INTERMOUNTAIN® GAS COMPANY
A Subsidiary of MDU Resources Group, Inc.
In the Community to Serve®

Energy Efficiency

ANNUAL REPORT

INTERMOUNTAIN GAS COMPANY

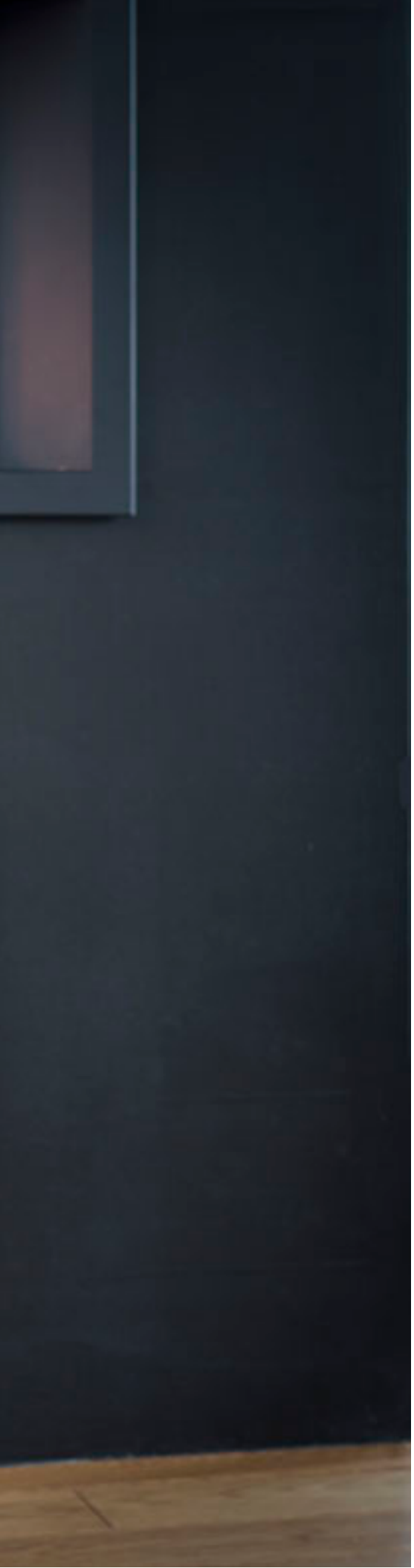
INTERMOUNTAIN® GAS COMPANY

A Subsidiary of MDU Resources Group, Inc.

In the Community to Serve®

Energy Efficiency

August 2019



INTERMOUNTAIN GAS COMPANY
Energy Efficiency Annual Report

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTERMOUNTAIN GAS COMPANY
Energy Efficiency Annual Report

TABLE OF CONTENTS

LIST OF SUPPLEMENTS

Intermountain Gas Company
Executive Summary
2018

Intermountain Gas Company (Intermountain, IGC, or Company) kicked off 2018 with the launch of its new Energy Efficiency Program (EE Program). The response to the program was overwhelming and resulted in the actual therm savings realized for the year exceeding both the year one target and stretch goal. The EE Program is available to all residential rate class customers in the Company's service territory and consists of two main categories: high-efficient appliances and new residential construction earning both ENERGY STAR certification and a Home Energy Rating Score (HERS) of 75 or less.

The EE Program encourages the wise use of natural gas and provides economic benefits to participating customers by lowering their usage and thus their monthly energy bills. By reducing the amount of natural gas that customers use the Company can also utilize its existing resources more efficiently, which keeps costs low for everyone.

283,067
therms saved

Intermountain achieved an estimated first year savings of 283,067 therms, exceeding both the year one target of 65,000 therm savings and the stretch goal of 97,825 therm savings. The natural gas saved through the EE Program was enough to serve 386 homes in the Company's service territory (based on average annual usage of 742 therms). The EE Program was also cost-effective based on the UCT (Utility Cost Test) with a ratio of 1.23. The TRC (Total Resource Cost) ratio was 0.64.

Rebates for the installation of high-efficient natural gas furnaces and construction of ENERGY STAR certified homes were the two highest contributors to the 2018 energy savings. Therm saving contributions by other measures were modest due to issues, such as: a lack of appliance availability in the marketplace (80% AFUE fireplace) and an ambitious minimum efficiency requirement (0.67 EF tanked water heater) relative to the industry standard install (0.59 EF).

Intermountain's Energy Efficiency Charge rider funds the EE Program. Collection of the $0.00367 per therm charge began on October 1, 2017. Rider charge collections for the 15-month period ending December 31, 2018 were $1.2 million. Intermountain officially launched the EE Program January 1, 2018. The total expenditures for the year were $1.5 million. An overwhelming customer response to the launch of the EE Program resulted in program expenditures exceeding collections by $300,000 for the year.

IGC focused initial outreach efforts on three target audiences: customers, contractors (HVAC contractors and home energy raters), and home builders. The Company used traditional outreach methods such as bill inserts and an energy efficiency website to raise awareness about the program, and IGC also leveraged existing industry memberships and unique partnerships to promote the new EE Program.

Intermountain invited stakeholders to a meeting on November 29, 2018. The meeting provided a forum for the Company to provide an update on the status of the program and to answer questions, as well as an opportunity for stakeholders to provide input about the program. While the feedback on the program was mostly positive, the Company took steps to address concerns and suggestions raised during the meeting.

To assist in planning for the future, Intermountain has engaged a third-party consultant to conduct a Conservation Potential Assessment (CPA), to assist in refining and growing the EE Program. In addition, in 2019, The Company will be issuing an RFP (Request for Proposal), for an Evaluation, Measurement and Verification (EM&V) study.

This Energy Efficiency 2018 Annual Report provides a review of Intermountain Gas Company's Energy Efficiency Program finances, cost-effectiveness and performance by measure, activities and lessons learned throughout 2018, and outlines future plans for the EE Program.

Intermountain Gas Company
Introduction
2018

Intermountain Gas Company, a subsidiary of MDU Resources Group, Inc, is a natural gas distribution company serving approximately 365,000 residential, commercial and industrial customers in 75 communities across southern Idaho since 1955.

Energy efficiency provides many benefits to both Intermountain and its customers. From Intermountain's perspective, reducing demand per customer on the system provides operational efficiencies and reduces upward pressure on customer prices. All customers benefit from using Intermountain's infrastructure as efficiently as possible which reduces the need for expensive upgrades and keeps prices low for everyone. When individual customers participate in the program, they benefit directly through increased comfort and lower monthly energy bills. Cost-effective energy efficiency is a win for everyone.

This report focuses on the inaugural year of Intermountain's EE Program. It provides an analysis of program savings, a description of program activities, and reviews program cost-effectiveness and results on both a portfolio and individual measure level.

Prior to the start of the EE Program, Intermountain offered a $200 rebate for the installation of a 90% AFUE or greater efficiency natural gas furnace when the customer converted from an alternative heat source. Following the approval of Intermountain's new program, the $200 furnace rebate was cancelled effective December 31, 2017.

The Company began its efforts to pursue cost-effective energy efficiency in the form of natural gas savings by creating an energy efficiency rebate program. Intermountain's EE Program was approved by the Idaho Public Utilities Commission (IPUC) in Order No. 33888, effective October 1, 2017. The new EE Program offers rebates on high-efficient equipment, whether it is replacement, new construction, or conversion from another energy source. The program also offers rebates for new construction homes that have an energy efficient design meeting the requirements of the EE Program. Energy efficiency rebates are available to all residential rate class customers within the Company's service territory.

During the 2017-2021 IRP process, the Company set a therm saving target of 65,000 therms for the first year of the EE Program and a stretch goal of 97,825 therms.

In the first year of the program, IGC exceeded both of those targets with an estimated first year savings of 283,067 therms.

To launch the program, Intermountain focused on three main target audiences: customers and the community at large, contractors, and home builders. The Company used traditional means of marketing the program, such as bill inserts and an EE Program website. Additionally, Intermountain leveraged social media and unique partnerships to raise awareness and education about home energy efficiency in general, and more specifically, the energy efficiency rebate program.

The EE Program is funded through the Energy Efficiency Charge rider which collects $0.00367 per therm from the Company's residential customers. The Energy Efficiency Charge rider was approved and began collecting funds on October 1, 2017. The total funds collected for the 15 months ended December 31, 2018 were $1.2 million.

As proposed in Case No. INT-G-17-03, the planned EE program expenses necessary to acquire cost-effective therm savings totaled $777,000. This included $600,000 in rebate expenses, $147,000 in personnel expenses and $30,000 in program delivery expenses. An overwhelming customer response to the launch of the EE program resulted in total expenditures of $1.5 million, exceeding the plan by over $300,000. As the balance in the rider account continues to grow, Intermountain will review whether an adjustment to the Energy Efficiency Charge is necessary.

2017-2018 Plan to Actual Comparison		
	Plan Over/(Under) Collection	Actual Over/(Under) Collection
Revenue	$ 777,000	$ 1,185,328
Program Expenses		
Residential Energy Efficiency	600,000	1,227,650
Labor	147,000	189,962
Program Delivery and CPA	30,000	78,586
Total Program Expenses	777,000	1,496,198
Rider Account Balance	$ -	$ (310,870)

Table 1. 2017-2018 Plan to Actural Comparison

Rebate requirements, performance, cost-effectiveness and lessons learned are outlined in this report both from the perspective of the program portfolio in total and from an individual measure perspective. Program outreach and education activities are also reviewed, followed by community feedback and planned next steps for the EE Program.

YOUR ENERGY STAR® CERTIFIED NEW HOME

BETTER IS BETTER

Intermountain Gas Company
Energy Efficiency Programs
2018

619
ENERGY STAR Certified homes built

Over 1,300
high efficient furnaces installed

The EE Program was offered to all customers receiving natural gas through IGC's Residential Rate Schedule. The portfolio was comprised of two main categories of offerings: high-efficient appliances and construction of ENERGY STAR certified homes. The high-efficient appliance rebate offering focused on three groups: Space Heating, Fireplace Inserts, and Water Heating.

The Energy Efficiency Program portfolio as a whole, achieved an estimated first year savings of 283,067 therms, exceeding both the 65,000 target and 97,825 stretch goal. The greatest therm savings were achieved by the installation of 1,334 high-efficient furnaces that contributed to 149,408 of the annual therm savings, while 619 ENERGY STAR certified homes contributed to 126,276 of the annual therm savings (see Figure 1). Therm saving contributions by other measures were modest due to various issues, such as availability in the marketplace and ambitious minimum efficiency requirements relative to industry standards.

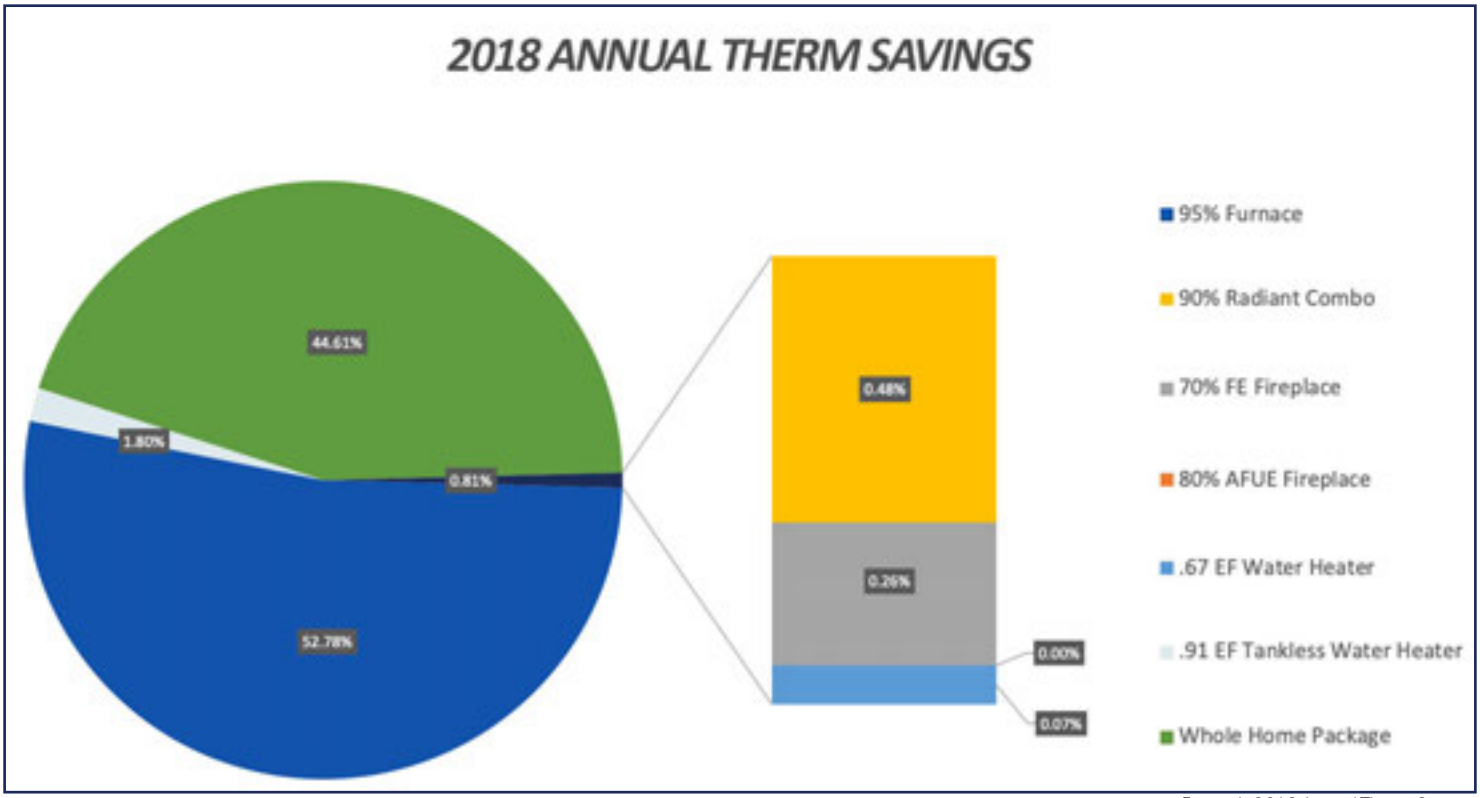


Figure 1. 2018 Annual Therm Savings

Intermountain Gas Company measured the cost-effectiveness of the energy efficiency portfolio based on two industry standard metrics: the UCT and the TRC. As a whole, the UCT for the program was 1.23, while the TRC ratio was 0.64. Although both metrics are commonly used for measuring cost-effectiveness, the Company relies more on the UCT because it measures the cost-effectiveness of items directly under the Company's control.

Avoided supply costs are one component of both the UTC and TRC cost test calculation. In future years, the EE program will be able to apply avoided costs that have been previously filed in an IRP. At the time of this report, IGC did not have filed avoided costs due to the fact the IRP will be submitted in Fall 2019. In the meantime, energy efficiency cost test calculations were based on preliminary avoided costs prepared for the 2019 IRP. See Supplement 1 for avoided costs.

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. The TRC measures cost-effectiveness from the customer's perspective and focuses on avoided supply costs, program administration costs and net participant costs. For both the UCT and TRC, a benefit to cost ratio of 1.0 or above indicates that the benefits have exceeded the costs, indicating the cost-effectiveness of the program.

Program Cost-Effectiveness			
Perspective	Benefits	Costs	Benefit/Cost Ratio
UCT	$ 1,838,122	$ 1,496,198	1.23
TRC	$ 1,838,122	$ 2,854,830	0.64

Table 2. Program Cost-effectiveness Ratios

Details regarding performance, cost-effectiveness, and lessons learned are all presented by individual measure in the following sections.

Space Heating Program

- $350 rebate for installation of a 95% AFUE (Annual Fuel Utilization Energy) or greater efficiency natural gas furnace
- $1,000 rebate for installation of a 90% or greater efficiency condensing tankless combination system for space and water heat

The 95% AFUE furnace program contributed the greatest portion of therm savings, with 149,408 annual therm savings and a total of 1,334 furnaces installed. This measure was cost-effective under the UCT with a 1.36 ratio but was not cost-effective under the TRC at 0.44.

The 90% AFUE Combination Radiant Heat System program provided the fourth highest therm savings at 1,353 annual therm savings and three measures installed. This measure had a UCT of 1.94, and TRC of 0.95.

Space Heating Program Results				
Measure	Measures Installed	Therm Savings	UCT	TRC
95% AFUE Natural Gas Furnace	1,334	149,408	1.36	0.44
90% AFUE Combination Radiant Heat System	3	1,353	1.94	0.95

Table 3. Space Heating Program Results

Lessons Learned – Space Heating Program

There were two items on the application form that regularly required additional explanation. These were the "heat loss calculation for the home" and the "furnace size installed" line items. Heat loss and heat load calculations, or Manual J, in HVAC design and sizing of equipment is an essential part of space heating efficiency. If the equipment is improperly sized, it will not achieve the labeled efficiency levels. To address the issue of proper HVAC design and sizing, the Idaho Division of Building Safety (DBS), instituted new plan review requirements for residential new construction effective in January 2019.

In order to prepare contractors to comply with the new plan review requirements, DBS conducted HVAC contractor meetings across the state. IGC joined DBS at the meetings that occurred in Intermoutain's service territory. At the top of the meeting, IGC was granted time to promote the EE Program and field questions about the program.

As a further step to prepare contractors for the upcoming changes, DBS also promoted a training course on residential HVAC design by software provider, Wrightsoft. One component of the course included a detailed review of heat load and heat loss calculation and equipment sizing. Since the heat load calculation and furnace sizing were among the most frequently asked questions about the rebate application, IGC capitalized on the opportunity to support the DBS effort to provide education on the new plan review requirements, specifically training on heat load calculations and equipment sizing.

Working directly with HVAC design course provider Wrightsoft, IGC offered a $50 course subsidy to HVAC contractors in the Company's service territory to offset the $320 course fee. Participants were required to register prior to attending the class, and verification of course completion was provided by the course provider, Wrightsoft. A total of ten contractors from across the IGC service territory took advantage of the course subsidy and completed the training course held in Idaho Falls.

Fireplace Insert Program

- $200 rebate for the installation of an 80% AFUE or greater natural gas fireplace insert
- $100 rebate for the installation of a 70% FE (Fireplace Efficiency) or greater natural gas fireplace insert

Unfortunately, there were no applications for 80% AFUE fireplace inserts during the 2018 program year, due mainly to the lack of availability of qualifying equipment. This program offering will be re-evaluated as a new program is developed.

The 70% FE Fireplace Insert program had a total of 728 annual therm savings, with 13 measures installed. The UCT was calculated at 2.17, and the TRC at 0.70.

Fireplace Insert Program Results				
Measure	Measures Installed	Therm Savings	UCT	TRC
80% AFUE Natural Gas Hearth (Fireplace)	-	-	-	-
70% FE Natural Gas Hearth (Fireplace)	13	728	2.17	0.70

Table 4. Fireplace Insert Program Results

Lessons Learned - Fireplace Insert Program

Fireplace insert efficiency ratings presented two challenges: availability and consistency. Fireplace inserts are typically designed for decorative purposes, but consumers often use them for space heating. Because fireplace inserts are designed to be decorative features, efficiency ratings receive little attention from consumers and manufacturers alike. In fact, finding the efficiency ratings of fireplace inserts required additional effort from the consumer, dealer, and Company since ratings were not readily available, either in marketing information or equipment specifications.

The second issue with fireplace efficiency ratings was the rating system itself. Frequently, fireplace manufacturers only refer to the steady state efficiency rating, which is a less reliable efficiency measurement when compared to the FE rating, because it does not take into consideration appliance cycling. Furthermore, the AFUE rating system does not accurately reflect the actual energy performance of gas fireplace inserts. Currently, the FE rating, which utilizes the Canadian Standards Association P.4. 1-02 testing methodology for capturing overall energy performance of gas fireplace inserts, appears to be the most accurate rating system.

To date, Intermountain is not aware of existing fireplace

inserts that meet the 80% AFUE efficiency criteria. The Company received feedback from both fireplace dealers and customers regarding the lack of availability of these units. The 80% AFUE fireplace was considered emerging technology when the program was designed and, unfortunately, never became available on the market. One explanation for lack of adoption is that an 80% AFUE efficiency rating requires the fireplace insert to be a condensing unit. The condensate produced by the high-efficient unit can itself be a barrier to adoption, as the location of the fireplace in the home often cannot accommodate a condensate line.

Water Heater Program

- $50 rebate for installation of a 0.67 EF or greater natural gas water heater
- $150 rebates for installation of a 0.91 EF or greater condensing tankless water heater

Of the rebate programs that had customer participation, the 0.67 EF Water Heater program had the least overall annual therm savings, with 198 therms saved and nine measures installed. For this tanked water heater measure, the UCT was 1.57 and the TRC was 0.30.

The 0.91 EF Condensing Tankless Water Heater program had the third highest annual therm savings at 5,104 and 88 measures installed. UCT and TRC calculated ratios were 1.56 and 0.23 respectively for the tankless water heater.

Water Heater Program Results				
Measure	Measures Installed	Therm Savings	UCT	TRC
.67 EF Natural Gas Hot Water Heater (with tank)	9	198	1.57	0.30
.91 EF Natural Gas Hot Water Heater (tankless)	88	5,104	1.56	0.23

Table 5. Water Heater Program Results

Lessons Learned - Water Heater Program

It should be noted that, at the time the water heater program was designed, water heater efficiency was measured using the Energy Factor (EF), as noted in the IGC tariff. The Department of Energy developed a new metric for communicating the energy efficiency of water heaters, the Uniform Energy Factor (UEF), effective June 2017. The EE Program accepted both EF and UEF rated water heaters meeting minimum efficiency to accommodate existing EF rated stock as the industry moves to the new UEF rating.

Informal conversations with home builders and HVAC contractors suggest that the standard tanked water heater currently being installed is around 0.59 EF. While the 0.67 EF tanked water heater was readily available in the market, it is significantly more expensive and several efficiency levels up from the standard model. The current rebate level was not enough to incent customers to spend the extra money required to reach the 0.67 EF level. Further study is required to find the right incentive level for this appliance.

Anecdotal conversations revealed various levels of satisfaction with tankless water heater performance, as well as lack of general knowledge about tankless water heaters. These conversations present potential educational opportunities for customers and contractors alike.

Whole Home Program

• $1,200 rebate for residential ENERGY STAR certified new construction with a HERS score of 75 or lower

The Whole Home program was the second highest therm saving measure, with 126,276 annual therms saved and 619 measures installed. These 619 ENERGY STAR homes were built by 18 builders and had an average HERS score of 61. The UCT calculated was 1.13 and the TRC was 1.17.

Whole Home Program Results				
Measure	Measures Installed	Annual Therm Savings	UCT	TRC
Energy Star Certified Homes	619	126,276	1.13	1.17

Table 6. Whole Home Program Results

Figure 2 below shows the distribution of HERS scores for ENERGY STAR certified homes in 2018. The HERS score is like a golf score, the lower the score the more energy efficient the home.

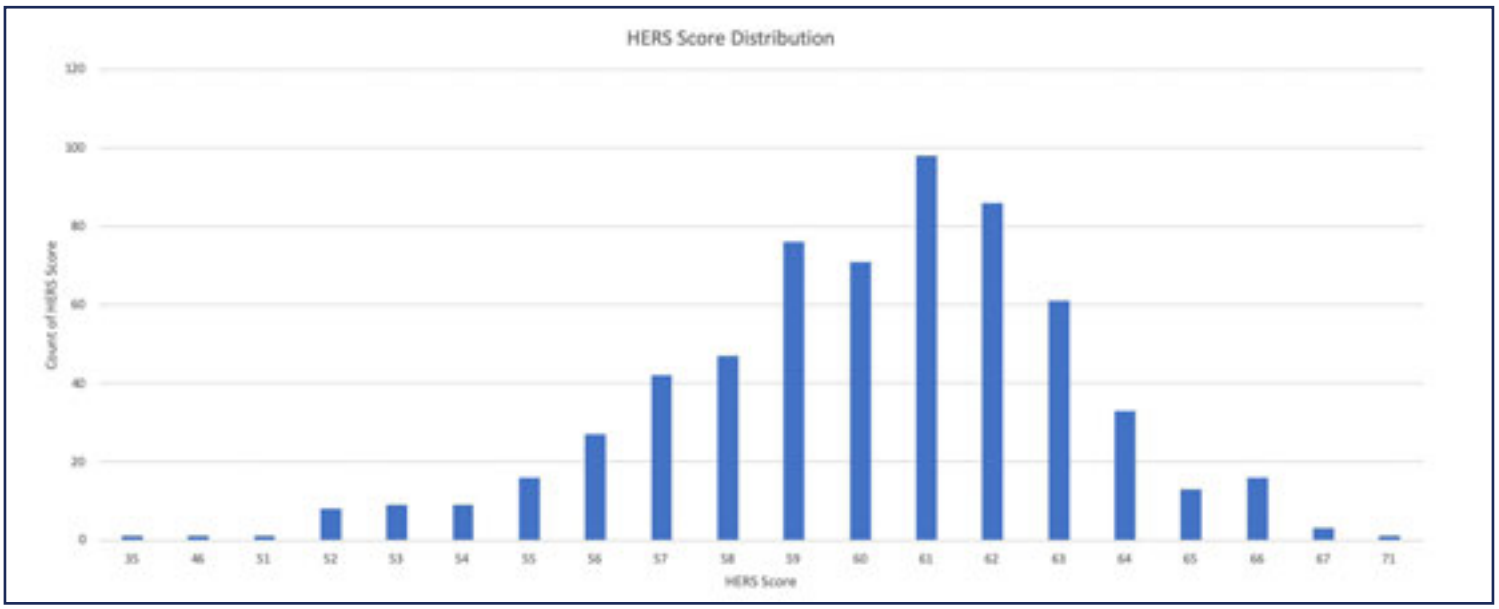


Figure 2. HERS Score Distribution

Lessons Learned - Whole Home Program

While ENERGY STAR is one of the most recognized consumer brands, the implementation of this measure presented many educational opportunities around home energy efficiency in general. When Intermountain began the EE Program, there were less than 5 builders in IGC's service territory building ENERGY STAR certified homes. Through outreach and education, Intermountain was able to increase that number of builders to 18. This market transforming success has been a high point for the program thus far.

18
ENERGY STAR builders

61
Average HERS score

Personal conversations revealed that builders often equate quality with efficiency. It is important to differentiate these two home attributes when promoting home energy efficiency. Based on the inputs that make a home energy efficient, it is likely that an energy efficient home, is also a quality home. Conversely, a quality home may not necessarily be an energy efficient home.

Affordability is another misconception when it comes to home energy efficiency. Many consumers falsely assume that measures, like ENERGY STAR certification, are only applicable or affordable for homes at a higher price point. IGC focused home energy efficiency education and awareness on the savings benefit of keeping long term home operations affordable, regardless of the home's cost.

Finally, IGC focused on easy ways for the consumer to understand and recognize "the real deal," when it comes to home energy efficiency certification. Intermountain's ENERGY STAR certified home promotions directed customers to "Look for the Label," which is the little blue label affixed to the breaker box when a home is ENERGY STAR certified. Another important aspect of home energy efficiency education emphasized the difference between modeled homes (energy efficient design in the blueprint phase) and verified homes (performance testing of completed homes by a certified home energy rater.) Consumers were encouraged to visit the publicly available RESNET (Residential Energy Services Network) database to check HERS scores as a means of confirming a home has been certified.

While the question, "What exactly is ENERGY STAR certified?" was a universal question from builders throughout the service territory, different regions experienced unique challenges. ENERGY STAR certification requires the builder to use an ENERGY STAR credentialed HVAC contractor. Implementation of the program revealed there is a shortage of ENERGY STAR credentialed contractors within the Intermountain Gas Company service territory, specifically in the Magic Valley and Pocatello areas. There was also a scarcity of home energy raters in these same regions. Both are essential to ENERGY STAR certification and HERS scoring. Figure 4 illustrates the geographical distribution of the Whole Home rebates across the Company's regional districts.

While builder demand for credentialed contractors will provide a natural market pull and business opportunity for HVAC contactors to become credentialed, IGC has also taken steps to make credentialing opportunities for HVAC contractors more accessible and affordable in 2019.

Figure 3. ENERGY STAR Blue Label

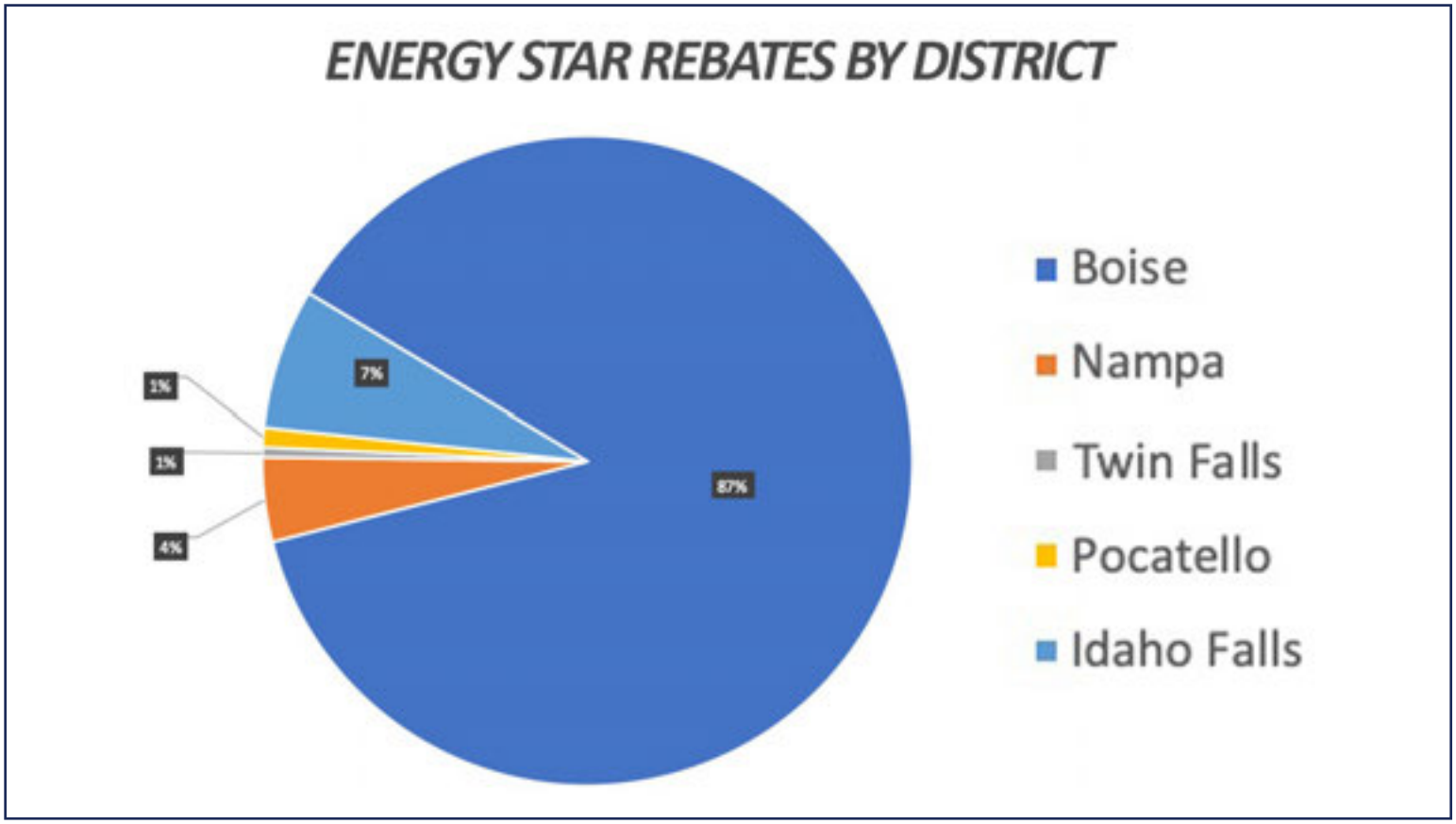


Figure 4. ENERGY STAR Rebates by District

Intermountain Gas Company
Program Outreach, Awareness, and Education
2018

To launch the EE Program, IGC focused on three major groups for outreach and education: customers, which included the community at large, contractors (both home energy raters and HVAC contractors) and home builders. A variety of approaches were used to reach these three target groups. The following outlines strategies utilized by Intermountain to raise awareness about the EE Program.

All Sectors:

To introduce the program, brochures were provided as a bill insert (Figures 5 below and 6 on opposite page). On-line bill payers received a digital version of the same insert. Two bill inserts were mailed to customers, one in March 2018 and another in November 2018. The March bill insert was a general EE Program brochure outlining the entire program offering, including minimum required efficiencies and related rebate amounts. In November, customers received a bill insert which included energy saving "pro tips" with associated rebate offerings and directed customers to visit the EE Program's "Save Energy" website for more information.

Figure 5. November Bill Insert

ENERGY CONSERVATION TIPS

Get the most from your hard-earned money! Here are some simple tips that require little to no investment and will help save money.

- Adjust thermostats: Set your thermostat to your personal comfort zone and when you are away from home, reduce the temperature by 5-8 degrees Fahrenheit. For homes with elderly people or children, warmer temperatures are recommended.
- Install a programmable set-back thermostat to do the work for you.
- Clean or change your furnace filters monthly during the heating season.
- Set your water heater temperature to 120°F.
- Wash clothes in cold water.
- Close drapes and blinds at night in winter to insulate against cold air.
- Reduce heat loss by sealing drafts in windows or doors with weather stripping or caulk.
- Install water flow restrictors in faucets and shower heads.
- Install tempered glass doors on fireplaces.
- Close dampers on fireplaces when not in use.

HAVE QUESTIONS?

CONTACT OUR ENERGY EFFICIENCY DEPARTMENT

saveenergy@intgas.com
208-377-6840—Treasure Valley
1-800-548-3679—All other areas

INTERMOUNTAIN® GAS COMPANY
A Subsidiary of MDU Resources Group, Inc.
In the Community to Serve®

2/18

Figure 6. March Bill Insert

ENERGY EFFICIENCY PROGRAM

When it comes to saving energy and conserving resources for the future, Intermountain Gas wants to partner with you by offering rebates for installing high-efficiency equipment in your home. Whether you are upgrading from a less efficient natural gas appliance, converting to natural gas from a more expensive energy source, or preparing to build the home of your dreams, we are here to help!

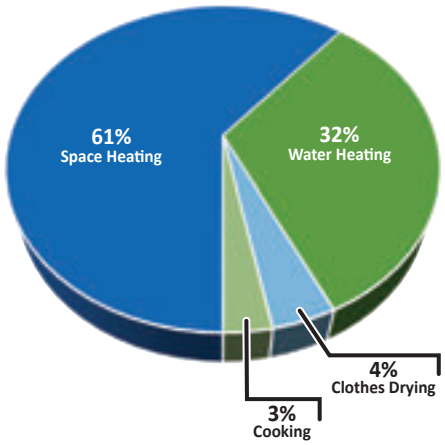
WHOLE HOME REBATE

Consider building an ENERGY STAR® home that uses natural gas for space and water heating.

ENERGY STAR® Verified homes with a Home Energy Rating Score (HERS®) of 75 or less are eligible for a $1,200 rebate.

HOME ENERGY USAGE

The energy dollar in a typical northwestern home is divided as follows:



AVAILABLE EQUIPMENT REBATES

Eligible Appliance*	Rebate
95% AFUE Natural Gas Furnace	$350
90% Efficiency Combo Radiant System	$1,000
80% AFUE Natural Gas Fireplace Insert	$200
70% FE Natural Gas Fireplace Insert	$100
.67 EF/ .68 UEF Natural Gas Water Heater	$50
.91 EF/ .92 UEF Condensing Tankless Water Heater	$150

*Minimum Efficiency

ELIGIBILITY REQUIREMENTS

- Available only to new or existing residential customers of Intermountain Gas Company.
- Fuel for home's heat and water heating needs must be exclusively provide by Intermountain Gas.
- Equipment must be installed according to current code and approved by local or state inspection.
- Eligible equipment must meet current requirements of Intermountain Gas' "EE Rebate Program" tariff as approved by the Idaho Public Utilities Commission.
- See our website for complete terms and conditions.

intgas.com/saveenergy

Efficient. Clean. Reliable. Domestic.

A new energy efficiency section was integrated into the Company website, and an energy efficiency dedicated web address, www.intgas.com/saveenergy, was created (Figures 7, 8, and 9 below). Webpages consisted of an energy efficiency tips page, as well as individual pages dedicated to the two respective program categories: Appliances and Whole Home. The pages also included a downloadable rebate application, brochure, and complete program terms and conditions.

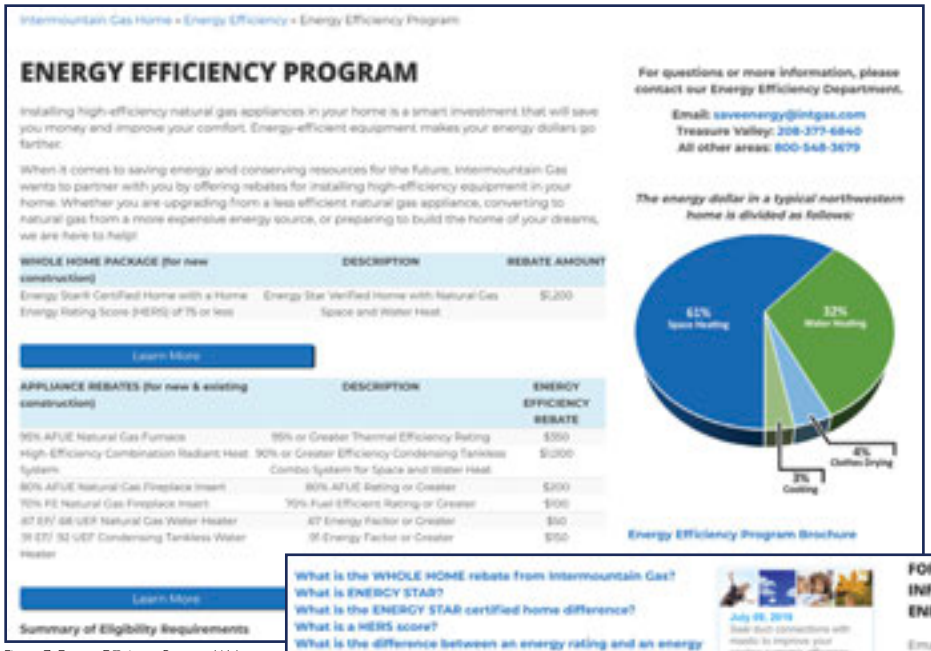


Figure 7. Energy Efficiency Program Webpage

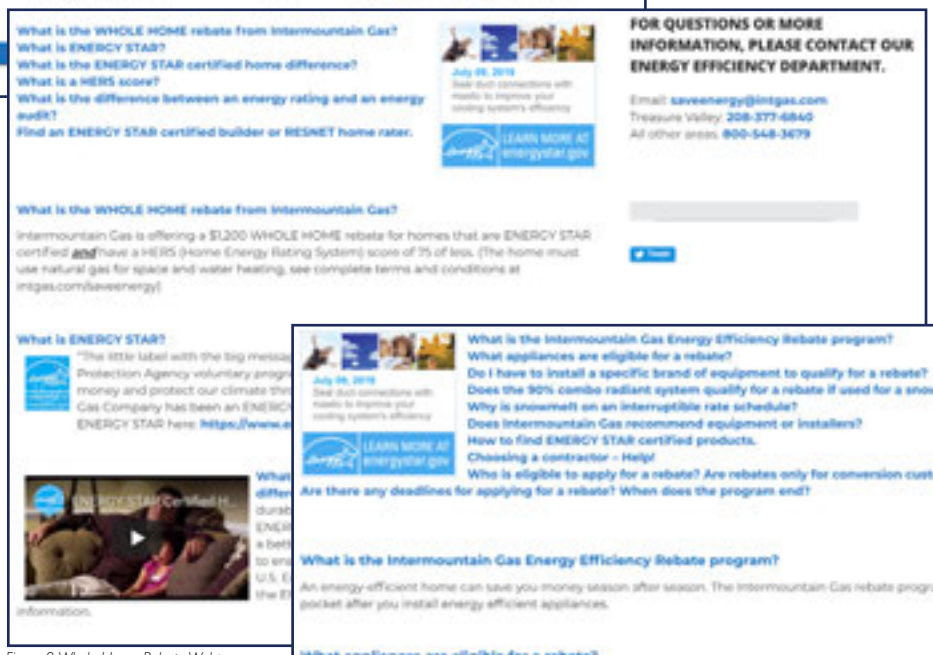


Figure 8. Whole Home Rebate Webpage

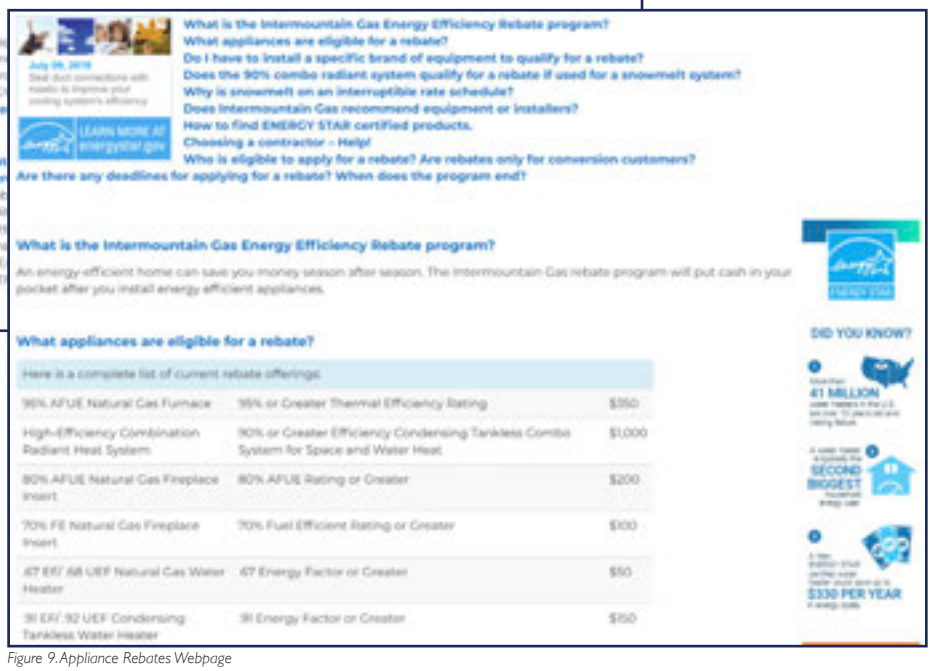


Figure 9. Appliance Rebates Webpage

IGC also promoted the program using social media, including Facebook, Instagram, Twitter, and YouTube (see Figure 10 below). Social media outreach efforts focused on energy efficiency tips, program promotion and education. Posts highlighted customers receiving their rebate checks and information about related rebates, home energy efficiency features on ENERGY STAR certified homes, and opportunities to visit ENERGY STAR certified homes. The EE Program was also recognized on social media by home builders for promoting ENERGY STAR, and by RESNET, the national standards making body for building energy efficiency, for the WHOLE HOME new construction rebate requiring a HERS score.

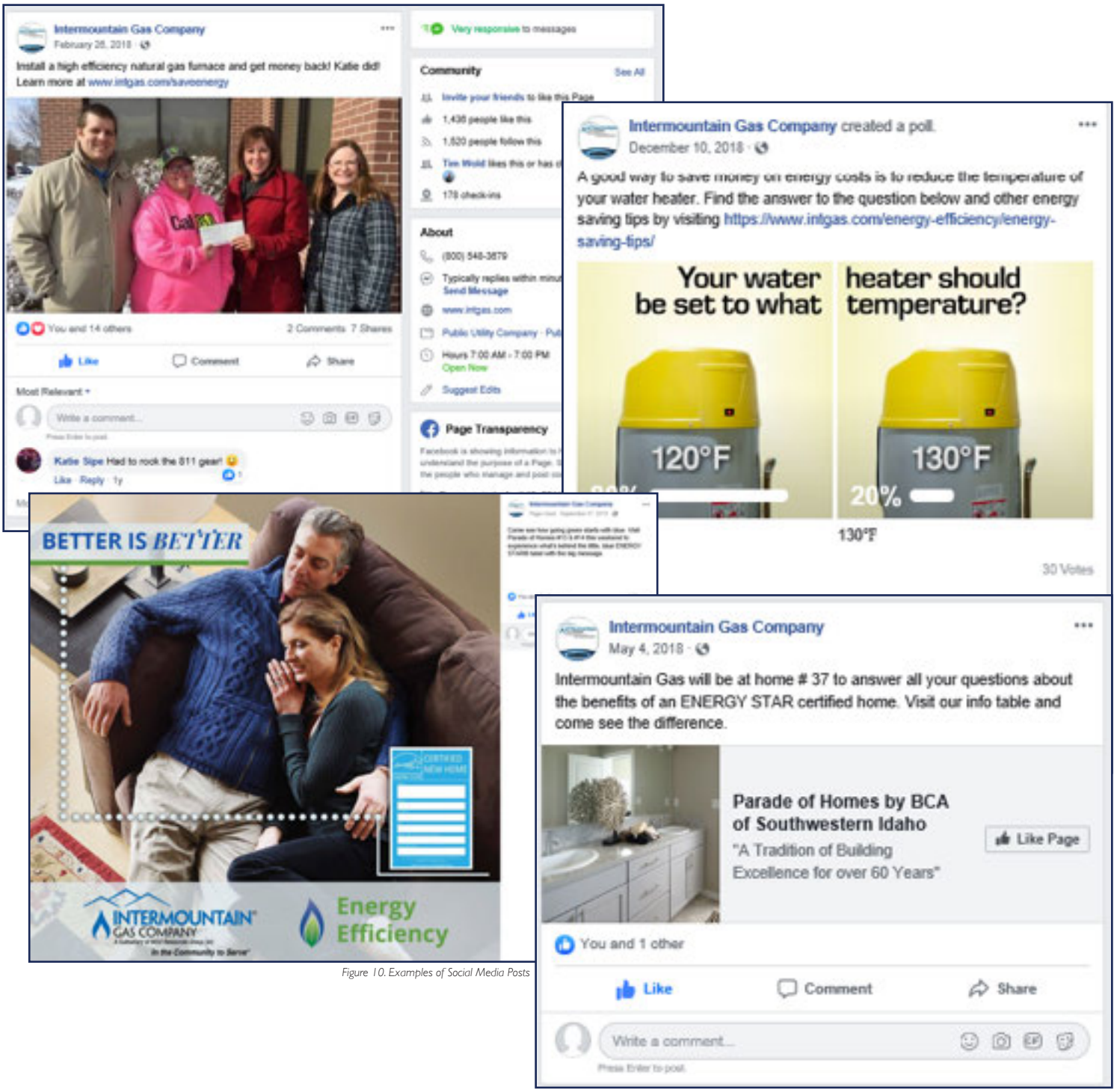


Figure 10. Examples of Social Media Posts

Outreach efforts to the community included promoting energy efficiency rebates at trade show booths, events such as Buy Idaho at the Capitol, home and garden shows, and remodel shows. IGC participated in trade shows throughout the Company's service territory and targeted various audiences including the general public, environmental audiences, youth, and low income.

To raise awareness of the introduction of an energy efficiency program, IGC also targeted outreach efforts with specific industry related conferences and shows, such as the annual ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) conference and the American Institute of Architects Idaho Chapter.

Additionally, IGC reached out to the business community by hosting information booths at events with the City of Meridian, Boise Valley Economic Partnership, the Boise Metro Chamber of Commerce, and the Greater Pocatello Association of Realtors.

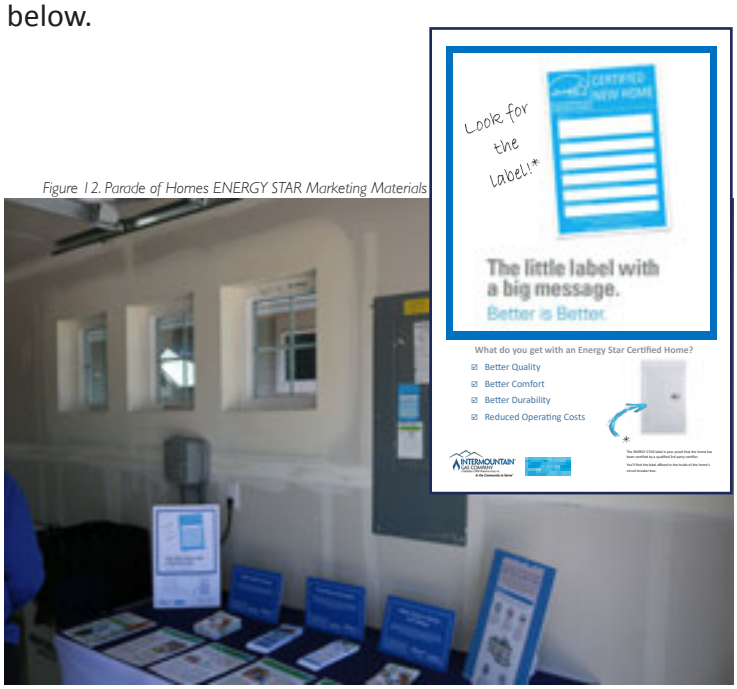
Figure 11. Trade Show Booth

Home Builders

IGC leveraged existing memberships with regional Building Contractor Associations (BCA) to promote the Whole Home rebate program with the home building community, as well as related home building industries, such as realtors, HVAC contractors, home mortgage providers, and appraisers. Typical builder outreach efforts included title sponsorships of general membership meetings, which included podium time, and exclusive opportunities to distribute marketing materials, or host information tables at general membership meetings. The Company also promoted the rebate program at BCA builder's expo events, which are designed to showcase products and promotions exclusively to Parade of Homes builders. This is typically a mandatory event for Parade of Home builders.

The Parade of Homes, sponsored by regional BCAs, provided a particularly effective outreach strategy with both builders and community members at large. Intermountain offered additional promotional opportunities to builders whose homes earned the IGC Whole Home rebate. This included showcasing ENERGY STAR and HERS marketing materials at the home, hosting an information table in the home, and offering a raffle opportunity to visitors to the ENERGY STAR certified home. To highlight the energy efficiency of the home, the raffle entry form was designed as a home energy efficiency quiz. The Company also ran a Facebook awareness campaign encouraging followers to visit ENERGY STAR homes to "see the ENERGY STAR difference" by highlighting home energy efficiency benefits. IGC also provided co-branded ENERGY STAR marketing materials to assist in educating and raising awareness about home energy efficiency, as pictured below.

Figure 12. Parade of Homes ENERGY STAR Marketing Materials



IGC took advantage of another event related to the Parade of Homes to reach out to realtors. Each BCA hosted a parade tour bus, which visited each home in the parade. The tour is a ticketed event that is primarily attended by realtors, builders, and BCA members. Intermountain participated as co-host, in partnership with the builder, for tour visitors at an ENERGY STAR certified home and provided energy efficiency promotional materials.

A key part of the Parade of Homes promotion focused on raising awareness about the authenticity of home energy efficiency claims. Parade of Homes visitors were encouraged to "Look for the Label," the ENERGY STAR label affixed to the breaker box once a home has been verified by an independent, third party. Since the WHOLE HOME rebate requires a home to be both ENERGY STAR certified and earn a HERS score of 75 or less, the campaign also highlighted the meaning and significance of a HERS score as a measure of home energy efficiency performance. To clarify the difference between modeling and certification, IGC encouraged builders and parade visitors alike to visit the publicly available RESNET national database of HERS scored homes.

While Parade of Homes was effective in reaching parade builders and parade visitors, outreach to builders who may not participate in the Parade of Homes required a more creative and customized outreach approach. After being advised to "go where they go…the golf course", IGC went to golf course events high in builder attendance. Each BCA hosts at least one golf tournament per year. As an active hole sponsor at the golf tournament, Intermountain was able to promote the EE Program to each team participating in the tournament. IGC hosted a golf game called the "efficiency hole". Golf teams were timed from tee off to hole out, competing for the title of "most efficient team"; determined by the fastest time, thereby proving their "efficiency". The few minutes of one-on-one face time with home builders proved extremely beneficial in raising awareness about both the Appliance and Whole Home rebate incentive.

Figure 13. Energy Efficiency Hole

Contractors

The initial launch of the EE Program was introduced to contractors through a mail campaign. Program brochures were mailed to HVAC contractors throughout the Company's service territory. Individual visits with contractors (sales teams, installers, and new construction specialists) also provided opportunities to promote the program, answer questions and collect feedback from contractors.

IGC participated in a joint meeting with Rocky Mountain Power's EE Program (RMP) for HVAC contractors. Together, IGC and RMP promoted their respective program offerings, specifically the opportunity for customers in the overlapping IGC and RMP territories to take advantage of IGC's $350 high-efficient furnace rebate in combination with the RMP $200 high efficiency furnace with Electronically Commutated Motor (ECM) rebate. The combined incentives allowed customers to maximize both incentives and energy savings, encouraging increased participation in both programs.

Home Energy Raters

Brochures about the EE Program were also mailed to home energy raters in Intermountain's service territory. Several personal meetings were conducted with home energy raters to explain IGC's rebate program, and for the Company to better understand general home energy rating processes, the builder perspective, and common hurdles to building an ENERGY STAR certified home. Home energy raters have been great partners in raising awareness about the EE Program and answering specific builder questions in "builder speak." Raters are best able to identify how builders need to change the build process in order to qualify for the program.

Special Partnership Project - Boise Valley Habitat for Humanity

To help both consumers and home builders better understand the energy efficiency benefits of an ENERGY STAR certified home, IGC entered into a special project with Boise Valley Habitat for Humanity (BVHFH). What started as a conversation about the appliance rebate program quickly evolved into a discussion about the energy efficiency measures BVHFH was incorporating into their everyday building practices. Further conversations revealed an opportunity for IGC to partner with BVHFH and to highlight their mission to provide affordable housing, while also raising awareness of the role energy efficiency plays in keeping long term home operations affordable.

Someone aptly commented that an energy efficient home, "looks like any other house". Since so much of what makes a home energy efficient takes place during the build process, IGC sought a way to bring customers to the build site, without actually bringing them to the build site. Through the partnership with BVHFH, Intermountain was granted permission to video document the build process of the first BVHFH ENERGY STAR certified home. The educational videos are focused around the five main feature and benefit categories of an ENERGY STAR certified home:

- high efficiency heating and cooling
- complete thermal enclosure
- water protection
- efficient lighting and appliances
- independent inspections and testing

The videos capture the many ENERGY STAR attributes that can only be seen during the active build process. Short video segments were released in an on-going ENERGY STAR certified home awareness campaign on Facebook. The completed videos live on a dedicated page in the EE Program website, "The ENERGY STAR Difference," as a resource for all to reference. Videos highlighting different aspects of the build related to ENERGY STAR certification, were released as they occurred in the real-time build process.

Figure 14. The ENERGY STAR Difference

IGC and BVHFH also joined forces with DBS Manager, Jerry Peterson, to produce an instructional video on proper air sealing. Air sealing is one of the most effective energy saving measures that does not require additional investment of time or materials, when proper technique is used. At the critical time of air sealing in the build, BVHFH allowed Jerry Peterson to use the Habitat home for a live instructional demo that was captured on video for future educational purposes.

The IGC/BVHFH partnership was launched with an official groundbreaking that included the Mayor of Meridian, the Meridian Chamber, and leadership of IGC and BVHFH, Figure 15 below. Completion of BVHFH's first ENERGY STAR certified home will be celebrated with an official ribbon cutting ceremony to coincide with Earth Day 2019. For the first time in BVHFH history, BVHFH will allow the community to tour the home. This will provide an opportunity for the community to view, not only a Habitat for Humanity home, but an ENERGY STAR certified home. Like the Parade of Homes promotion, IGC will highlight the ENERGY STAR features and HERS score of the home, as well as the role of energy efficiency in comfort, affordability and energy savings.

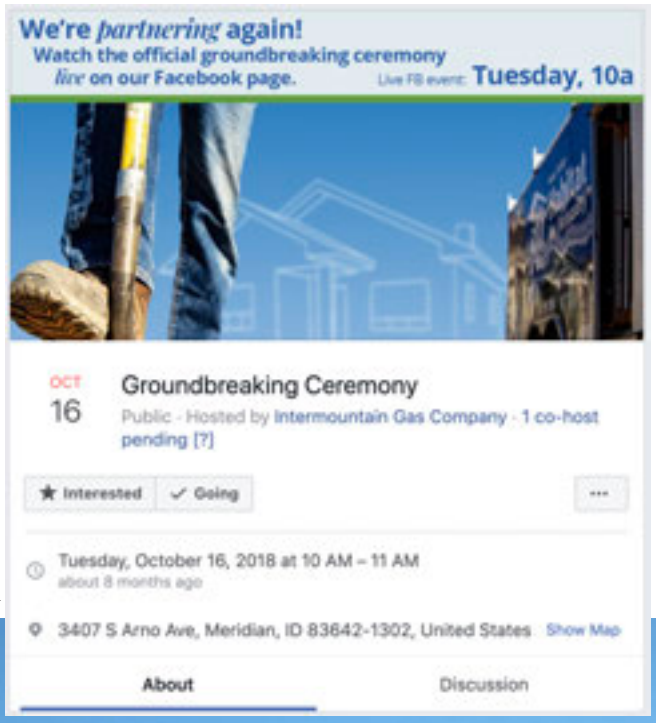
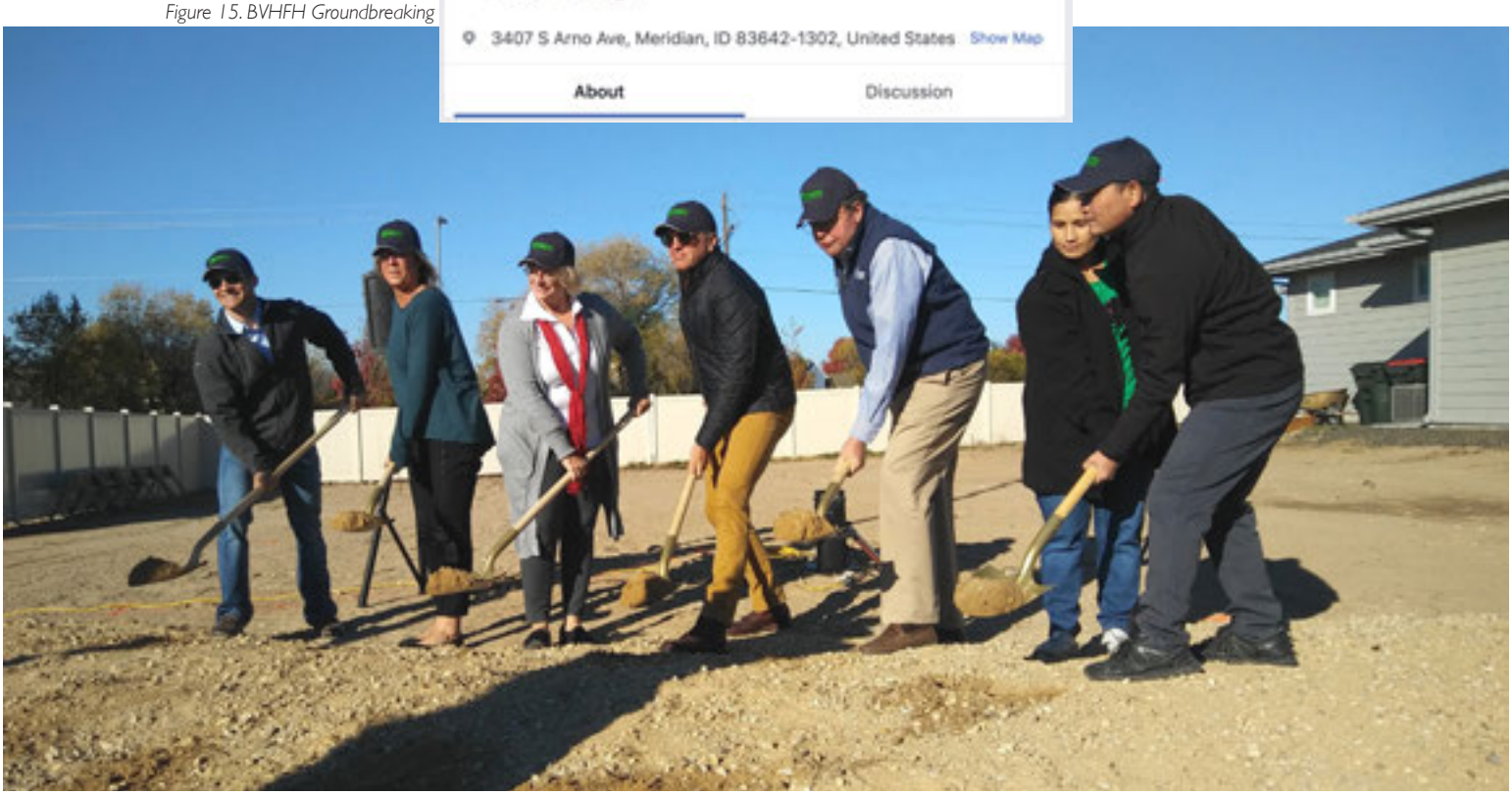


Figure 15. BVHFH Groundbreaking



IGC also coordinated volunteer build days at the BVHFH ENERGY STAR home. The Building Contractors Association of Southwest Idaho (BCASWI) assembled a build team that volunteered their time and talents to help build the BVHFH home. Orientation meetings for build teams provided an opportunity to explain the role of home energy efficiency in keeping long term home operations affordable, and specifically, the ENERGY STAR difference in building processes.

Figure 16. BVHFH Build Volunteers

Stakeholder Input

IGC Energy Efficiency hosted a meeting in November 2018 to provide an update about the program and an opportunity for stakeholders to provide feedback. IGC reviewed program design, the budget and collection mechanism, common terms, and the cost-effectiveness tests that would be applied to program tracking.

The meeting discussion covered information on rebates paid out by measure for the first three quarters of the year, as well as budget balances. A review of education and awareness activities was also provided, along with lessons learned, and IGC's observed successes and challenges around outreach strategies.

Participants of the program provided positive feedback and suggestions for future changes or considerations. Participants like the straightforwardness of rebate qualifications and ease of use of the rebate application. Home energy raters identified the lack of credentialed HVAC contractors as a roadblock to builder participation in the Whole Home rebate program. Participants asked about the potential for the development of a trade ally program for contractors, and a seasonal newsletter. It was also suggested that general home maintenance may be a potential outreach opportunity for first-time homeowners, as upkeep can have an impact on home energy efficiency. IGC agreed to consider all suggestions for future program development and promotions.

The Future

The Company intentionally designed the initial offerings of the EE Program to provide cost-effective offerings that would be less complicated to ramp up and promote. With the program under way, IGC prepared for the next phase of the program by securing a third-party consultant to conduct the first CPA.

In April of 2018, IGC sent an RFP to 30 companies. Intermountain received 6 proposals and interviewed 3 companies. Dunsky Energy Consultants were selected to conduct Intermountain's first CPA. The completed project will be a tool for EE Program planning and provide energy saving inputs to the Integrated Resource Plan. The CPA will review the commercial market, as well as the residential market which will provide the foundation for the eventual launch of commercial program offerings for Intermountain's EE Program. The estimated project completion is June 2019.

In addition to the CPA study, in the Fall of 2019, IGC will solicit an RFP for an evaluation, measurement and verification (EM&V) study to assess the performance of energy efficiency activities and assure the certainty and effectiveness of future activities.

ENERGY EFFICIENCY

INTERMOUNTAIN® GAS COMPANY
A Subsidiary of MDU Resources Group, Inc.

NUMBER OF REBATE APPLICATIONS PROCESSED: **2,406**

LARGEST REBATE CATEGORY: HIGH-EFFICIENT FURNACES AT **53%** OF ALL REBATES

33 YEARS OLD: THE AVERAGE AGE OF HOMES REPLACING EQUIPMENT (BUILT IN 1986)

THERMS SAVED: **283,067** - ENOUGH FOR 386 HOMES (BASED ON AVERAGE ANNUAL USAGE OF 732 THERMS)

NUMBER OF WHOLE HOME REBATES FOR NEW HOME CONSTRUCTION:

- **619** ENERGY STAR CERTIFIED HOMES WITH A HERS SCORE OF 75 OF LESS
- **18** DIFFERENT ENERGY STAR CERTIFIED BUILDERS
- AVERAGE HERS SCORE OF IGC REBATED HOMES: **61**