were notified on November 6th. To promote the Contractor Bonus Bucks Sweepstakes the Program utilized an extensive contact list of over 200 contractors and the contest was promoted through three separate notifications.

The online form was designed with quality assurance checks built in that prohibit form submission without complete information. This greatly reduces the need for call-backs, clarifications, or additional information requests, and streamlines general rebate processing. The goal of the contest was to incentivize contractors to convert from the paper application to the on-line rebate application. In order to assist contractors in converting, and since no in-person training could be hosted, the Company created a step-by-step online rebate application training video. The eight-minute long video walked the viewer through each step of filling out the online form, from locating it in the contractor portal to clicking submit. The Program unveiled this new educational tool during the Contractor Bonus Bucks Sweepstakes and links to the training video were provided in the promotional emails. In addition to promoting the Contractor Bonus Bucks Sweepstakes, the training video is as relevant today as when originally published. The Company

posted the video on the Intermountain Gas public YouTube page and in the contractor portal on both the home page and the rebate application sections.

The Contractor Bonus Bucks Sweepstakes resulted in lower than expected participation with a total of 32 entries from four districts across the Program service territory. While the rebate application training video remains an instructional asset for the Program, the overall number of video views was also low. Although the instructional video was easily accessible, 8 minutes may be too long for busy schedules, or perhaps video tutorial is not the preferred method to learn about new procedures. The Company will use the results of this promotion and discussions with contractors to determine other creative ways to incentivize contractor participation in future programs. Intermountain will also consider alternative ways to promote the on-line form, explore whether contractors indeed value the benefits of the on-line form, and contemplate if promoting the on-line form with customers directly is a better option.

The most frequent customer response on the rebate application to the question, "How did you hear about the program," is "Dealer/Contractor." The number of contractors promoting the Program continues to grow. In comparison with 2019, the total number of contractors promoting the Program increased from 161 to 170. Of the 170 contractors, 41% were contractors new to the Program, 59% were retained from the previous year, and 38% participating in 2019 did not return in 2020.

Contractors continue to be vital partners in promoting energy efficiency. One ESR reported,

"While I'm speaking with the homeowner, I always ask them if they spoke with their heating contractor about the installation of high efficiency gas equipment. It's a pretty good mix of answers from "I don't know. He just told me how much a new furnace would cost," to "yes, they told me I should consider getting the best equipment possible and they recommended a high efficiency system." They rely on HVAC contractors to guide them. If the HVAC contractor doesn't know about the EE programs, chances are the homeowner won't either. They expect the experts (dealers) to know what they should do."

To continue to increase Program awareness with contractors, the Company obtained a list of contractors from the Division of Building Safety. Postcards featuring Program information, helpful tips, and contact information were mailed to 325 contractors identified as never having been listed as an installing contractor on a rebate application. See *Figure 5*.

The Company will continue to raise awareness of the Program with contractors, explore ways to engage contractors in the Program, and provide the resources and tools necessary to make energy efficiency easy and accessible. Prior to 2020, the Company experienced success in leveraging partnerships with organizations like Idaho Division of Building Safety to promote the Program and partner on in-person training opportunities. The Company will look to resume these kinds of activities as circumstances allow and explore additional partnership and educational opportunities.



Figure 5. Contractor EE Program outreach postcard mailing.

HOME BUILDERS

Along with Idaho's population growth, participation in the Program's new construction rebate, Whole Home, grew as well. The number of builders earning the Whole Home rebate increased, as did the total number of homes rebated. The Company continued to reach out to builders through existing memberships in Building Contractor Associations (BCA), and used BCA community events like Parade of Homes to continue to raise awareness about home energy efficiency. Home energy raters continue to be valued partners in energy efficiency as experts in both construction-speak and home energy efficiency performance. With the major overhaul of the new construction rebate in 2021, the Company will seek ways to harness the successful momentum of the initial program and channel that into the new Program offering. The Company continued to raise awareness about energy efficiency and Program offerings through participation in the five BCAs in the Company's service territory. Attendance at BCA general membership meetings and participation on specific committees allowed the Company to network with both builders and home building adjacent industry leaders like home lenders, HVAC and plumbing contractors, and realtors, as well as BCA leadership. In one instance, the Company was invited to participate in a firsttime event, "Breakfast with a Builder" event.

In an effort to increase networking opportunities, one of the BCAs introduced a new invitation-only monthly event, which featured a small breakfast meeting for one homebuilder and five to seven associate BCA members. This smaller, informal setting provided a one-on-one opportunity for builders to network with home building associates and facilitated more in-depth conversations than the typical limited networking conversations of a 150-person luncheon. Association networking and participation by the EE team led to more access and inclusion in builder events.

Although opportunities were limited in 2020, one of the most effective builder and community outreach activities continues to be active golf hole sponsorship at BCA and community golf tournaments. Implementing strict safety protocols, such as face masks, social distancing and implementing no contact protocols (no handouts, no handshakes), the Company hosted active golf holes at seven different golf tournaments throughout the Program's service territory. The Company used these sponsorships to promote Program offerings through brief, one-on-one conversations with all tournament participants, including builders, as each team progressed through the golf course. The informal setting, and



Figure 6. Outdoor information table.

efficiency-themed golf games, provided a natural segue to marketing the Program offerings, or if they were already participating in the Program, provided an opportunity for feedback about the Program.

The cancellation of many events in 2020 due to COVID-19 added more importance to the golf tournament sponsorships. These were one of the few opportunities that the Company had to interact in person with Program participants and potential participants. The Company's commitment to safety, along with specific safety protocols provided by tournament hosts, led to a safe and productive tournament sponsorship season.

Annual Parade of Homes (Parade) hosted by each BCA across the Company's service territory have traditionally been an integral promotional opportunity for the Program to interact with builders, contractors, and the community at large. Although 2020 was not a traditional year, these events were still able to go on in a new, virtual capacity. The safety protocols that were put in place due to COVID-19 required the Company to completely revamp the outreach approach, as in-person information tables and distribution of brochures were no longer an option. The virtual parade of homes eliminated the opportunity for visitors to tour model homes in person. Each BCA created a virtual parade of homes by enlisting professional photographers to create virtual tours of each home, allowing the viewer to tour the home by clicking through photos that showcased every aspect of the home.

The Company tailored outreach efforts to accommodate virtual parade of homes by designing a parade of homes ad with a OR code that directed viewers to "see" an ENERGY STAR Certified home, with a list of builders and their respective ENERGY STAR Certified homes featured in the parade. The Company reached out to all Parade builders with this opportunity to earn additional promotion for their Parade home and raise awareness about the Whole Home rebate. The advertisement in the BCA virtual Parade magazine promoted ENERGY STAR Certified homes in the Parade and energy efficient builders. Over the course of the 2020 program year, thirteen different builders who were participating in four different Parade of Homes across the Company's service territory participated in the Company's promotional offering. Overall, visits to the webpage via the QR code provided in the ad was low. While it was the perfect opportunity to attempt to pivot to a digital marketing option, the Company had several take-aways: Customers are still learning

to use the QR code, customers are required to take an additional step (visit the website) vs. visiting or seeing an information table as they enter a Parade home, and overall traffic to the virtual parade was low.

Once safety protocols were developed and incorporated into public events, which included limiting the number of visitors at one time, supplying face masks and sanitizer at each home, one BCA hosted a traditional in-person Parade event. Historically, this Parade consistently experienced high attendance and 2020 continued this trend with an estimated 9,000 visitors. This BCA offered members the opportunity to purchase space in the garage of the Parade homes to set up informational booths. The Company seized the opportunity to partner with three Parade builders and supplied two builders with Program marketing materials. In the third home, the ENERGY STAR Certified home, the Company used the garage space to host an informational table as visitors exited the home. This was an excellent opportunity for the Company to provide attendees with information about an ENERGY STAR home while physically standing in an ENERGY STAR Certified home. Sponsoring garage space in Parade homes provided an opportunity to promote the EE Program both passively, and actively.

In addition to reaching out to builders in the BCAs, the Company also promoted the Program to all residential building contractors in the service territory. A postcard was mailed to 1,245 residential building contractors. The postcard promoted the Whole Home rebate as well as the benefits of higher sales prices and faster home sales for energy efficient homes.

In 2020, the Company paid out 1,536 Whole Home rebates, an increase from 1,079 in 2019. Thirty-six home builders accounted for those rebates requiring ENERGY STAR Certification and a HERS score of 75 or lower (lower is more efficient), compared to twenty-four builders in 2019. Sixteen new builders participated in 2020, while three builders from 2019 did not continue to participate in 2020. Most of the ENERGY STAR Certified homes were in Boise, followed by Nampa and Idaho Falls. There were no Whole Home rebates in Pocatello or the Twin Falls/Hailey region.

Incorporating energy efficient measures during the build process is the easiest point in the home building process to install energy savings measures like air sealing, duct sealing and insulation. For builders who may not be ready to build to ENERGY STAR Certified standards, the Company also incentivizes builders to



Figure 7. Advertisement in Parade of Homes magazine.



Figure 8. Information table in an ENERGY STAR certified Parade Home.

install energy efficient furnaces and water heaters as a stepping-stone to higher efficient homes. Builder participation in appliance rebates grew from 29 builders in 2019 to 32 builders in 2020, which included 13 new appliance builders and 10 builders that did not return to the Program in 2020. Furnace rebates for new construction accounted for 39% of all furnace rebates, an increase from 17% in the previous year.

Intermountain received the 2021 ENERGY STAR Certified Home Market Leader Award, for "outstanding commitment to energy-efficient new homes," from the Environmental Protection Agency (EPA). This is the third year in a row in as many program years that EPA recognized the Program for important contributions to energy-efficient construction and environmental protection. According to the annual statistical report, "Trends in HERS Rated Homes" provided by RESNET, there were 2,121 HERS rated homes in Idaho in 2019. In 2020, the number of HERS rated homes grew to 2,414. For those same years, Intermountain rebated 1,079 of the 2,121 HERS rated homes, accounting for 51% of all Idaho HERS rated homes. In 2020, that percentage grew to 64%, as 1,536 of all 2,414 Idaho HERS rated homes were Intermountain rebated homes. In 2020, the Idaho Business Review reported on two Idaho companies recognized by the EPA as ENERGY STAR Partner of the Year – Sustained Excellence awards: Building Energy, a certified home energy rating company, and residential builder Brighton Homes. Both organizations

participate in the Company's energy efficiency program. When asked to comment, Brighton responded, "Brighton has also partnered with Intermountain Gas Company in a public education outreach program on why consumers should choose ENERGY STAR Certified homes, equipment and appliances." Brighton Homes was the first builder to partner with the Company in a Parade of Homes promotion to raise awareness about ENERGY STAR Certified homes. The Company intends to expand on proven successful outreach strategies, like builder partnerships, to continue the momentum of builder participation established in the first three years of the Program.

Intermountain Gas Energy Efficiency Program

Don't leave money on the table!

- Energy rated homes are sold for, on average,
 2.7% more than unrated homes.
- While having a home energy score can increase the home sale price, a *better* score also means more money! More energy efficient homes sell for 3-5% more than less efficient homes.
- You could earn a \$1,200/per home rebate when you qualify for the Intermountain Gas Energy Efficiency WHOLE HOME rebate

Figure 9. Residential home builder EE Program outreach postcard mailing.



Get details about natural gas

appliances and new construction WHOLE HOME rebates available from Intermountain Gas.

Use your smartphone camera to scan the QR code below:



Or visit: s://www.intgas.com/energyficiency/rebate-program/



EM&V PROCESS EVALUATION

The EM&V impact study focused on the evaluation of two measures, while the process evaluation assessed Program operations, overall Program effectiveness, and identified areas for Program improvements. ADM reviewed Program materials and tracking methods, collected data from Company staff and contractors, and surveyed both participants and non-participants.

Evaluators found the Program performed well during the first two years, and the Program used a broad range of efforts for Program marketing and community outreach. For the Whole Home rebate, evaluators stated builder participation increased due to Program recruitment efforts. Builders cited market differentiation and the financial incentive as the main drivers of Program participation. Contractors familiar with other energy efficiency programs indicated they were largely satisfied with the design and participation process of the Company's program. Evaluators also affirmed contractors have a crucial role in promoting high-efficiency equipment and general Program awareness with customers. Since the Program is still in a phase of raising awareness, it was not surprising several study conclusions indicated non-participant builders were generally aware of energy efficiency measures, but not the Whole Home rebate, and similarly, participants broadly understood Program requirements, but would benefit from further explanations.

Evaluators recommendations largely focused on increasing communications, providing marketing materials, and providing educational materials. For builders and the Whole Home rebate, evaluators recommended the Company continue to recruit builders through community events and generate awareness about the Whole Home rebate. The Company should develop educational materials that increase knowledge of the benefits of owning an energy efficient home, as well as engage builders with specific cost-savings estimates to use with homebuyers, and provide builders with additional marketing materials to promote the Whole Home measure. Regarding contractors, the study found opportunities to increase communications with contractors to raise awareness about tools like the on-line form, provide more training opportunities, offer a way for contractors to track the status of rebates, and for the Company to consider establishing a contractor network. For customers, ADM recommended the Company explore incorporating new measures in the Program offering, develop new

educational materials like on-line instructional videos or educational materials, and continue community outreach to increase customer knowledge and general understanding of energy efficiency.

The Company has been actively working to address the recommendations resulting from the EM&V study. The revised Program offering effective April 1, 2021, addressed several recommendations.

The revised Program offering also provides the Company the perfect opportunity to refresh and update the recommended marketing and educational materials for builders and contractors. New educational materials about the HERS score will also serve to raise awareness about home energy efficiency, the Whole Home rebate, and the cost savings of energy efficient homes, which is applicable to both builders and homeowners. These materials will be incorporated into the builder promotional package for Parade of Homes builder partnerships. The Company is exploring interactive, on-line educational tools for the energy efficiency website, such as an energy savings estimator to compare standard equipment to high-efficiency equipment. The calculator should help to increase customer knowledge and general understanding of energy efficiency.

The Company is dedicated to continuous Program improvement and embraced most of the recommendations from the evaluation. Implementation of some recommendations will require more significant consideration by the Company, especially in regard to the potential impact to Program cost-effectiveness. Although offering contractors and customers a way to track the status of rebates would provide an exceptional level of customer service, such a feature would require a significant investment in Program software. Likewise, the idea of a contractor network, or trade ally, is not new to the Company, and has been given considerable deliberation. The Company will continue to explore implementing a contractor network with regard to resource requirements for administering such a program and optimizing the timing of launching such a program. Currently, the open invitation to contractors to participate in the Program has helped the Program to gain momentum in raising awareness and participation. The benefits of a contractor network will continue to be weighted against the potential impacts on the Program, both positive and negative.

ENERGY EFFICIENCY STAKEHOLDERS

The role of the Energy Efficiency Stakeholder Committee is an important one, providing information, guidance, and expertise on the process and development of the Program. As the Program grows, so does the role and the focus of the EESC. Since the Program was initially available only to residential customers, the original EESC focused solely on the residential Program. In 2020, the EESC was instrumental in reviewing and interpreting recommendations from the EM&V study and implementing revisions to the residential program offering. From the EESC a subcommittee was formed, specifically to review the Program's avoided costs and avoided cost calculations. Then, stakeholders with natural gas commercial expertise were added to the committee to form the EESC-Commercial subcommittee. This subcommittee advised on the development of the Company's first ever commercial energy efficiency program.

AVOIDED COST SUBCOMMITTEE

Intermountain invited interested members of its EESC to join an Avoided Cost Subcommittee (AC) that would address the avoided cost issues raised in Order No. 34536. The Subcommittee met three times between February and June 2020. The AC agreed upon a method for calculating avoided commodity and transportation costs but could not agree on a method to account for avoided distribution costs. The Company's Avoided Cost Calculation includes avoided commodity and transportation costs and leaves a placeholder for potential inclusion of distribution costs in the future. The AC agreed to continue to discuss options for addressing avoided distribution costs.

The Company will update the Gas Transportation Costs included in the avoided cost calculation annually with its PGA Adjustment filing. The Commodity Costs will be updated as part of the IRP planning cycle, and an updated avoided cost calculation will be filed as an exhibit in the IRP.

ENERGY EFFICIENCY STAKEHOLDER COMMITTEE

Intermountain hosted three EESC meetings to share the EM&V study and discuss resulting program changes. The first meeting on August 5, 2020 was held to review the material that would be included in the 2019 Annual Report that was filed as part of the Original Application in Case No. INT-G-20-06.

At the second meeting on September 16, 2020, ADM presented the findings of the EM&V study and Intermountain presented proposed Residential EE Program revisions. The EESC had concerns with several of the changes Intermountain proposed to the Whole Home rebate. As a result of the discussions, Intermountain commissioned a follow-up study from ADM to explore the best options to improve therm savings while encouraging additional builder participation. The Company also reviewed information from the 2019 Idaho Residential Energy Code Field Study and the Idaho Code Collaborative.

On October 27, 2020 the EESC met again to review proposed EE Program revisions. The EESC was supportive of the proposal. A question was raised regarding the appropriate duct leakage requirement to include in the revised Whole Home rebate. The Company agreed to further review that requirement before proposing a final rebate.

EESC- COMMERCIAL

The Company recruited commercial industry experts to join the EESC to form a Commercial subcommittee. The EESC-C provided guidance and expertise regarding the development of the first ever energy efficiency rebate offering for commercial customers. A building control representative who specialized in products to reduce energy use and operational costs, and a representative from a commercial kitchen design and equipment provider, joined the EESC-C. Both had prior experience participating in energy efficiency rebate programs. The inaugural meeting of the EESC-C was in July 2020. The Company presented the proposed program offering based on the CPA study by

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Dunsky Energy Consulting. The Company reiterated that like the residential program, the primary goal of the commercial program is to secure cost-effective savings. The Company's strategy to launch a commercial program mimicked the strategy of the residential program: design a modest initial offering with room to grow. The EESC-C discussed the proposed offering including how rebates were selected based on cost-effectiveness, therm savings, administrative feasibility, and assumptions and estimates used in forecasting.

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The Company proposed the use of an Energy Saving Kit (ESK) with a combination of smaller energy saving applications like faucet aerators and pre-rinse spray valves. The EESC-C provided helpful insights on the benefits of combining smaller measures into an ESK. The committee suggested partnering with contractors on the distribution of the ESKs. The EESC-C believed the ESKs would help the Company build relationships with contractors and initiate conversations with commercial customers. Additionally, distributing the ESKs through contractors would ensure equipment is installed and installed properly.

Other ideas from the committee included restricting the boiler reset control measure to space heating only, as this type of measure is ineffective in water heating. Commercial kitchen griddles were not on the original list of proposed measures, however, an EESC-C member recommended the Company explore this option as there are high-efficiency, ENERGY STAR Certified griddles available in the market. Upon further research, the Company found the appliance to be costeffective and added it to the commercial kitchen offering. Several committee members expressed an interest in the possibility of a custom project and the role of commissioning equipment to capture long-term savings. The Company is interested in pursuing a custom offering but will first focus on establishing the initial commercial rebate offering. The Company will continue to recruit members with industry expertise to guide and consult on the Program.



ENERGY EFFICIENT FUTURE

Intermountain is committed to helping customers save energy and money today, while also working to secure an energy efficient future.

The rebate program is a traditional resource acquisition program focused on capturing savings quickly. The long game to energy savings is based on an understanding of how the market works, the market actors, the baseline market, and how to create lasting change by strategically intervening in the market. As part of Intermountain's efforts to secure an energy efficient future, the Company participated with two organizations that focus on accelerating the adoption of natural gas heat pump technology.

Intermountain has long been a member of the Gas Technology Institute (GTI). GTI is the leading research, development and training organization addressing energy and environmental challenges to enable a secure, abundant and affordable energy future. Intermountain participates in GTI's Operations Technology Development (OTD) and Utilization Technology Development (UTD) collaborative member groups which are focused on different aspects of the value chain. OTD is a member-controlled partnership to develop, test, and implement new technologies related to the safe and reliable operation of the natural gas infrastructure. UTD, also a member-controlled partnership, conducts near-term applied research to develop, test, and deploy energy-efficient end-use technologies.

Intermountain's Energy Efficiency Program participates specifically in UTD's Emerging Technology Program (ETP), which is a member-driven collaborative to accelerate the introduction and acceptance of new emerging technologies for energy efficiency programs. ETP picks up at the final stages of UTD's research process and focuses on "identifying and addressing data or market barriers, including the development of new measures, impacts of disruptive technologies, awareness and education." ETP also provides technology snapshots, project summary reports, case studies, white papers, and other resources for training and outreach. Intermountain participated in both the Spring and Winter membership meetings in 2020. The meetings are an opportunity to discuss high potential focus technologies, active projects and connect with GTI's subject matter experts. Residential HVAC, water heating, and commercial food service are examples of a few of the steering committees under the ETP umbrella of work.

Intermountain partnered with GTI and 15 utility sponsors in the gas heat pump roadmap and a follow up Residential Thermal Heat Pump Combi-System Field Demonstration (Demonstration). The goals of the Demonstration are to monitor performance



for longevity, operations, maintenance, delivered comfort, and to evaluate installation efforts to support commercialization of gas heat pump technology.

As gas heat pump technology nears commercialization, the Company is also committed to identifying market barriers and impediments to market acceptance of gas heat pump technology. The North American Natural Gas Heat Pump Collaborative (Collaborative) is poised to address these issues. Intermountain joined the Collaborative in 2019 as a charter member and continued its membership in 2020. The Company's investment in the Collaborative will secure an energy efficient future for customers by accelerating the production, availability, and adoption of high efficient natural gas heat pump equipment. The Company contributed the membership fee and participated on the operations committee, the gas heat pump water heater committee, and the residential gas heat pump combination committee, allowing the Company to offer input and feedback regarding the direction and objectives of the committees. The Collaborative continues to make excellent progress as a newly formed North American effort advancing the adoption of gas heat pump technology. The gas heat pump water heater committee completed market conditioning phase 1, including a market characterization study and identified strategies beyond the typical go-to-market strategies to achieve greenhouse gas reduction and therm savings.

The residential heat pump combination committee prepared to conduct market conditioning tasks such as market characterization research and a supply chain development plan. A recruitment committee and communications committee were both established in the last year. As a charter member of the Collaborative, the Company received access to all meeting discussions, information, and study results of the various projects in which the Collaborative is engaged.

The Company will continue to explore opportunities to promote gas heat pump technologies. One such opportunity would be participating in a field demonstration of gas heat pump equipment. A demonstration would allow the Program to raise awareness about the near-term availability of heat pump technologies with home builders, suppliers, distributers, and contractors. Not only will there be a need to raise awareness about this new technology, but contractor education regarding installation is also a potential hurdle. A field demonstration provides a hands-on opportunity to address both, while substantiating the energy saving capabilities of gas heat pump applications in cold climates. A project of this magnitude will require significant consideration and planning but is an actionable step towards delivering new energy savings, lower energy bills, and preserving fuel choice for customers into the future.

LOOKING AHEAD

The progress of two exciting Program developments from 2020 will have the greatest impact on the future of the Program: the revised residential program offering and the launch of the commercial program.

In order No. 34980, issued in Case No. INT-G-20-06, the Idaho Public Utilities Commission deemed the 2019 Program expenses as prudently incurred. Additionally, the Commission acknowledged the Company has made substantial progress on updating its avoided cost methodology and advised the Company to continue to review and update avoided cost calculations. Modifications to the residential offering were approved by the Commission and went into effect April 1, 2021. Lastly, it was ordered the Company continuously monitor, evaluate, and update Program incentives with the best available data.

The Company looks forward to leveraging the revised residential rebate offering to build on the momentum started by the initial program offering launched three short years ago. Incorporating additional incentives into the offering, creating tiered incentives to increase participation, and increasing incentive amounts where cost-effective, will provide customers more opportunities to save money and save energy. In addition to providing money and energy saving opportunities to residential customers, Intermountain looks forward to engaging commercial customers in the new commercial rebate program.

Committed to continuous improvement to help customers save money and energy, the Company will continue to collaborate with the Energy Efficiency Stakeholder Committee and the various subcommittees, such as the avoided cost subcommittee and commercial subcommittee, on Program progress and developments. The Company embraces the enthusiasm customers have demonstrated for energy efficient solutions and will continue to put the best solutions forward to meet those needs.







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