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IDAHO PUBLIC PTILITIES COMMISSION

January 27, 2020

Ms. Diane Hanian Commission Secretary Idaho Public Utilities Commission P.O. Box 83720 Boise, ID 83720-0074

RE: Case No. INT-G-20-01

Dear Ms. Hanian:

Attached for consideration by this Commission are the original and seven (7) copies of Intermountain Gas Company's Application for Authority to Revise its General Service Provisions Related to the Installation and Extension of Natural Gas Mains and Services.

If you should have any questions regarding the attached, please don't hesitate to contact me at (208) 377-6015.

Sincerely,

Lori A. Blattner

Director, Regulatory Affairs Intermountain Gas Company

Enclosure

cc:

Mark Chiles Preston Carter

# INTERMOUNTAIN GAS COMPANY

**CASE NO. INT-G-20-01** 

APPLICATION
AND
EXHIBITS

In the Matter of the Application of INTERMOUNTAIN GAS COMPANY for Authority to Revise its General Service Provisions Related to the Installation and Extension of Natural Gas Mains and Services Preston N. Carter, ISB No. 8462 Givens Pursley LLP

601 W. Bannock St. Boise, Idaho 83702

Telephone: (208) 388-1200

Attorneys for Intermountain Gas Company

#### BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

In the Matter of the Application of INTERMOUNTAIN GAS COMPANY for Authority to Revise its General Service Provisions Related to the Installation and Extension of Natural Gas Mains and Services

Case No. INT-G-20-01 APPLICATION

Intermountain Gas Company ("Intermountain" or "Company"), a subsidiary of MDU Resources Group, Inc. with general offices located at 555 South Cole Road, Boise, Idaho, pursuant to the Rules of Procedure of the Idaho Public Utilities Commission ("Commission"), requests authority, pursuant to Idaho Code Sections 61-307 and 61-622, to revise its General Service Provisions related to the installation and extension of natural gas mains and services ("Line Extension"). Exhibit No. 1 shows the proposed changes to General Service Provisions Section C as well as affected pages of General Service Provisions Section A and is attached and incorporated by reference. The resulting proposed tariffs are attached as Exhibit No. 2 and incorporated by reference.

Please address communications regarding this Application to:

Lori A. Blattner
Director – Regulatory Affairs
Intermountain Gas Company
Post Office Box 7608
Boise, Idaho 83707
Lori.Blattner@intgas.com

and

Preston N. Carter Givens Pursley LLP 601 W. Bannock St. Boise, Idaho 83702 pnc@givenspursley.com kendrah@givenspursley.com

In support of this Application, Intermountain alleges and states as follows:

#### I. INTRODUCTION

Intermountain is a gas utility, subject to the jurisdiction of the Commission, engaged in the sale of and distribution of natural gas within the State of Idaho under authority of Commission Certificate No. 219, issued December 2, 1955, as amended and supplemented by Order No. 6564, dated October 3, 1962.

Intermountain provides natural gas service to the following Idaho communities and counties and adjoining areas:

Ada County - Boise, Eagle, Garden City, Kuna, Meridian, and Star;

Bannock County - Arimo, Chubbuck, Inkom, Lava Hot Springs, McCammon, and Pocatello;

Bear Lake County - Georgetown, and Montpelier;

Bingham County - Aberdeen, Basalt, Blackfoot, Firth, Fort Hall, Moreland/Riverside, and Shelley;

Blaine County - Bellevue, Hailey, Ketchum, and Sun Valley;

Bonneville County - Ammon, Idaho Falls, Iona, and Ucon;

Canyon County - Caldwell, Greenleaf, Middleton, Nampa, Parma, and Wilder;

Caribou County - Bancroft, Grace, and Soda Springs;

Cassia County - Burley, Declo, Malta, and Raft River;

Elmore County - Glenns Ferry, Hammett, and Mountain Home;

Fremont County - Parker, and St. Anthony;

Gem County - Emmett;

Gooding County - Bliss, Gooding, and Wendell;

Jefferson County - Lewisville, Menan, Rigby, and Ririe;

Jerome County - Jerome;

Lincoln County - Shoshone;

Madison County - Rexburg, and Sugar City;

Minidoka County - Heyburn, Paul, and Rupert;

Owyhee County - Bruneau, Marsing, and Homedale;

Payette County - Fruitland, New Plymouth, and Payette;

Power County - American Falls;

Twin Falls County - Buhl, Filer, Hansen, Kimberly, Murtaugh, and Twin Falls;

Washington County - Weiser.

Intermountain's properties in these locations consist of transmission pipelines, liquefied natural gas storage facilities, a compressor station, distribution mains, services, meters and regulators, and general plant and equipment.

#### II. BACKGROUND

In Order No. 33757, issued in Case No. INT-G-16-02, the Commission found it "reasonable and appropriate for the Company to update its line extension tariffs to reflect the ROR approved in this case." The Commission also found that "the updated tariff should accurately reflect the extent to which customer contributions associated with line extensions depend on ROR." Finally, they encouraged Intermountain "to modify its line extension policy as soon as possible to address changes in references, rules and vested interest policy." *Id.* at 39

Following receipt of the Order, Intermountain began a collaborative process with Staff to update and make more transparent its Line Extension tariff. The process began with a meeting in December 2017 to determine the scope of the update and adjustments that could be made to improve the tariff.

The intervening two-year period has included a number of subsequent meetings regarding the inputs and calculation methods of the Company's Line Extension tariff. Although the collaborative process with Staff has taken longer than anticipated by the Order, Intermountain believes it has resulted in a better, more transparent policy. If the Company's proposal is accepted, the current version of Intermountain's General Service Provisions Section C would be completely replaced as illustrated in Exhibit No. 1. Additionally, Intermountain's General Service Provisions Section A would be updated to refer the reader to Section C.

#### III. ALLOWABLE INVESTMENT

The Company is proposing the use of an embedded cost methodology approach to calculating the Allowable Investment for residential and commercial line extension projects. This method will help to ensure that the investment in gas facilities for each new customer will be similar to the embedded costs of the same facilities for existing customers that are reflected in the Company's approved base rates. Any costs in excess of the Allowable Investment would be paid by the customer as a customer advance.

In the Company's proposed tariff, a calculation of the estimated therm usage for a home is the first step in calculating the Allowable Investment. To determine the estimated annual space heating usage based on the square footage of a home in the Company's service territory, Intermountain commissioned a study by Musgrove Engineering, P.A. The Musgrove Engineering study is attached as Exhibit No. 3 and incorporated by reference. The resulting square foot factor of 0.234 is multiplied by the square footage of the home to arrive at the annual space heating therm usage estimate. Therm usage estimates for additional natural gas appliances to be utilized in the home are then added to the space heating therm usage estimate to calculate the total estimated therm usage per year.

Because commercial projects can be variable in size, business type and building use, the Company proposes to determine therm usage estimates for commercial projects on a case-by-case basis. The estimate would be based on the climate zone, the heated structure square footage, commercial property type, and applicable gas appliances.

To arrive at the Allowable Investment, the Company values the estimated annual therm usage by applying the proposed Allowable Investment Factor to the estimated annual therm usage.

The calculation of the proposed Residential and Commercial Line Extension Allowable Investment Factors is shown in Exhibit No. 4, which is attached and incorporated by reference.

As detailed on Exhibit No. 4, Page 1, Line 7, Intermountain calculated the embedded cost per therm of applicable service and main FERC accounts from its most recent general rate case, Case No. INT-G-16-02. To adjust for inflation since Case No. INT-G-16-02, the Company applied an inflation factor to these embedded costs. The inflation factor helps to ensure that new applicants are treated the same as existing customers in terms of the amount of facilities their Allowable Investment will cover.

Using the inflation adjusted embedded service and main costs per therm, the weighted asset lives of the relevant distribution plant accounts, and the Company's approved weighted average cost of capital, the Company calculated the per therm service and main Allowable Investment Factors.

As stated above, these Allowable Investment Factors found on Exhibit No. 4, Lines 17 and 38 are applied to the total estimated annual therm usage to derive the Allowable Investment.

#### IV. PROJECT COST

To determine the project costs related to the installation of a service line, the Company proposes multiplying the on-property Service Line length by the Service Line Cost per Foot. The Service Line Cost per Foot is derived by calculating a three-year average of service line costs divided by the feet installed during the same years as illustrated on Exhibit No. 5. Exhibit No. 5 is attached and incorporated by reference.

The project cost estimate for a Main extension is calculated by estimating the costs of the gas facilities required to serve the gas load of the requesting applicant. Included in the project cost estimate will be Construction Overhead charges.

The difference between the Allowable Investment and the Project Cost is the cost of the line extension project that the applicant must pay prior to construction through a customer advance.

#### V. ANNUAL UPDATE

Intermountain anticipates filing an annual tariff advice to update the Allowable Investment Factors, the Service Line Cost per Foot, and the Construction Overhead Charge.

#### VI. VESTED INTEREST

In the event a customer makes a payment for Project Costs in excess of the Allowable Investment for Mains, Intermountain proposes that they would be eligible for a vested interest refund for up to 5 years from the date of installation. If a Service Point not used in the original calculation connects to the Main extension within that five-year period, the Company would refund to the original applicant or developer the equivalent of the Allowable Investment for Mains for each additional Service Point, not to exceed the original upfront payment.

#### VII. REFUNDS

Because of the amount of time that has elapsed between the reduction of Intermountain's ROR in Case No. INT-G-16-02 and the filing of this case, the Company proposes that refunds be issued, when appropriate, to applicants that have paid a customer advance between the May 1, 2017 effective date of Order No. 33757 and the effective date of the Order in this case. Intermountain proposes to calculate the refunds by comparing the original project and resulting Allowable Investment to the method outlined in this case. If that calculation shows the customer advance paid under the previous tariff was higher than the customer advance would have been under this proposed tariff, the difference (less any refunds already remitted) would be refunded to the customer. In no case would this refund be for more than the actual amount paid by the customer.

#### VIII. IMPACT

The impact to customers of the proposed tariff will vary greatly based on the specific project under consideration. The tables below summarize the impact to both residential and commercial customers. The summaries of the potential impacts assume a 2,000 square foot home that uses both space and water heating for residential customers and annual usage of 1,800 therms for commercial customers.

In general, projects that include both a Main and Service extension will see a slight increase in the Allowable Investment. An increase in the Allowable Investment decreases the upfront costs that a customer may have to pay toward a project. The higher Allowable Investment is due in large part to the increase in costs over time, and the decrease in Intermountain's weighted average cost of capital in Case No. INT-G-16-02.

Example Allowable Investment Impact for Main and Service Combination Projects				
Rate Schedule	Curr	ent Allowance	Pro	posed Allowance
RS - Residential Service	\$	744	\$	887
GS -1 - General Service	\$	1,624	\$	1,692

For projects that include only a service extension, the footage that will be allowed without any investment by the customer has declined significantly. This results in large part from the fact that the Company's average usage per customer as calculated by the Musgrove Engineering study (see Exhibit No. 3) has declined significantly from the last time the usage per customer assumption was updated. The lower usage assumption reduces the assumed revenue that will be generated by the project over time to offset the upfront investment in natural gas facilities. Because of this, the part of the Allowable Investment impacted by average therm usage has declined.

Example of Service Line Footage Allowance Impact		
	Current Allowance	Proposed Allowance
Rate Schedule	(Footage)	(Footage)
RS - Residential Service	196 ft.	34 ft.
GS -1 - General Service	164 ft.	65 ft.

#### IX. EFFECTIVE DATE

This proposed tariff represents a significant change in the way Allowable Investment and the resulting customer advances are calculated by Intermountain. Because of this, the Company requests an effective date of April 1, 2020 to allow sufficient time for a new computer system to be developed that will ensure consistent application of the new tariff across Intermountain's service territory.

#### X. CUSTOMER NOTICE

The Company will issue notice of this Application to its affected customers. During the week of February 3, 2020 Intermountain will send a letter to those developers, builders, and HVAC contractors that may be affected by the proposed changes to inform them of the Company's request. A copy of the letter is attached and incorporated by reference.

#### XI. MODIFIED PROCEDURE

Intermountain requests that this matter be handled under modified procedure pursuant to Rules 201-204 of the Commission's Rules of Procedure. Intermountain stands ready for immediate consideration of this matter.

#### XII. REQUEST FOR RELIEF

Intermountain respectfully petitions the Idaho Public Utilities Commission as follows:

- a. That the Company's proposed tariff General Service Provisions Section C Installation and Extension of Natural Gas Mains and Services and General Service

   Provisions Section A be accepted as filed,
- b. That the tariff be effective April 1, 2020,
- b. That this Application be heard and acted upon without hearing under modified procedure, and
  - c. For such other relief as this Commission may determine proper.

DATED: January 27, 2020.

INTERMOUNTAIN GAS COMPANY

**GIVENS PURSLEY LLP** 

Lori A Blattner

Director – Regulatory Affairs

Preston N. Carter

By

Attorney for Intermountain Gas Company

## **EXHIBIT NO. 1**

## CASE NO. INT-G-20-01

## INTERMOUNTAIN GAS COMPANY

**CURRENT TARIFFS** 

**Showing Proposed Changes** 

(24 pages)

I.P.U.C. Gas Tariff Index Original First Revised Sheet No. A Name **Intermountain Gas Company** of Utility

**IDAHO PUBLIC UTILITIES COMMISSION Approved Effective** May 19, 2014 May 26, 2014 Jean D. Jewell Secretary

#### **INDEX GENERAL SERVICE PROVISIONS**

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Issued by: Intermountain Gas Company

By: Michael P. McGrath Lori A. Blattner Effective: May 26, 2014 April 1, 2020 Title: Director - Regulatory Affairs

I.P.U.C. Gas Tariff
Index
Original First Revised Sheet No. B

Name
of Utility Intermountain Gas Company

By: Michael P. McGrath Lori A. Blattner

Effective: May 26, 2014 April 1, 2020

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Issued by: Inte	rmountain Gas Company	

Title: Director - Regulatory Affairs

Exhibit No. 1 Case No. INT-G-20-01 Intermountain Gas Company Page 3 of 24

I.P.U.C. Gas Tariff Index Third Revised Fourth Revised Sheet No. C D Name **Intermountain Gas Company** of Utility

**IDAHO PUBLIC UTILITIES COMMISSION** Approved **Effective** <del>July 1, 2018</del> <del>June 26, 2018</del> Diane M. Hanian Secretary

#### INDEX **RATE SCHEDULES**

SCHEDULE NO.	<u>TITLE</u> <u>SHEET</u>
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PGA	Purchased Gas Cost Adjustment
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EE	Residential Energy Efficiency Rebate Program16
EEC	Energy Efficiency Charge17

Issued by: Intermountain Gas Company

By: Michael P. McGrath Lori A. Blattner
Effective: July 1, 2018 April 1, 2020 Title: Director – Regulatory Affairs

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I.P.U.C. Gas Tariff
Section A
Eighth Revised Ninth Sheet No. 7

Name of Utility Intermountain Gas Company

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Approved Effective
May 19, 2014 May 26, 2014
Jean D. Jewell Secretary

- 9.5 The Company shall determine the pressure to be supplied to the customer, and service shall be disconnected if pressure regulation equipment is changed or altered by customer.
- 9.6 Only those persons authorized by the Company may turn on a Company gas meter.
- 9.7 Whenever a customer's service is restarted by the Company for any reason, the Company will observe customer owned equipment and house piping for known or suspected hazardous conditions and for compliance with municipal, state and federal codes and standards at no additional cost to the customer.

#### 10.GAS LEAKS

10.1 The customer shall give immediate notice to the Company of leakage of gas. The Company will not make a credit adjustment on bills for lost gas unless the loss results from fault or neglect of agents of the Company. In the case of leakage or fire, the stopcock at the meter should be closed immediately.

#### 11. TEMPORARY DISCONTINUANCE OF SUPPLY

11.1 The Company may temporarily shut off the supply of gas to the customer's premises after reasonable notice for the purpose of making necessary repairs or adjustments to the main, service, meter or other facilities and reserves the right to shut off the gas supply without notice in case of emergency.

install and extend its mains and services to customers receiving service under Rate Schedules RS and GS-1 according to the provisions outlined in Section C.

# 12.INSTALLATION OF SERVICE PIPES AND CONNECTIONS AND EXTENSION OF MAINS AND SERVICES

- 12.1 The Company may provide a gas service line to a customer receiving service under Rate Schedules RS 1, RS 2 and GS 1 at its own expense from the property line bounding the street or right-of-way in which the gas main is located. This determination to provide service will be made according to the service line schedules as shown in Section C. All additional footage for service lines over the maximum allowed in these schedules may be charged an excess-footage fee.
  - (a) Service lines with an internal rate of return of 12.5% or greater will beinstalled by the Company at no charge. The Company investment will besecured by a Service Line Application and Agreement.

Issued by: Intermountain Gas Company

By: Michael P. McGrath Lori A. Blattner

Effective: May 26, 2014 April 1, 2020

Title: Director – Regulatory Affairs

Exhibit No. 1 Case No. INT-G-20-01 Intermountain Gas Company Page 5 of 24

	I.P.U.C. Gas Tari Section A Eighth Revised	ff	Sheet No. 8
r	Nome	Intermountain Ga	as Company

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- (b) Service lines with an internal rate of return less than 12.5% will not be constructed without payment of an excess footage charge by the customer. The Company investment will be secured by a Service Line Application and Agreement and a Service Extension Contract.
- 12.2 The Company requires Service Line Application and Agreement and Service Extension Contracts as follows for all new service lines extended from existing mains.
  - (a) The S ice Line Application and Agreement secures commitment from hen the service is the cust per to install specified gas appliances ose specified appliances are compar initiated. d to the graphs and on C to determine the allowable ser ce line footage that will tables in Sed rnal rate of return of at least 1 5%. When the allowable result in an int e is equal to or greater the service line foota the footage necessary to the service is constructe serve the customer at no charge to the customer and no additional doo ments are needed
  - (b) The Service Extension Co tract is ned sary in addition to the Service Line Application and Agreement hen th allowable service line footage is less customer. The allowable service line than that necessary to serv footage is converted to an "Allov Investment" that will result in an internal age necessary to serve the customer is rate of return of 12.5% and the converted to a "Calculated In "The difference between them is the excess footage charge th customer pust pay the Company before the The Service Extension Contract provides for service will be constructed the refund to the custom er of the excess otage charge with no interest if during the first twenty our (24) months after he service line is constructed the customer adds appliances and the recalc ated allowable service line footage is equal to or greater than the footage actually installed. The one based on the requirements force at the time the recalculation is Service Exten on Contract was signed.
- 12.3 For uses not appearing in Section C, an allowance for increased footage may be made to compensate for increased revenue.
- 12.4 The Company shall not be required to provide service under the provision where in the judgment of the Company, the premises proposed to be served are of such temporary nature or in such a state of repair as to be of crestionable permanence.
- 126 The Company reserves the right to designate the location of the service line, meter and regulator, and the amount of space which must be left unobstructed for the installation and future maintenance and operation thereof.

Issued by: Intermountain Gas Company

By: Michael P. McGrath Title: Director – Regulatory Affairs Effective: May 26, 2014

Exhibit No. 1 Case No. INT-G-20-01 Intermountain Gas Company Page 6 of 24

I.P.U.C. Gas Tariff
Section A
Eighth Revised Sheet No. 9

Name
of Utility Intermountain Gas Company

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May 19, 2014 May 26, 2014
Jean D. Jewell Secretary

- 12.6 Relocation of service piping for the convenience of the customer will be at the expense of the customer.
- 12.7 The customer to be served shall indemnify and hold the Company harmless from ability for trespass or injury to property crossed by the installation of the service ine.
- 12.8 Where a 3 vice connection is desired for premises on hich there is no permanent st. cture (mobile homes in a recognized mobile ome court and any structure situate on a permanent foundation will be consi ered permanent and will not be considered in applying this rule), the Comp ny will install a service connection to said premises only upon the paymen by the applicant of the estimated cost of sall service connection. If the ser ice connection remains in continuous use for a period of five (5) years from the e date of the installation, the Company will refund to the applicant the full amount nt advanced.
- 12.9 The Company will provide only one service to one customer. When requested, however, a second service for remote location may be provided if the new meter location is over fifty (50) leet from the closest point on the existing service and the new load justifies the second service under the criteria set forth in the service line schedules.

#### 13. EXTENSIONS OF MAINS

- 13.1 The Company shall extend mains to serve esidential or small commercial customers in its service ea according to th standards set forth in this paragraph. The Compar shall have the right to refuse service where, in its opinion, the building for which service is requested a not of such permanence as to warrant the exp diture involved. All costs for cut omers will be based on a two inch (2") diam er gas main unless the actual load quires a larger size.
  - (a) Projects with an internal rate of return equal to or greater han 12.5 percent will be constructed by the Company without charge. The Company's investment will be secured by either a type B Contract or, for individual customer, a Service Line Application and Agreement.
  - (b) Projects with an internal rate of return less than 12.5 percent will not be a instructed without a contribution in aid of construction and a type A contract.
  - (c) Contributions in aid of construction must be of an amount sufficient to achieve an internal rate of return of 12.5 percent.

Is led by: Intermountain Gas Company

by: Michael P. McGrath

Title: Director – Regulatory Affairs

Effective: May 26, 2014

Exhibit No. 1 Case No. INT-G-20-01 Intermountain Gas Company Page 7 of 24

I.P.U.C. Gas Section A Ninth Revised		Sheet No. 10
Name of Utility	Intermountain G	

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Approved Effective
May 19, 2014

Jean D. Jewell Secretary

- 12.2 13.2 The Company shall extend its mains to serve other than residential or small commercial customers at the option of the Company when, in its opinion, the prospective revenue warrants the investment.
  - 13.3 The Company requires main extension contracts and/or Service Line Applications and Agreements as follows for projects not meeting criteria under Schedule C or for all new main extension projects.
    - (a) Main Extension Contract Type B

This agreement is to secure a commitment from the subdivision developer to insure a proposed development will meet minimum project revenue standards as shown in Schedule C. This agreement will be in force for three (3) years from the end of the month in which the construction of the main extension is completed. The project revenue shall be computed from the gross revenue received in the twelve (12) month period of the third and final year. Customers connected during this final twelve (12) month period-will be adjusted for estimated annual revenue. If one and one half (1 ½) times the computed project revenue is less than the Company's investment, the developer shall pay the Company the difference between this computed revenue and the investment in the project.

#### (b) Main Extension Contract Type A

When in the determination of the Company the proposed extension of service will not provide sufficient revenue to meet the minimum rate of return, the Company will require an advance payment of an amount to-cover the additional costs over and above the allowable investment as determined in Paragraph 13.1. These funds will be subject to refund for a maximum of five (5) years, and will be reviewed yearly for potential refund. This refund shall be computed and returned to the customer in an amount equal to one and one half (1 ½) times the estimated annual gross revenue for the increased load from those new services not used to calculate any previous revenue.

#### (c) Service Line Application and Agreement

For new individual homes and existing home conversions, a Service Line-Application and Agreement is completed for each first year customer on the project. Estimated revenue from first year customers who have signed a Service Line Application and Agreement may be used to determine the Internal Rate of Return.

Issued by: Intermountain Gas Company

By: Michael P. McGrath Lori A. Blattner
Effective: May 26, 2014 April 1, 2020

Title: Director – Regulatory Affairs

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I.P.U.C. Gas Tariff Section A Seventh Revised Eighth Sheet No. 11		
Name of Utility Intermountain Gas Company		

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#### 13. 14. REPORTING INSTALLATION OF GAS FIRED EQUIPMENT

13.1 14.1 As may be required in the Company's tariffs or industrial customer contracts, all installations of new gas fired equipment shall be reported to the Company by the customer.

#### 14. 45. EMERGENCY OR STAND-BY SERVICE

14.1 15.1 Gas service is not available to any customer for equipment requiring an aggregate of more than two therms per hour for emergency stand-by, or intermittent use in conjunction with another fuel, except by special arrangement with the Company.

#### 15. 46. WATER PUMPING SERVICE

- 15.1 16.1 Farm customers and organizations using gas for the operation of irrigation and soil drainage pump engines accepted by the Company as qualified may select seasonal service under Rate Schedule GS-1 or if the requirements exceed 2,000 therms per day, the customer may elect service under Rate Schedule LV-1.
- 15.2 16.2 In order to obtain service for irrigation water pumping, a customer must provide the Company with either a payment covering at least 75% of the estimated seasonal usage or an acceptable letter of credit securing payment for 100% of the estimated total seasonal usage with provisions for monthly payments.

#### 16. 17. PRIORITIES OF FIRM SERVICE

16.1 47.1 Service to firm customers will be maintained on priority basis. In the event that the Company's firm gas supply is insufficient at any time to meet in full the requirements of customers served under Firm Rate Schedules, either due to inadequacy of supply or by reason of force majeure, the Commission may declare an emergency to exist, as that term is used in Idaho Code, Section 61-531, and curtailment by the Company of firm service shall be in the inverse order of the priorities specified herein.

Issued by: Intermountain Gas Company

By: Michael P. McGrath Lori A. Blattner Effective: May 26, 2014 April 1, 2020

Title: Director – Regulatory Affairs

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Name of Utility		in Gas Company

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May 19, 2014

Jean D. Jewell Secretary

- 16.2 17.2 Curtailment shall be imposed in the inverse order of the following priorities:
  - (a) Requirements of less than 500 therms per day of firm service;
  - (b) Requirements of 500 therms per day, but less than 2,000 therms per day of firm service, excepting gas used for industrial boiler fuel, and requirements for storage gas injection for gas reasonably anticipated to be needed for use in connection with priority (a) above or with this priority (b) within the next ensuing 90 days;
  - (c) Requirements of 2,000 therms or more per day of firm service for commercial customers and for industrial use for feedstock, direct fired processing and plant protection;
  - (d) Requirements for all other contracted customer uses.

<u>16.1</u> <del>17.1</del> ab

Subject to the provisions of Paragraph 47.4 above, curtailment within each priority and among the customers therein shall be imposed at as close a daily pro rata basis as is reasonably possible. One hundred percent (100%) of each customer's requirements in each priority will be curtailed before the next highest priority is curtailed.

16.3 The Company shall not be liable for damages nor for loss of productivity nor business arising out of curtailment under the schedule set forth in Paragraph 17.2 above.

16.2

- <u>16.4</u> The Company shall endeavor to give notice of curtailment and limitation of service as far in advance of actual curtailment as conditions permit.
- 16.5 17.5 In the event that it should be necessary to curtail firm service due to force majeure, the Company will attempt to adhere to the priorities established in Paragraph 17.2 to the extent that such adherence is technically feasible.
  16.2
- 16.6 17.6 The Company shall have the right to inspect customer's facilities in order to determine service requirements, establish the order of priority of service and ascertain whether curtailment is being carried out pursuant to this rule. The Company may physically terminate service to any customer who does not comply with a curtailment request or an inspection request issued pursuant to this Section 17.

16

Issued by: Intermountain Gas Company

By: Michael P. McGrath
Effective: May 26, 2014
April 1, 2020

Title: Director - Regulatory Affairs

Exhibit No. 1 Case No. INT-G-20-01 Intermountain Gas Company Page 10 of 24

I.P.U.C. Gas Tariff Section A Third Revised Fourth	Sheet No. 13
Name of Utility Intermountain Gas Co	ompany

IDAHO PUBLIC UTILITIES COMMISSION
Approved Effective
May 19, 2014
Jean D. Jewell Secretary

16.2

16.7 17.7 In cases of force majeure, the Company may deviate from strict adherence to the stated priorities in Section 17.2; if adherence to priorities would not improve the Company's ability to maintain its service in accordance with those priorities. All deviations from the priorities stated in Section 17.2; including differences between what a customer may actually receive and what the customer would reasonably be expected to take on a given day under the circumstances than existing as to that customer, shall be reported immediately by the Company to the Idaho Public Utilities Commission.

16.2 <u>1</u>

- 16.8 Any disputes concerning enforcement of any provision of this Section 47 may, upon application by any affected party, be submitted to the Idaho Public Utilities Commission for a ruling thereon.
- 16.9 17.9 For the purpose of applying the priority schedule, the following definitions shall apply:

<u>Firm Service</u>: Service from schedules or contracts under which seller is expressly obligated to deliver specific volumes within a given time, and which anticipates no interruptions except to permit curtailment under this Section 47:

16

<u>Commercial:</u> Service to customers engaged primarily in the sale of goods or services, including institutions and local, state and federal governmental agencies for uses other than those involving manufacturing.

<u>Industrial:</u> Service to customers engaged primarily in a process which creates or changes raw or unfinished materials into another form or product.

<u>Plant Protection Gas:</u> The minimum volumes required to prevent physical harm to the plant facilities or danger to plant personnel when such protection cannot feasibly be afforded through the use of an alternate fuel. This includes the protection of such material in process as would otherwise be destroyed but shall not include deliveries required to maintain plant protection.

<u>Feedstock Gas:</u> Natural gas used as raw material for its chemical properties in creating an end product.

<u>Direct Fired Processing:</u> This includes only: (a) the direct application of flaming gas on a product being processed or manufactured in an industrial process; and (b) gas uses which require precise temperature controls and precise flame characteristics not readily available in alternate fuels.

Issued by: Intermountain Gas Company

By: Michael P. McGrath Lori A. Blattner Effective: May 26, 2014 April 1, 2020

Title: Director – Regulatory Affairs

Exhibit No. 1 Case No. INT-G-20-01 Intermountain Gas Company Page 11 of 24

I.P.U.C. Gas Tari	ff	
Second Revised	<u>Third</u>	Sheet No. 14
Name of Utility	Intermountain Gas	s Company

IDAHO PUBLIC UTILITIES COMMISSION
Approved Effective
May 19, 2014

Jean D. Jewell Secretary

Title: Director - Regulatory Affairs

#### 17. 18. FORCE MAJEURE

The Company shall not be liable for damages resulting from or occasioned by a cause not reasonably within the control of the Company and which, by the exercise of due diligence and prudent management, the Company is unable to prevent or overcome. Such causes shall include, but not be limited to, acts of God, strikes and lockouts, acts of the public enemy, wars, blockades, insurrections, sabotage, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, arrests and restraints by the people of governmental bodies, civil disturbances, explosions, breakage or accident to machinery or lines of pipe, or the other of any court or governmental authority having jurisdiction.

#### 18. **19. TESTING**

18.1 19.1 At the request of a customer, the Company will perform a diagnostic test on the Company's meter/regulator at no charge.

Issued by: Intermountain Gas Company

By: Michael P. McGrath Lori A. Blattner
Effective: May 26, 2014 April 1, 2020

I.P.U.C. Gas Tariff Second Revised Volume No. 1 Supersedes First Revised Volume No. 1)

SECTION C

Second Revised

Intermountain Gas Company

Sheet No.

JUN 25 '86

JUN 25 '86

**EFFECTIVE** 

Per O.N. 20574

**APPROVED** 

Thinna L. Stalans SECT TARY

IDAHO PUBLIC UTILITES COMMISSION

GENERAL SERVICE PROVISIONS EXTENSION OF MAINS

#### OBJECTIVE

Name

Utility

The following submitted documents form a basis for a financial evaluation of proposed main extensions. These documents provide an orderly method of compart on and selection for new capital projects.

#### OPERATION

This evaluation procedure addresses the installation of new natural gas mains and service line, the type of project normally installed in new service areas such as residential subdivisions.

During the initial phase of a project the Company will determine the customer's estimated annual term consumption and the estimated facility costs or unit investment.

The project's Internal Rate of Retern (I.R.R.) is determined by utilizing the customer's annual therm usage the Company investment and either the residential or commercial matrix, At a hments I and II, whichever applies.

Jeffrey K. Lebens Title Senior Vice President

I.P.U.C. Gas Tariff Second Revised Volume No. 1 (Supersedes First Revised Volume No. 1)

SECTION C

Second Revised

Sheet No. 2

Intermountain Gas Company

IDAHO PUBLIC UTILITES COMMISSION **EFFECTIVE** APPROVED

JUN 25

JUN 25'86 JUN Par. O.N. 20576 Thypna L. Shalcus CRETARY

ATTACHMENT I TO SECTION C GENERAL SERVICE PROVISIONS EXTENSION OF MAINS

Based on Residential Rates Effective May, 1985

**THERMS** 

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   | 900  | 1000   
  | 1100   | 1200  
  | 1300   | 1400  | 1500  | 16  | 1700  
  | 1800   | 1900  | 2000  
   | 2200  | 2400   | 2600  |
| 5.7      | 7.8   | 9.8  | 11.6  | 13.3   
   | 1. 2   | 16.6   
  | 18.2   | 19.8  
  | 21.4   | 23.0  | 24.4  | 26.0  | 27.5  
  | 29.0   | 30.5  | 32.0  
   | 35.4  | 38.0   | 41.0  |
| 5.0      | 6.9   | 8,7  | 10.4  | 11.9   
   | 13.5   | 15.0   
  | 16.4   | 17.8  
  | 19.3   | 20.7  | 22  | 23.4  | 24.8  
  | 26.2   | 27.5  | 28.9  
   | 31.5  | 34.2   | 36.9  |
| 4.3      | 6.1   | 7.8  | 9.4   | 10.8   
   | 12.2   | 3.6  
  | 15.0   | 16.3  
  | 17.6   | 18.8  | 5.1   | 21.4  | 22.6  
  | 23.8   | 25.1  | 26.3  
   | 28.7  | 31.1   | 33.6  |
| 3.8      | 5.5   | 7.1  | 8.5   | 9.9  
   | 11.2   | 12   
  | 13.7   | 14.9  
  | 16.1   | 17.   | 18.5  | 19.6  | 20.8  
  | 21.9   | 23.0  | 24.2  
   | 26.4  | 28.6   | 30.8  |
| 3.3      | 4.9   | 6.4  | 7.8   | 9.1  
   | 10.3   | 11.5   
  | 12.7   | 13.8  
  | 14.9   | .0  | 17.1  | 18.2  | 19.3  
  | 20.3   | 21.4  | 22.4  
   | 24.5  | 26.5   | 28.5  |
| 2.8      | 4.4   | 5,8  | 7.2   | 8.4  
   | 9.6  | 10.7   
  | 1 3  | 12.9  
  | 13.9   | 14.9  | 16.0  | 17.0  | 17.9  
  | 18.9   | 19.9  | 20.9  
   | 22.8  | 24.7   | 26.6  |
| 2.5      | 4.0   | 5.3  | 6.6   | 7.8  
   | 8.9  | 10.0   
  | 11.0   | 12.0  
  | 1 0  | 14.0  | 14.9  | 15.9  | 16.8  
  | 17.7   | 18.6  | 19.6  
   | 21.4  | 23.1   | 24.9  |
| 2.1      | 3.6   | 4.9  | 6.1   | 7.2  
   | 8.3  | 9.3  
  | 10.3   | 3   
  | 12.2   | 13.1  | 14.0  | 14.9  | 15.8  
  | 16.7   | 17.5  | 18.4  
   | 20.1  | 21.8   | 23.4  |
| 1.8      | 3.2   | 4.5  | 5.7   | 6.7  
   | 7.8  | 8.7  
  | 9.7  | 10  
  | 11.5   | 12.4  | 13.3  | 14.1  | 14.9  
  | 15.8   | 16.6  | 17.4  
   | 19.0  | 20.6   | 22.1  |
| 1.5      | 2.9   | 4.1  | 5,2   | 6.3  
   | 7.3  | 8.2  
  | 9.1  | 0.0   
  | 2.9  | 11.7  | 12.5  | 13.4  | 14.1  
  | 14.9   | 15.7  | 16.5  
   | 18.0  | 19.5   | 21.0  |
| 1.3      | 2.6   | 3.8  | 4.9   | 5.9  
   | 6.8  | 7.8  
  | 8  | 9.5   
  | 10   | 11.1  | 11.9  | 12.7  | 13.4  
  | 14.2   | 14.9  | 15.7  
   | 17.1  | 18.5   | 20.0  |
| 1.1      | 2.3   | 3.5  | 4.5   | 5.5  
   | 6.4  | 7.3  
  | .2   | 9.0   
  | 9.8  | 10.6  | 11.3  | 12.1  | 12.8  
  | 13.5   | 14.2  | 14.9  
   | 16.3  | 17.7   | 19.0  |
| 0.8      | 2.1   | 3.2  | 4.2   | 5.2  
   | 6.1  | 6.9  
  | 7.8  | 8.5   
  | 9.4  | 1.  | 10.8  | 11.5  | 12.2  
  | 12.9   | 13.6  | 14.3  
   | 15.6  | 16.9   | 18.2  |
| 0.6      | 1.9   | 2.9  | 3.9   | 4.9  
   | 5.7  | .6   
  | 7.4  | 8.1   
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  | 12.3   | 13.0  | 13.6  
   | 14.9  | 16.2   | 17.4  |
| 0.5      | 1.6   | 2.7  | 3.7   | 4.6  
   | 5.4  | 6.2  
  | 7.0  | 7.7   
  | 8.5  | 9.2   | 9   | 10.5  | 11.2  
  | 11.8   | 12.5  | 13.1  
   | 14.3  | 15.5   | 16.7  |
| 0.3      | 1.4   | 2.5  | 3.4   | 4.3  
   | 5/   | 6.0  
  | 6.7  | 7.4   
  | 8.1  | 8.8   | 9.4   | 10.1  | 10.7  
  | 11.3   | 12 .0   | 12.6  
   | 13.8  | 14.9   | 16.1  |
| 0.1      | 1.3   | 2.3  | 3.2   | 4.1  
   | 4.9  | 5.6  
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  | 7.7  | 8.4   | 9.0   | .7  | 10.3  
  | 10.9   | 11.5  | 12.1  
   | 13.2  | 14.4   | 15,5  |
| <u> </u> | 1.1   | 2.1  | 3.0   | 4  
   | 4.6  | 5.3  
  | 6.1  | 6.8   
  | 7.4  | 8.1   | 8.7   | 9.  | 9.9   
  | 10.5   | 11.1  | 11.6  
   | 12.8  | 13.9   | 14.9  |
| -        | 0.9   | 1.9  | 2.8   | .6   
   | 4.4  | 5.1  
  | 5.8  | 6.5   
  | 7.1  | 7.7   | 8.4   | 8.9   | 9.5   
  | 10.1   | 10.7  | 11.2  
   | 12.3  | 13.4   | 14.4  |
| -        | 0,8   | 1.7  | 2.6   | 3.4  
   | 4.1  | 4.9  
  | 5.5  | 6.2   
  | 6.8  | 7.4   | 8.0   | 8.6   |   
  | 9.7  | 10.3  | 10.8  
   | 11.9  | 12.9   | 13.9  |
| -        | 0.6   | 1.5  | 1   | 3.2  
   | 3.9  | 4.6  
  | 5.3  | 5.9   
  | 6.6  | 7.2   | 7.7   | 8.3   | 8.9   
  | 9.4  | 9.9   | 10.5  
   | 11.5  | 12.5   | 13.5  |
|          | 5.7<br>5.0<br>4.3<br>3.8<br>3.3<br>2.8<br>2.5<br>2.1<br>1.8<br>1.5<br>1.3<br>1.1<br>0.8<br>0.6<br>0.5<br>0.3<br>0.1 | 5,7 7.8<br>5,0 6,9<br>4,3 6,1<br>3,8 5,5<br>3,3 4,9<br>2,8 4,4<br>2,5 4,0<br>2,1 3,6<br>1,8 3,2<br>1,5 2,9<br>1,3 2,6<br>1,1 2,3<br>0,8 2,1<br>0,6 1,9<br>0,5 1,6<br>0,3 1,4<br>0,1 1,3<br>- 1,1<br>- 0,9<br>- 0,8 | 5,7         7.8         9.8           5,0         6,9         8.7           4.3         6.1         7.8           3.8         5.5         7.1           3.3         4.9         6.4           2.8         4.4         5.8           2.5         4.0         5.3           2.1         3.6         4.9           1.8         3.2         4.5           1.5         2.9         4.1           1.3         2.6         3.8           1.1         2.3         3.5           0.8         2.1         3.2           0.6         1.9         2.9           0.5         1.6         2.7           0.3         1.4         2.5           0.1         1.3         2.3           -         1.1         2.1           -         0.9         1.9           -         0.8         1.7 | 5,7         7.8         9.8         11.6           5.0         6.9         8.7         10.4           4.3         6.1         7.8         9.4           3.8         5.5         7.1         8.5           3.3         4.9         6.4         7.8           2.8         4.4         5.8         7.2           2.5         4.0         5.3         6.6           2.1         3.6         4.9         6.1           1.8         3.2         4.5         5.7           1.5         2.9         4.1         5.2           1.3         2.6         3.8         4.9           1.1         2.3         3.5         4.5           0.8         2.1         3.2         4.2           0.6         1.9         2.9         3.9           0.5         1.6         2.7         3.7           0.3         1.4         2.5         3.4           0.1         1.3         2.3         3.2           -         1.1         2.1         3.0           -         0.9         1.9         2.8           -         0.8         1.7         2.9 <td>5.7         7.8         9.8         11.6         13.3           5.0         6.9         8.7         10.4         11.9           4.3         6.1         7.8         9.4         10.8           3.8         5.5         7.1         8.5         9.9           3.3         4.9         6.4         7.8         9.1           2.8         4.4         5.8         7.2         8.4           2.5         4.0         5.3         6.6         7.8           2.1         3.6         4.9         6.1         7.2           1.8         3.2         4.5         5.7         6.7           1.5         2.9         4.1         5.2         6.3           1.1         2.3         3.5         4.5         5.5           0.8         2.1         3.2         4.2         5.2           0.6         1.9         2.9         3.9         4.9           0.5         1.6         2.7         3.7         4.6           0.3         1.4         2.5         3.4         4.3           0.1         1.3         2.3         3.2         4.1           -         0.9</td> <td>5.7         7.8         9.8         11.6         13.3         1.0           5.0         6.9         8.7         10.4         11.9         13.5           4.3         6.1         7.8         9.4         10.8         12.2           3.8         5.5         7.1         8.5         9.9         11.2           3.3         4.9         6.4         7.8         9.1         10.3           2.8         4.4         5.8         7.2         8.4         9.6           2.5         4.0         5.3         6.6         7.8         8.9           2.1         3.6         4.9         6.1         7.2         8.3           1.8         3.2         4.5         5.7         6.7         7.8           1.5         2.9         4.1         5.2         6.3         7.3           1.3         2.6         3.8         4.9         5.9         6.8           1.1         2.3         3.5         4.5         5.5         6.4           0.8         2.1         3.2         4.2         5.2         6.1           0.5         1.6         2.7         3.7         4.6         5.4      &lt;</td> <td>5.7         7.8         9.8         11.6         13.3         1.0         16.6           5.0         6.9         8.7         10.4         11.9         13.5         15.0           4.3         6.1         7.8         9.4         10.8         12.2         3.6           3.8         5.5         7.1         8.5         9.9         11.2         12           3.3         4.9         6.4         7.8         9.1         10.3         11.5           2.8         4.4         5.8         7.2         8.4         9.6         10.7           2.5         4.0         5.3         6.6         7.8         8.9         10.0           2.1         3.6         4.9         6.1         7.2         8.3         9.3           1.8         3.2         4.5         5.7         6.7         7.8         8.7           1.5         2.9         4.1         5.2         6.3         7.3         8.2           1.3         2.6         3.8         4.9         5.9         6.8         7.8           1.1         2.3         3.5         4.5         5.5         6.4         7.3           0.8         &lt;</td> <td>5.7         7.8         9.8         11.6         13.3         10.0         16.6         18.2           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4           4.3         6.1         7.8         9.4         10.8         12.2         3.6         15.0           3.8         5.5         7.1         8.5         9.9         11.2         12         13.7           3.3         4.9         6.4         7.8         9.1         10.3         11.5         12.7           2.8         4.4         5.8         7.2         8.4         9.6         10.7         1.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.3           1.8         3.2         4.5         5.7         6.7         7.8         8.7         9.7           1.5         2.9         4.1         5.2         6.3         7.3         8.2         9.1           1.3         2.6         3.8         4.9         5.9         6.8         7.8<td>5.7         7.8         9.8         11.6         13.3         10.0         16.6         18.2         19.8           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8           4.3         6.1         7.8         9.4         10.8         12.2         3.6         15.0         16.3           3.8         5.5         7.1         8.5         9.9         11.2         12         13.7         14.9           3.3         4.9         6.4         7.8         9.1         10.3         11.5         32.7         13.8           2.8         4.4         5.8         7.2         8.4         9.6         10.7         12.8         12.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.3         13.3           1.8         3.2         4.5         5.7         6.7         7.8         8.7         9.7         10.0           1.3         2.6         3.8         4.9         5.9         6.8</td><td>5.7         7.8         9.8         11.6         13.3         1 9.0         16.6         18.2         19.8         21.4           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3           4.3         6.1         7.8         9.4         10.8         12.2         3.6         15.0         16.3         17.6           3.8         5.5         7.1         8.5         9.9         11.2         12.         13.7         14.9         16.1           3.3         4.9         6.4         7.8         9.1         10.3         11.5         82.7         13.8         14.9           2.8         4.4         5.8         7.2         8.4         9.6         10.7         1.8         12.9         13.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         14.0           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.3         3         42.2           1.3         2.6         3.8         4.9         5.9         6.8         7.8         8.7</td><td>5.7         7.8         9.8         11.6         13.3         1 9         16.6         18.2         19.8         21.4         23.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7           4.3         6.1         7.8         9.4         10.8         12.2         83.6         15.0         16.3         17.6         18.8           3.8         5.5         7.1         8.5         9.9         11.2         12.         13.7         14.9         16.1         17.6           3.3         4.9         6.4         7.8         9.1         10.3         11.5         82.7         13.8         14.9         6.0           2.8         4.4         5.8         7.2         8.4         9.6         10.7         1.8         12.9         13.9         14.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         13.9         14.9           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.3         3         22.2         13.9</td><td>5.7         7.8         9.8         11.6         13.3         1.9         16.6         18.2         19.8         21.4         23.0         24.4           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7           4.3         6.1         7.8         9.4         10.8         12.2       
 36.6         15.0         16.3         17.6         18.8         2.1           3.8         5.5         7.1         8.5         9.9         11.2         12.2         13.7         14.9         16.1         17.2         18.5           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         7.0         17.1           2.8         4.4         5.8         7.2         8.4         9.6         10.7         1.9         12.9         13.9         14.9         16.0           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         14.0         14.0         14.0           1.8         3.2         4.5         5.7</td><td>5.7         7.8         9.8         11.6         13.3         1.9         16.6         18.2         19.8         21.4         23.0         24.4         26.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4           4.3         6.1         7.8         9.4         10.8         12.2         83.6         15.0         16.3         17.6         18.8         2.1         21.4           3.8         5.5         7.1         8.5         9.9         11.2         12.2         13.7         14.9         16.1         17.6         18.5         19.6           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         4.0         16.0         17.0           2.8         4.4         5.8         7.2         8.4         9.6         10.7         11.0         12.9         13.9         14.9         16.0         17.1         18.2           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.0         11.9         12.9</td><td>5.7         7.8         9.8         11.6         13.3         1.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4         24.8           4.3         6.1         7.8         9.4         10.8         12.2         13.6         15.0         16.3         17.6         18.8         0.1         21.4         22.6           3.8         5.5         7.1         8.5         9.9         11.2         12.2         13.7         14.9         16.1         17.7         18.5         19.6         20.8           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         16.0         17.1         18.2         19.3           2.8         4.4         5.8         7.2         8.4         9.6         10.7         10.8         12.9         13.9         14.9         16.0         17.0         17.9           2.5         4.0         5.3         6.6         7.8<!--</td--><td>5.7         7.8         9.8         11.6         13.3         1.9         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4         24.8         26.2           4.3         6.1         7.8         9.4         10.8         12.2         36.6         15.0         16.3         17.6         18.8         2.1         21.4         22.6         23.8           3.8         5.5         7.1         8.5         9.9         11.2         12.0         13.7         14.9         16.1         17.7         18.5         19.6         20.8         21.9           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         16.0         17.0         17.9         18.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         14.9         16.0         17.0         17.9         18.9           2</td><td>5.7         7.8         9.8         11.6         13.3         18.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0         30.5           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22         23.4         24.8         26.2         27.5           4.3         6.1         7.8         9.4         10.8         12.2         38.6         15.0         16.3         17.6         18.8         6.1         21.4         22.6         23.8         25.1           3.8         5.5         7.1         8.5         9.9         11.2         12         13.7         14.9         16.1         17.         18.5         19.6         20.8         21.9         23.0           3.3         4.9         6.4         7.8         9.1         10.3         11.5         82.7         13.8         14.9         16.0         17.0         17.9         18.9         19.0           2.8         4.4         5.8         7.2         8.4         9.6         10.7         7.8         8.7         19.0         11.5</td><td>5.7         7.8         9.8         11.6         13.3         18.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0         30.5         32.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4         24.8         26.2         27.5         28.9           4.3         6.1         7.8         9.4         10.8         12.2         8.6         15.0         16.3         17.6         18.8         2.1         21.4         22.6         23.8         25.1         26.3           3.8         5.5         7.1         8.5         9.9         11.2         12.1         13.7         14.9         16.1         17.7         18.5         19.6         20.8         21.9         23.0         24.2           2.8         4.4         5.8         7.2         8.4         9.6         10.7         18.8         12.9         13.9         14.9         16.0         17.0         17.9         18.9         19.9         20.9           2.5         4.0         5.3         6.6         &lt;</td><td>5,7         7,8         9,8         11.6         13.3         10.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0         30.5         32.0         35.4           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.4         23.4         24.8         26.2         27.5         28.9         31.5           4.3         6.1         7.8         9.4         10.8         12.2         18.6         15.0         16.3         17.6         18.8         2.1         21.6         23.8         25.1         26.3         28.7           3.8         5.5         7.1         8.5         9.9         11.2         12.0         13.7         14.9         16.1         17.7         18.5         19.6         20.8         21.9         23.0         24.2         26.4           3.3         4.9         6.4         7.8         9.1         10.3         11.5         12.9         13.9         14.9         16.0         17.0         17.9         18.9         19.9         20.9         22.8           2.5</td><td>400         500         600         700         800         900         1000         1100         1100         1200&lt;</td></td></td> | 5.7         7.8         9.8         11.6         13.3           5.0         6.9         8.7         10.4         11.9           4.3         6.1         7.8         9.4         10.8           3.8         5.5         7.1         8.5         9.9           3.3         4.9         6.4         7.8         9.1           2.8         4.4         5.8         7.2         8.4           2.5         4.0         5.3         6.6         7.8           2.1         3.6         4.9         6.1         7.2           1.8         3.2         4.5         5.7         6.7           1.5         2.9         4.1         5.2         6.3           1.1         2.3         3.5         4.5         5.5           0.8         2.1         3.2         4.2         5.2           0.6         1.9         2.9         3.9         4.9           0.5         1.6         2.7         3.7         4.6           0.3         1.4         2.5         3.4         4.3           0.1         1.3         2.3         3.2         4.1           -         0.9 | 5.7         7.8         9.8         11.6         13.3         1.0           5.0         6.9         8.7         10.4         11.9         13.5           4.3         6.1        
7.8         9.4         10.8         12.2           3.8         5.5         7.1         8.5         9.9         11.2           3.3         4.9         6.4         7.8         9.1         10.3           2.8         4.4         5.8         7.2         8.4         9.6           2.5         4.0         5.3         6.6         7.8         8.9           2.1         3.6         4.9         6.1         7.2         8.3           1.8         3.2         4.5         5.7         6.7         7.8           1.5         2.9         4.1         5.2         6.3         7.3           1.3         2.6         3.8         4.9         5.9         6.8           1.1         2.3         3.5         4.5         5.5         6.4           0.8         2.1         3.2         4.2         5.2         6.1           0.5         1.6         2.7         3.7         4.6         5.4      < | 5.7         7.8         9.8         11.6         13.3         1.0         16.6           5.0         6.9         8.7         10.4         11.9         13.5         15.0           4.3         6.1         7.8         9.4         10.8         12.2         3.6           3.8         5.5         7.1         8.5         9.9         11.2         12           3.3         4.9         6.4         7.8         9.1         10.3         11.5           2.8         4.4         5.8         7.2         8.4         9.6         10.7           2.5         4.0         5.3         6.6         7.8         8.9         10.0           2.1         3.6         4.9         6.1         7.2         8.3         9.3           1.8         3.2         4.5         5.7         6.7         7.8         8.7           1.5         2.9         4.1         5.2         6.3         7.3         8.2           1.3         2.6         3.8         4.9         5.9         6.8         7.8           1.1         2.3         3.5         4.5         5.5         6.4         7.3           0.8         < | 5.7         7.8         9.8         11.6         13.3         10.0         16.6         18.2           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4           4.3         6.1         7.8         9.4         10.8         12.2         3.6         15.0           3.8         5.5         7.1         8.5         9.9         11.2         12         13.7           3.3         4.9         6.4         7.8         9.1         10.3         11.5         12.7           2.8         4.4         5.8         7.2         8.4         9.6         10.7         1.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.3           1.8         3.2         4.5         5.7         6.7         7.8         8.7         9.7           1.5         2.9         4.1         5.2         6.3         7.3         8.2         9.1           1.3         2.6         3.8         4.9         5.9         6.8         7.8 <td>5.7         7.8         9.8         11.6         13.3         10.0         16.6         18.2         19.8           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8           4.3         6.1         7.8         9.4         10.8         12.2         3.6         15.0         16.3           3.8         5.5         7.1         8.5         9.9         11.2         12         13.7         14.9           3.3         4.9         6.4         7.8         9.1         10.3         11.5         32.7         13.8           2.8         4.4         5.8         7.2         8.4         9.6         10.7         12.8         12.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.3         13.3           1.8         3.2         4.5         5.7         6.7         7.8         8.7         9.7         10.0           1.3         2.6         3.8         4.9         5.9         6.8</td> <td>5.7         7.8         9.8         11.6         13.3         1 9.0         16.6         18.2         19.8         21.4           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3           4.3         6.1         7.8         9.4         10.8         12.2         3.6         15.0         16.3         17.6           3.8         5.5         7.1         8.5         9.9         11.2         12.         13.7         14.9         16.1           3.3         4.9         6.4         7.8         9.1         10.3         11.5         82.7         13.8         14.9           2.8         4.4         5.8         7.2         8.4         9.6         10.7         1.8         12.9         13.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         14.0           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.3         3         42.2           1.3         2.6         3.8         4.9         5.9         6.8         7.8         8.7</td> <td>5.7         7.8         9.8         11.6         13.3         1 9         16.6         18.2         19.8         21.4         23.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7           4.3         6.1         7.8         9.4         10.8         12.2         83.6         15.0         16.3         17.6         18.8           3.8         5.5         7.1         8.5         9.9         11.2         12.         13.7         14.9         16.1         17.6           3.3         4.9         6.4         7.8         9.1         10.3         11.5         82.7         13.8         14.9         6.0           2.8         4.4         5.8         7.2         8.4         9.6         10.7         1.8         12.9         13.9         14.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         13.9         14.9           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.3         3         22.2         13.9</td> <td>5.7         7.8         9.8         11.6         13.3         1.9         16.6         18.2         19.8         21.4         23.0         24.4           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7           4.3         6.1         7.8         9.4         10.8         12.2         36.6         15.0         16.3         17.6         18.8         2.1           3.8         5.5         7.1         8.5         9.9         11.2         12.2         13.7         14.9         16.1         17.2         18.5           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         7.0         17.1           2.8         4.4         5.8         7.2         8.4         9.6         10.7         1.9         12.9         13.9         14.9         16.0           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         14.0         14.0         14.0           1.8         3.2         4.5         5.7</td> <td>5.7         7.8         9.8         11.6         13.3         1.9         16.6         18.2         19.8         21.4         23.0         24.4         26.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4           4.3         6.1         7.8         9.4         10.8         12.2         83.6         15.0         16.3         17.6         18.8         2.1         21.4           3.8         5.5         7.1         8.5         9.9         11.2         12.2         13.7         14.9         16.1         17.6         18.5         19.6           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         4.0         16.0         17.0           2.8         4.4         5.8         7.2         8.4         9.6         10.7         11.0         12.9         13.9         14.9         16.0         17.1         18.2           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.0         11.9         12.9</td> <td>5.7         7.8         9.8         11.6         13.3         1.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4         24.8           4.3         6.1         7.8         9.4         10.8         12.2         13.6         15.0         16.3         17.6         18.8         0.1         21.4         22.6           3.8         5.5         7.1         8.5         9.9         11.2         12.2         13.7         14.9         16.1         17.7         18.5         19.6         20.8           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         16.0         17.1         18.2         19.3           2.8         4.4         5.8         7.2         8.4         9.6         10.7         10.8         12.9         13.9         14.9         16.0         17.0         17.9           2.5         4.0         5.3         6.6         7.8<!--</td--><td>5.7         7.8         9.8         11.6         13.3         1.9         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0       
 16.4         17.8         19.3         20.7         22.7         23.4         24.8         26.2           4.3         6.1         7.8         9.4         10.8         12.2         36.6         15.0         16.3         17.6         18.8         2.1         21.4         22.6         23.8           3.8         5.5         7.1         8.5         9.9         11.2         12.0         13.7         14.9         16.1         17.7         18.5         19.6         20.8         21.9           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         16.0         17.0         17.9         18.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         14.9         16.0         17.0         17.9         18.9           2</td><td>5.7         7.8         9.8         11.6         13.3         18.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0         30.5           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22         23.4         24.8         26.2         27.5           4.3         6.1         7.8         9.4         10.8         12.2         38.6         15.0         16.3         17.6         18.8         6.1         21.4         22.6         23.8         25.1           3.8         5.5         7.1         8.5         9.9         11.2         12         13.7         14.9         16.1         17.         18.5         19.6         20.8         21.9         23.0           3.3         4.9         6.4         7.8         9.1         10.3         11.5         82.7         13.8         14.9         16.0         17.0         17.9         18.9         19.0           2.8         4.4         5.8         7.2         8.4         9.6         10.7         7.8         8.7         19.0         11.5</td><td>5.7         7.8         9.8         11.6         13.3         18.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0         30.5         32.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4         24.8         26.2         27.5         28.9           4.3         6.1         7.8         9.4         10.8         12.2         8.6         15.0         16.3         17.6         18.8         2.1         21.4         22.6         23.8         25.1         26.3           3.8         5.5         7.1         8.5         9.9         11.2         12.1         13.7         14.9         16.1         17.7         18.5         19.6         20.8         21.9         23.0         24.2           2.8         4.4         5.8         7.2         8.4         9.6         10.7         18.8         12.9         13.9         14.9         16.0         17.0         17.9         18.9         19.9         20.9           2.5         4.0         5.3         6.6         &lt;</td><td>5,7         7,8         9,8         11.6         13.3         10.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0         30.5         32.0         35.4           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.4         23.4         24.8         26.2         27.5         28.9         31.5           4.3         6.1         7.8         9.4         10.8         12.2         18.6         15.0         16.3         17.6         18.8         2.1         21.6         23.8         25.1         26.3         28.7           3.8         5.5         7.1         8.5         9.9         11.2         12.0         13.7         14.9         16.1         17.7         18.5         19.6         20.8         21.9         23.0         24.2         26.4           3.3         4.9         6.4         7.8         9.1         10.3         11.5         12.9         13.9         14.9         16.0         17.0         17.9         18.9         19.9         20.9         22.8           2.5</td><td>400         500         600         700         800         900         1000         1100         1100         1200&lt;</td></td> | 5.7         7.8         9.8         11.6         13.3         10.0         16.6         18.2         19.8           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8           4.3         6.1         7.8         9.4         10.8         12.2         3.6         15.0         16.3           3.8         5.5         7.1         8.5         9.9         11.2         12         13.7         14.9           3.3         4.9         6.4         7.8         9.1         10.3         11.5         32.7         13.8           2.8         4.4         5.8         7.2         8.4         9.6         10.7         12.8         12.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.3         13.3           1.8         3.2         4.5         5.7         6.7         7.8         8.7         9.7         10.0           1.3         2.6         3.8         4.9         5.9         6.8 | 5.7         7.8         9.8         11.6         13.3         1 9.0         16.6         18.2         19.8         21.4           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3           4.3         6.1         7.8         9.4         10.8         12.2         3.6         15.0         16.3         17.6           3.8         5.5         7.1         8.5         9.9         11.2         12.         13.7         14.9         16.1           3.3         4.9         6.4         7.8         9.1         10.3         11.5         82.7         13.8         14.9           2.8         4.4         5.8         7.2         8.4         9.6         10.7         1.8         12.9         13.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         14.0           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.3         3         42.2           1.3         2.6         3.8         4.9         5.9         6.8         7.8         8.7 | 5.7         7.8         9.8         11.6         13.3         1 9         16.6         18.2         19.8         21.4         23.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7           4.3         6.1         7.8         9.4         10.8         12.2         83.6         15.0         16.3         17.6         18.8           3.8         5.5         7.1         8.5         9.9         11.2         12.         13.7         14.9         16.1         17.6           3.3         4.9         6.4         7.8         9.1         10.3         11.5         82.7         13.8         14.9         6.0           2.8         4.4         5.8         7.2         8.4         9.6         10.7         1.8         12.9         13.9         14.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         13.9         14.9           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.3         3         22.2         13.9 | 5.7         7.8         9.8         11.6         13.3         1.9         16.6         18.2         19.8         21.4         23.0         24.4           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7           4.3         6.1         7.8         9.4         10.8         12.2         36.6         15.0         16.3         17.6         18.8         2.1           3.8         5.5         7.1         8.5         9.9         11.2         12.2         13.7         14.9         16.1         17.2         18.5           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         7.0         17.1           2.8         4.4         5.8         7.2         8.4         9.6         10.7         1.9         12.9         13.9         14.9         16.0           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         14.0         14.0         14.0           1.8         3.2         4.5         5.7 | 5.7         7.8         9.8         11.6         13.3         1.9         16.6 
       18.2         19.8         21.4         23.0         24.4         26.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4           4.3         6.1         7.8         9.4         10.8         12.2         83.6         15.0         16.3         17.6         18.8         2.1         21.4           3.8         5.5         7.1         8.5         9.9         11.2         12.2         13.7         14.9         16.1         17.6         18.5         19.6           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         4.0         16.0         17.0           2.8         4.4         5.8         7.2         8.4         9.6         10.7         11.0         12.9         13.9         14.9         16.0         17.1         18.2           2.1         3.6         4.9         6.1         7.2         8.3         9.3         10.0         11.9         12.9 | 5.7         7.8         9.8         11.6         13.3         1.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4         24.8           4.3         6.1         7.8         9.4         10.8         12.2         13.6         15.0         16.3         17.6         18.8         0.1         21.4         22.6           3.8         5.5         7.1         8.5         9.9         11.2         12.2         13.7         14.9         16.1         17.7         18.5         19.6         20.8           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         16.0         17.1         18.2         19.3           2.8         4.4         5.8         7.2         8.4         9.6         10.7         10.8         12.9         13.9         14.9         16.0         17.0         17.9           2.5         4.0         5.3         6.6         7.8 </td <td>5.7         7.8         9.8         11.6         13.3         1.9         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4         24.8         26.2           4.3         6.1         7.8         9.4         10.8         12.2         36.6         15.0         16.3         17.6         18.8         2.1         21.4         22.6         23.8           3.8         5.5         7.1         8.5         9.9         11.2         12.0         13.7         14.9         16.1         17.7         18.5         19.6         20.8         21.9           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         16.0         17.0         17.9         18.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         14.9         16.0         17.0         17.9         18.9           2</td> <td>5.7         7.8         9.8         11.6         13.3         18.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0         30.5           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22         23.4         24.8         26.2         27.5           4.3         6.1         7.8         9.4         10.8         12.2         38.6         15.0         16.3         17.6         18.8         6.1         21.4         22.6         23.8         25.1           3.8         5.5         7.1         8.5         9.9         11.2         12         13.7         14.9         16.1         17.         18.5         19.6         20.8         21.9         23.0           3.3         4.9         6.4         7.8         9.1         10.3         11.5         82.7         13.8         14.9         16.0         17.0         17.9         18.9         19.0           2.8         4.4         5.8         7.2         8.4         9.6         10.7         7.8         8.7         19.0         11.5</td> <td>5.7         7.8         9.8         11.6         13.3         18.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0         30.5         32.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4         24.8         26.2         27.5         28.9           4.3         6.1         7.8         9.4         10.8         12.2         8.6         15.0         16.3         17.6         18.8         2.1         21.4         22.6         23.8         25.1         26.3           3.8         5.5         7.1         8.5         9.9         11.2         12.1         13.7         14.9         16.1         17.7         18.5         19.6         20.8         21.9         23.0         24.2           2.8         4.4         5.8         7.2         8.4         9.6         10.7         18.8         12.9         13.9         14.9         16.0         17.0         17.9         18.9         19.9         20.9           2.5         4.0         5.3         6.6         &lt;</td> <td>5,7         7,8         9,8         11.6         13.3         10.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0         30.5         32.0         35.4           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.4         23.4         24.8         26.2         27.5         28.9         31.5           4.3         6.1         7.8         9.4         10.8         12.2         18.6         15.0         16.3         17.6         18.8         2.1         21.6         23.8         25.1         26.3         28.7           3.8         5.5         7.1         8.5         9.9         11.2         12.0         13.7         14.9         16.1         17.7         18.5         19.6         20.8         21.9         23.0         24.2         26.4           3.3         4.9         6.4         7.8         9.1         10.3         11.5         12.9         13.9         14.9         16.0         17.0         17.9         18.9         19.9         20.9         22.8           2.5</td> <td>400         500         600         700         800         900         1000         1100         1100         1200&lt;</td> | 5.7         7.8         9.8         11.6         13.3         1.9         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4         24.8         26.2           4.3         6.1         7.8         9.4         10.8         12.2         36.6         15.0         16.3         17.6         18.8         2.1         21.4         22.6         23.8           3.8         5.5         7.1         8.5         9.9         11.2         12.0         13.7         14.9         16.1         17.7         18.5         19.6         20.8         21.9           3.3         4.9         6.4         7.8         9.1         10.3         11.5         22.7         13.8         14.9         16.0         17.0         17.9         18.9           2.5         4.0         5.3         6.6         7.8         8.9         10.0         11.0         12.0         14.9         16.0         17.0         17.9         18.9           2 | 5.7         7.8         9.8         11.6         13.3         18.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0         30.5           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22         23.4         24.8         26.2         27.5           4.3         6.1         7.8         9.4         10.8         12.2         38.6         15.0         16.3         17.6         18.8         6.1         21.4         22.6         23.8         25.1           3.8         5.5         7.1         8.5         9.9         11.2         12         13.7         14.9         16.1         17.         18.5         19.6         20.8         21.9         23.0           3.3         4.9         6.4         7.8         9.1         10.3        
11.5         82.7         13.8         14.9         16.0         17.0         17.9         18.9         19.0           2.8         4.4         5.8         7.2         8.4         9.6         10.7         7.8         8.7         19.0         11.5 | 5.7         7.8         9.8         11.6         13.3         18.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0         30.5         32.0           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.7         23.4         24.8         26.2         27.5         28.9           4.3         6.1         7.8         9.4         10.8         12.2         8.6         15.0         16.3         17.6         18.8         2.1         21.4         22.6         23.8         25.1         26.3           3.8         5.5         7.1         8.5         9.9         11.2         12.1         13.7         14.9         16.1         17.7         18.5         19.6         20.8         21.9         23.0         24.2           2.8         4.4         5.8         7.2         8.4         9.6         10.7         18.8         12.9         13.9         14.9         16.0         17.0         17.9         18.9         19.9         20.9           2.5         4.0         5.3         6.6         < | 5,7         7,8         9,8         11.6         13.3         10.0         16.6         18.2         19.8         21.4         23.0         24.4         26.0         27.5         29.0         30.5         32.0         35.4           5.0         6.9         8.7         10.4         11.9         13.5         15.0         16.4         17.8         19.3         20.7         22.4         23.4         24.8         26.2         27.5         28.9         31.5           4.3         6.1         7.8         9.4         10.8         12.2         18.6         15.0         16.3         17.6         18.8         2.1         21.6         23.8         25.1         26.3         28.7           3.8         5.5         7.1         8.5         9.9         11.2         12.0         13.7         14.9         16.1         17.7         18.5         19.6         20.8         21.9         23.0         24.2         26.4           3.3         4.9         6.4         7.8         9.1         10.3         11.5         12.9         13.9         14.9         16.0         17.0         17.9         18.9         19.9         20.9         22.8           2.5 | 400         500         600         700         800         900         1000         1100         1100         1200< |

**Intermountain Gas Company** Issued by Jeffrey K. Lebens Title Senior Vice President

Exhibit No. 1 Case No. INT-G-20-01 Intermountain Gas Company Page 14 of 24

I.P.U.C. Gas Tariff Second Revised Volume No. 1 (Supersedes First Revised Volume No. 1)

SECTION C

Second Revised

Sheet No. 3

Nam Utility

Intermountain Gas Company

**IDAHO PUBLIC UTILITES COMMISSION APPROVED EFFECTIVE** 

JUN 25'86

JUN 25 '8

Per 6.N. 20576 Thypna J. Shalters St

ATTACHMENT II TO SECTION C GENERAL SERVICE PROVISIONS EXTENSION OF MAINS

Based on Commercial Rat

THERMS Effective May, 1985

INVESTMENT	500	1000	1500	200	2500	3000	3500	4000	4500	5000	5500	6000	6 <sup>5</sup>	7000	7500	8000	8500	9000	9500	10000
\$ 500	10.3	20.8	30.2	39.0	7.7	56.3	64.9	73.5	81.5	89.6	97.6	105.7	3.7	121.7	129.7	137.7	145.6	153.6	161.5	169.5
1,000	4.9	11.2	16.4	21.1	2.	30.1	34.5	38.9	43.1	47.2	51.3	55	59.5	63.6	67.7	71.7	75.8	79.8	83.9	87.9
1,500	2.6	7.5	11.4	14.8	17.9	21.1	24.1	27.1	29.9	32.7	35.5	.3	41.1	43.8	46.6	49.3	52.1	54.8	57.5	60.3
2,000	1.2	5.4	8.6	11.4	13.9	. 3	18.7	21.0	23.2	25.3	27.5	29.6	31.7	33.8	35.9	38.0	40.1	42.1	44.2	46.3
2,500	0.3	4.0	6.8	9.2	11.3	13.	15.4	17.3	19.1	20.8	21 8	24.3	26.0	27.7	29.4	31.1	32.8	34.5	36.1	37.9
3,000	-	3.0	5.5	7.6	9.5	11.3	2.0	14.7	16.2	17.7	19.2	20.7	22.1	23.6	25.0	26.4	27.9	29.3	30.7	32.1
3,500	-	2,2	4.5	6.4	8.2	9.8	11	12.8	14.1	15	16,8	18,1	19.3	20.6	21.8	23.1	24.3	25.5	26.7	28.0
4,000	-	1.6	3.7	5.5	7.1	8.6	10.0	11.3	12.5	ه.7	14.9	16.0	17.2	18.3	19.4	20.5	21.6	22.7	23.8	24.8
4,500	-	1.1	3.1	4.7	6.2	7.6	8.9	1	11.	12.3	13.4	14.4	15.5	16.5	17.5	18.5	19.5	20.5	21.4	22.4
5,000	-	0.6	2.5	4.1	5.5	6.8	8.0	9.1	.2	11.2	12.2	13.1	14.1	15.0	15.9	16.8	17.7	18.6	19.5	20.4
5,500	-	0.3	2.1	3.6	4.9	6.1	7.2	8.3	3	10.2	11.1	12.0	12.9	13.8	14.6	15.5	16.3	17.1	18.0	18.8
6,000	-	-	1.7	3.1	4.3	5.5	6.6	7 3	8	9.4	10.3	11.1	11.9	12.7	13.5	14.3	15.1	15.9	16.6	17.4
6,500	-	-	1.3	2.7	3.9	5.0	6.0	7.0	7.8	8.7	9.5	10.3	11.1	11.8	12.6	13.3	14.0	14.8	15.5	16.2
7,000	_	<u> </u>	1.0	2.3	3,4	4.5	5	6.4	7.2	8	8.8	9.6	10.3	11.0	11.8	12.5	13.1	13.8	14.5	15.2
7,500	T -	-	0.7	2.0	3.1	4.1	.0	5.9	6.7	7.5	8.2	9.0	9.7	10,3	11.0	11.7	12.3	13.0	13.6	14.2
8,000	-	-	0.4	1.7	2.7	3,7	4.6	5.5	6.2	7.0	7	8.4	9.1	9.7	10.4	11.0	11.6	12.2	12.8	13.4
8,500	T -	-	0.2	1.4	2.4	4	4.2	5.1	5.8	6.5	7.2	7.9	8.5	9.2	9.7	10.4	11.0	11.6	12.1	12.7
9,000	-	_	0.0	1.1	2.1	3.1	3.9	4.7	5.4	6.1	6.8	4	8.0	8.7	9.2	9.8	10.4	11.0	11.5	12.1
10,000	-		-	0.7	7	2.5	3.3	4.1	4.7	5.4	6.0	6.	7.2	7.8	8.3	8.9	9.4	9.9	10.4	10.9
11,000	_	_	-	0.3	1.2	2.0	2.8	3.5	4.2	4.8	5.4	5.9	6.5	7.0	7.5	8.0	8.5	9.0	9,5	10.0
12,000					0.8	1.6	2.4	3.0	3.7	4.2	4.8	5.3	5	6.4	6.9	7.3	7.8	8.3	8.7	9,2



I.P.U.C. Gas Tariff Second Revised Volume No. 1 (Supersedes First Revised Volume No. 1)

SECTION C

Second Revised

Sheet No. 4

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Intermountain Gas Company

IDAHO PUBLIC UTILITES COMMISSION APPROVED EFFECTIVE

JUN 25'86

JUN 25 66

Per O.N. 20576

Thepra L. Shalter ECRETARY

GENERAL SERVICE PROVISIONS SERVICE LINE INSTALLATIONS

#### OBJECTIV

The following service line documents correspond of the financial consideration of the main extension documents and procedure. The documents provide for the allowable service line footage determination when no main extension is eccessary, based upon the custofer's estimated therm consumption as shown in the attachments.

#### OPERATION

The service line rocedure addresses the installation of new natural gas service lines installed from existing makes.

The maximum allowable service line feetage that will be installed at no charge to the customer is determined by use of the Attachments.

Attachment III, Space Heating, staphically shows the allowable service line footage for the building flour area taking into consideration various combinations of space heating equipment and space heating combined with water heating. The allowable footage is then multiplied by the appropriate space heating factor as shown in Attachment IV, Table 1. This factor is an adjustment for various local degree days throughout the system.

Attachment IV, Table shows the additional allowable service line footage when certain other appliances are added to those in Attachment III.

Attachment V describes the allowable serice line footage for small commercial annual estimated therm consumption. As with all the graphical attachments, the marginal cost for the service line from main line to property line and the meter set costs are included in the economics of the graphical guidelings.

ssued by	Jintermountain Gas Compa	ny Senior	Vice President
Ву		Title	

I.P.U.C. Gas Tariff Second Revised Volume No. 1 (Supersedes First Revised Volume No. 1)

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SECTION C

Second Revised

Intermountain Gas Company

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JUN 25'86

**APPROVED** 

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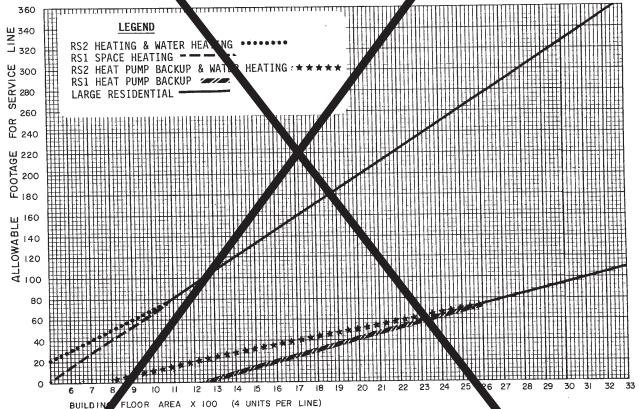
**EFFECTIVE** 

Per. O.N. 20576 Thypna J. Shalters ECRETARY

**IDAHO PUBLIC UTILITES COMMISSION** 

ATTACHMENT III TO SECTION C GENERAL SERVICE PROVISIONS SERVICE LINE INSTALLATIONS

#### RESIDENTIAL SERVICE LINE LENGTH - 12.5 %





Senior Vice President Jeffrey K. Lebens

I.P.U.C. Gas Tariff Second Revised Volume No. 1 SECTION C (Supersedes First Revised Volume No. 1) Second Revised Intermountain Gas Company Utility

IDAHO PUBLIC UTILITES COMMISSIO APPROVED

JUN 25'86

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Per. O.N. 20576 Thepra J. Shalle SECRETARY

ATTACHMENT IV TO SECTION C GENERAL SERVICE PROVISIONS SERVICE LINE INSTALLATIONS

#### TABLE 1

#### SPACE HEATING FACTORS

differences in annual degree days throughout the system, the Recognizing the ootage for SPACE HEATING following factors will be applied to the allowed loads. System Nort lized Average = 6448 Degree D

LOCATION	FACTOR
Nampa	1,0
Boise	1 00
Twin Falls	7.00
Pocatello	1.10
Idaho Falls	1.20
Sun Valley	1.64
Montpelier	1.35

#### TABLE 2

#### ADDED E APPLIANCES

in addition to appliances on When any of the following appliances charge footage as indicated for additional Schedule A, they qualif below.

APPLIANCE 7 PE	ADDITION L FOOTAGE
RANGE CLOTHE DRYER BARBY UE GAS LOG	16 7 2 2
Olice Doo	

listed above. footage will not be allowed for any appliance n Additiona regarding a specific installation should be direct to the Vice Question Presid nt of Marketing.

Issued by	Intermountain Gas Company					
Ву	Jeffrey K. Lebens	Title Senior Vice President				

I.P.U.C. Gas Tariff Second Revised Volume No. 1 Supersedes First Revised Volume No. 1)

SECTION C

Second Revised

Utility

Sheet No.

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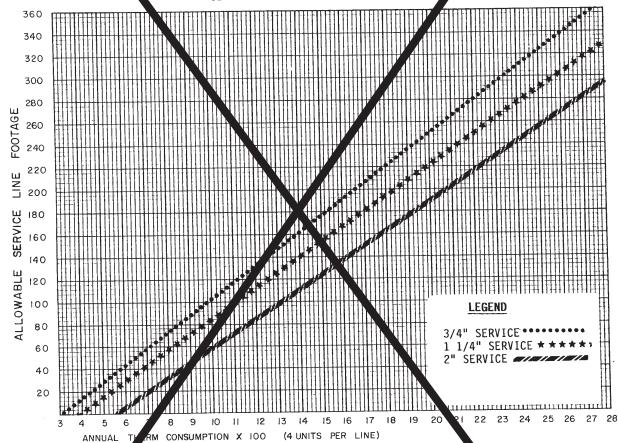
Per. O.N. 20576

IDAHO PUBLIC UTILITES COMMISSION

Intermountain Gas Company

ATTACHMENT V TO SECTION C GENERAL SERVICE PROVISIONS SERVICE LINE INSTALLATIONS

# COMMERCIAL SERVICE LINE LENGTH - 12.5 % IRR.





Jeffrey K. Lebens Title Senior Vice President

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I.P.U.C. Gas Tariff
Section C
Third Revised Sheet No. 1

Name
of Utility Intermountain Gas Company

# SECTION C GENERAL SERVICE PROVISIONS INSTALLATION AND EXTENSION OF NATURAL GAS MAINS AND SERVICES FOR RESIDENTIAL AND COMMERCIAL CUSTOMERS

The following sets forth the policy of Intermountain Gas Company for the installation and extension of natural gas Mains and Services. These provisions apply to residential (Rate Schedule RS) and commercial (Rate Schedule GS-1) applicants, and are separated into the following Sections:

- Section 1 Customer Extension Provisions
- Section 2 Developer Extension Provisions
- Section 3 Conditions Applicable to Both Customer and Developer
- Section 4 Allowable Investment
- Section 5 Project Cost
- Section 6 Other Payments
- Section 7 Vested Interest and Other Refunds
- Section 8 Definition of Terms

#### 1. CUSTOMER EXTENSION PROVISIONS

- 1.1 The Company will install Services and/or extend its Mains at no charge to the applicant if the Project Cost thereof does not exceed the Allowable Investment.
- 1.2 The Company will provide a Service Point at no charge to the applicant.
- 1.3 The Company will calculate the Allowable Investment for Services and Mains as outlined in Section 4.
- 1.4 The Company will calculate the total Project Cost to install Services and/or extend its Mains as outlined in Section 5.
- 1.5 When the Project Cost exceeds the Allowable Investment, the applicant will pay the difference prior to construction and installation.
  - (a) Payments for costs in excess of the Allowable Investment for Mains are refundable per the provisions stated in Section 7.
  - (b) Payments for costs in excess of the Allowable Investment for Services are not refundable.
- 1.6 A Service and Facilities Agreement must be signed by the applicant prior to the installation of a Service. If the applicant must pay, the Company will outline the Project Cost, Allowable Investment, and all applicable charges on the Agreement.

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By: Lori A. Blattner Title: Director – Regulatory Affairs

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- 1.7 A Main extension project will require a signed agreement prior to construction. The following agreement options are available:
  - (a) A Service and Facilities Agreement and/or a Line Extension Contract Type B (Investment Agreement) may be used as a guarantee toward the extension of Mains when the homes are either existing or under construction, are outside of Developments, and the total Main extension Project Cost does not exceed the Allowable Investment.
  - (b) A Line Extension Contract Type A (Contribution Agreement) may be used when a payment is required due to Project Cost in excess of Allowable Investment for Mains. This contract documents the agreement for payment and potential refunds.
  - (c) The Company may require a General Agreement when therm usage or construction costs are unpredictable, or when structures or business operations are non-permanent.

#### 2. DEVELOPER EXTENSION PROVISIONS

- 2.1 For residential and commercial Developments, the Company will follow the same procedures outlined in Section 1 with the exception that the Company will evaluate the combined Project Cost of Service Lines and Mains against the combined Allowable Investment for Service Lines and Mains.
- 2.2 Developer payments and agreements will be determined in the following manner:
  - (a) The Company will collect a deposit for the full cost of the Main extension prior to construction if the Company determines the Development is at risk of incompletion due to current economic conditions, lack of or poor developer track record, or isolated location of the Development. Refunds will be calculated and processed according to Section 7, and the payment will be secured by a Line Extension Contract - Type A (Contribution Agreement).
  - (b) If the combined Project Cost of Services and Mains exceeds the combined Allowable Investment for Services and Mains, the Company will collect the difference from the developer prior to construction. Refunds will be calculated and processed according to Section 7 and the payment will be secured by a Line Extension Contract - Type A (Contribution Agreement).
  - (c) If the combined Allowable Investment for Services and Mains exceeds the combined Project Cost of Services and Mains, the Company may install the required Gas Facilities to serve all lots at no cost to the developer. A Line Extension Contract - Type B (Investment Agreement) will be used as a guarantee that the developer will construct the required buildings used in the Allowable Investment calculation.
  - (d) The Company may require a General Agreement when gas therm usage or construction costs are unpredictable, or when structures or business operations are non-permanent.

#### 3. CONDITIONS APPLICABLE TO BOTH CUSTOMER AND DEVELOPER

3.1 The Company reserves the right to cancel contracts if the applicant defers construction of a project for more than six months from the date of the contract, or has not prepared the location where the project is to be constructed to a condition sufficient for the Company to begin

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By: Lori A. Blattner Title: Director – Regulatory Affairs

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construction within six months of the date of the contract.

- 3.2 Relocation or abandonment of Company owned Gas Facilities will be at the expense of the applicant when required by the applicant.
- 3.3 The applicant may be required to reimburse the Company for the installation, extension, or abandonment of Gas Facilities if the terms of the signed agreement are not met.
- 3.4 The applicant shall indemnify and hold the Company harmless from liability for access for routine maintenance, inspections, and emergencies, or for injury to property caused by the installation of a Service.
- 3.5 The Company will install a single Service per applicant, unless the applicant requests an additional Service. The Company may provide an additional Service on a case-by-case basis, provided there is over one-hundred-feet between meter locations. Each Service must follow the provisions of this section. The Company may waive the one-hundred-foot requirement when an additional Service is required for Multifamily or Interruptible Snowmelt Service (Rate Schedules IS-R and IS-C).

#### 4. ALLOWABLE INVESTMENT

- 4.1 The Allowable Investment for Services and Mains is determined by first calculating the estimated annual therm usage and then applying the Allowable Investment Factor per therm.
- 4.2 The estimated annual therm usage is calculated as follows:
  - (a) For residential applicants:

When natural gas is the primary heat source, calculate the estimated annual space heating therm usage by multiplying the square foot factor of 0.234 by the square footage of the home.

To the estimated annual space heating therm usage, add gas appliance annual therm usage estimates from the chart below, as applicable, to calculate the total estimated therm usage per year. Non-discretionary load appliances not on this list can be estimated by the Company on a case-by-case basis. In residential Developments where specific appliances are unknown at the time of calculation, the Company will base therm estimates on only the estimated annual space heating therm usage plus the water heater therm estimate.

Natural Gas Appliances Annual Therm Estimates					
Range	23				
Seasonal Fireplace	50				
Grill	15				
Clothes Dryer	28				
Water Heater	240				

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(b) For commercial applicants:

The therm usage estimate will be determined by the Company on a case-by-case basis. The estimate will be based on the climate zone, the heated structure square footage, commercial property type, and applicable gas appliances.

4.3 To determine the Allowable Investment per applicant, multiply the estimated annual therm usage per applicant by the applicable Allowable Investment Factor below to calculate the Allowable Investment in dollars:

Allowable Investment Factors						
Customer Type	Service	Main	Combined			
Residential	0.593	0.660	1.253			
Commercial	0.445	0.495	0.940			

- 4.4 The applicant agrees to install and activate gas appliances pursuant to the signed agreement(s) and the therm usage estimates used to determine the Allowable Investment.
- 4.5 The Company may calculate the Allowable Investment for applicants with structures or business operations which are non-permanent on a case-by-case basis.

#### 5. PROJECT COST

- 5.1 In the event the Company can defray any of the trench and backfill costs, for example by sharing a trench with other utilities, the cost reduction will be included in the Main extension cost or Service cost estimates.
- 5.2 The Service Line Project Cost estimate is determined by multiplying the on-property Service Line length by \$12.38 per foot.
- 5.3 The Main Extension Project Cost estimate is based on the Gas Facilities (excluding Services) required to serve the gas load of the requesting applicant. This includes but is not limited to Main, regulator stations, valves, stubs and Main fittings.
  - (a) The Company will provide a Project Cost estimate to the applicant prior to execution of an agreement.
  - (b) The estimate will exclude costs for Company Betterment.
  - (c) The Company includes construction overhead charges in the amount of 11.92%.
  - (d) The Main extension Project Cost will be divided by the number of estimated Service Points to calculate the Main extension Project Cost per applicant.

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By: Lori A. Blattner Title: Director – Regulatory Affairs

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#### 6. OTHER PAYMENTS

- 6.1 The Company may require advanced payment from the applicant in the following situations:
  - (a) As a guarantee when proposed structures and Services are temporary in nature or the gas load is unpredictable.
  - (b) When the Company conducts pre-construction engineering studies to improve the accuracy of cost estimates.
- 6.2 If an advanced payment is collected according to Section 6.1(a), the Company will refund an amount equal to the Allowable Investment to customers who meet the terms outlined in the General Agreement for guaranteed usage. Refunds will not exceed the amount of the advanced payment.
- 6.3 If an advanced payment is collected according to Section 6.1(b), and the actual cost of installation is less than the estimated cost, the difference will be refunded to the customer.

#### 7. VESTED INTEREST AND DEPOSIT REFUNDS

- 7.1 A customer or developer is eligible for refund of a payment made for Project Costs in excess of the Allowable Investment for Mains when additional Service Points, not used in the original calculation or in a previous refund calculation, connect to the Main extension within five years from installation.
  - (a) The Company will conduct annual reviews to determine if additional customers have connected to the Main and turned on gas service.
  - (b) Intermountain will take the steps outlined in Section 4 to calculate the Allowable Investment for Mains for each additional customer.
  - (c) The Company will refund to the original applicant or developer the equivalent of the Allowable Investment for Mains for each additional customer. Refunds will be made up to the total upfront payment, but not to exceed the Project Cost in excess of Allowable Investment for Mains.
- 7.2 When a project for which the Company collects a deposit as outlined in Section 2.2(a) is completed or at the end of five years, whichever is sooner, the Company will refund the deposit less any Project Cost in excess of Allowable Investment.

#### 8. DEFINITION OF TERMS

- 8.1 <u>Allowable Investment</u> The portion of the cost of Gas Facilities funded by the Company (see Section 4 for Allowable Investment amounts).
- 8.2 <u>Allowable Investment Factor</u> A factor derived from the Present Value (PV) of the embedded cost of Mains and Services in the Company's approved tariff. The PV calculation uses the IPUC approved Weighted Average Cost of Capital as the discount rate over the life of the plant. Allowable Investment Factors for Service and Main are calculated separately (see Section 4.3).

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By: Lori A. Blattner Title: Director – Regulatory Affairs

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Name of Utility	Intermountain Gas Company	

- 8.3 <u>Applicant</u> A person or entity requesting the Company to provide new, relocation or abandonment of Gas Facilities.
- 8.4 <u>Company Betterment</u> The portion of the cost estimate for the extension of Gas Facilities that provides a benefit to the Company, but is not required by the applicant, based on the applicant's estimated gas load.
  - (a) Betterments may include the installation of Gas Facilities required to ensure the integrity and continuity of the overall Gas Distribution System.
  - (b) If the applicant requesting a Main extension is located at the end of the Company's system, in a remote location, or as part of a larger Development, the costs to serve the applicant may not be considered Company Betterment.
- 8.5 <u>Customer</u> A person or entity that purchases natural gas as an energy source for their residential or commercial use.
- 8.6 <u>Development</u> Residential or commercial land developments, including subdivisions and coordinated home/business owner projects.
- 8.7 <u>Gas Facilities</u> Includes, but is not limited to, Mains, Services, regulator stations, valves, risers, tees and other appurtenances.
- 8.8 <u>General Agreement</u> A mutual agreement between the Company and the Applicant to secure the Company's investment for Facilities installed for unpredictable construction conditions, temporary structures, or unpredictable therm usage.
- 8.9 <u>Main</u> The underground pipelines, and required fittings, used for the distribution of natural gas upstream of Service Lines.
- 8.10 <u>Project Cost</u> The cost estimate of gas facilities required to serve the Applicant(s). It can include Main costs, Service costs, or both. Company Betterment costs are excluded.
- 8.11 Service Combination of the Service Line and the Service Point.
- 8.12 <u>Service Line</u> An underground gas pipeline and required fittings which extends downstream from a Main, or branches from an existing Service Line to the location of the meter.
- 8.13 <u>Service Point</u> The point at which the meter is located at the end of the Service Line and includes the meter, meter bar, regulator, shut-off valve, and Electronic Read Transmitter (ERT).

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By: Lori A. Blattner Title: Director – Regulatory Affairs

# **EXHIBIT NO. 2**

# CASE NO. INT-G-20-01

# INTERMOUNTAIN GAS COMPANY

PROPOSED TARIFFS

(15 pages)

I.P.U.C. Gas Tariff
Index
First Revised Sheet No. A

Name
of Utility Intermountain Gas Company

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	11. Temporary Discontinuance of Supply	7
	12. Installation and Extension of Mains and Services	7
	13. Reporting Installation of Gas Fired Equipment	8
	14. Emergency or Stand-by Service	8
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	18 Testing	11

Issued by: Intermountain Gas Company

By: Lori A. Blattner Title: Director – Regulatory Affairs

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I.P.U.C. Gas Tariff
Index
First Revised Sheet No. B

Name of Utility Intermountain Gas Company

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By: Lori A. Blattner Title: Director – Regulatory Affairs

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I.P.U.C. Gas Tariff
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Fourth Revised Sheet No. D

Name of Utility Intermountain Gas Company

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By: Lori A. Blattner Title: Director – Regulatory Affairs

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- 9.5 The Company shall determine the pressure to be supplied to the customer, and service shall be disconnected if pressure regulation equipment is changed or altered by customer.
- 9.6 Only those persons authorized by the Company may turn on a Company gas meter.
- 9.7 Whenever a customer's service is restarted by the Company for any reason, the Company will observe customer owned equipment and house piping for known or suspected hazardous conditions and for compliance with municipal, state and federal codes and standards at no additional cost to the customer.

# 10.GAS LEAKS

10.1 The customer shall give immediate notice to the Company of leakage of gas. The Company will not make a credit adjustment on bills for lost gas unless the loss results from fault or neglect of agents of the Company. In the case of leakage or fire, the stopcock at the meter should be closed immediately.

# 11. TEMPORARY DISCONTINUANCE OF SUPPLY

11.1 The Company may temporarily shut off the supply of gas to the customer's premises after reasonable notice for the purpose of making necessary repairs or adjustments to the main, service, meter or other facilities and reserves the right to shut off the gas supply without notice in case of emergency.

# 12. INSTALLATION AND EXTENSION OF MAINS AND SERVICES

- 12.1 The Company may install and extend its mains and services to customers receiving service under Rate Schedules RS and GS-1 according to the provisions outlined in Section C.
- 12.2 The Company shall extend its mains to serve other than residential or small commercial customers at the option of the Company when, in its opinion, the prospective revenue warrants the investment.

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By: Lori A. Blattner Title: Director – Regulatory Affairs

Exhibit No. 2 Case No. INT-G-20-01 Intermountain Gas Company Page 6 of 15

I.P.U.C. Gas Tariff
Section A
Ninth Revised

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Intermountain Gas Company

# 13. REPORTING INSTALLATION OF GAS FIRED EQUIPMENT

13.1 As may be required in the Company's tariffs or industrial customer contracts, all installations of new gas fired equipment shall be reported to the Company by the customer.

# 14. EMERGENCY OR STAND-BY SERVICE

14.1 Gas service is not available to any customer for equipment requiring an aggregate of more than two therms per hour for emergency stand-by, or intermittent use in conjunction with another fuel, except by special arrangement with the Company.

# 15. WATER PUMPING SERVICE

- 15.1 Farm customers and organizations using gas for the operation of irrigation and soil drainage pump engines accepted by the Company as qualified may select seasonal service under Rate Schedule GS-1 or if the requirements exceed 2,000 therms per day, the customer may elect service under Rate Schedule LV-1.
- 15.2 In order to obtain service for irrigation water pumping, a customer must provide the Company with either a payment covering at least 75% of the estimated seasonal usage or an acceptable letter of credit securing payment for 100% of the estimated total seasonal usage with provisions for monthly payments.

# 16. PRIORITIES OF FIRM SERVICE

16.1 Service to firm customers will be maintained on priority basis. In the event that the Company's firm gas supply is insufficient at any time to meet in full the requirements of customers served under Firm Rate Schedules, either due to inadequacy of supply or by reason of force majeure, the Commission may declare an emergency to exist, as that term is used in Idaho Code, Section 61-531, and curtailment by the Company of firm service shall be in the inverse order of the priorities specified herein.

Issued by: Intermountain Gas Company

By: Lori A. Blattner Title: Director – Regulatory Affairs

Exhibit No. 2 Case No. INT-G-20-01 Intermountain Gas Company Page 7 of 15

I.P.U.C. Gas Tariff
Section A
Ninth Revised
Sheet No. 9

Name
of Utility
Intermountain Gas Company

- 16.2 Curtailment shall be imposed in the inverse order of the following priorities:
  - (a) Requirements of less than 500 therms per day of firm service;
  - (b) Requirements of 500 therms per day, but less than 2,000 therms per day of firm service, excepting gas used for industrial boiler fuel, and requirements for storage gas injection for gas reasonably anticipated to be needed for use in connection with priority (a) above or with this priority (b) within the next ensuing 90 days;
  - (c) Requirements of 2,000 therms or more per day of firm service for commercial customers and for industrial use for feedstock, direct fired processing and plant protection;
  - (d) Requirements for all other contracted customer uses.

Subject to the provisions of Paragraph 16.1 above, curtailment within each priority and among the customers therein shall be imposed at as close a daily pro rata basis as is reasonably possible. One hundred percent (100%) of each customer's requirements in each priority will be curtailed before the next highest priority is curtailed.

- 16.3 The Company shall not be liable for damages nor for loss of productivity nor business arising out of curtailment under the schedule set forth in Paragraph 16.2 above.
- 16.4 The Company shall endeavor to give notice of curtailment and limitation of service as far in advance of actual curtailment as conditions permit.
- 16.5 In the event that it should be necessary to curtail firm service due to force majeure, the Company will attempt to adhere to the priorities established in Paragraph 16.2 to the extent that such adherence is technically feasible.
- 16.6 The Company shall have the right to inspect customer's facilities in order to determine service requirements, establish the order of priority of service and ascertain whether curtailment is being carried out pursuant to this rule. The Company may physically terminate service to any customer who does not comply with a curtailment request or an inspection request issued pursuant to this Section 16.

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By: Lori A. Blattner Title: Director – Regulatory Affairs

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I.P.U.C. Gas Tariff
Section A
Tenth Revised Sheet No. 10

Name
of Utility Intermountain Gas Company

- 16.7 In cases of force majeure, the Company may deviate from strict adherence to the stated priorities in Section 16.2, if adherence to priorities would not improve the Company's ability to maintain its service in accordance with those priorities. All deviations from the priorities stated in Section 16.2, including differences between what a customer may actually receive and what the customer would reasonably be expected to take on a given day under the circumstances than existing as to that customer, shall be reported immediately by the Company to the Idaho Public Utilities Commission.
- 16.8 Any disputes concerning enforcement of any provision of this Section 16 may, upon application by any affected party, be submitted to the Idaho Public Utilities Commission for a ruling thereon.
- 16.9 For the purpose of applying the priority schedule, the following definitions shall apply:

<u>Firm Service</u>: Service from schedules or contracts under which seller is expressly obligated to deliver specific volumes within a given time, and which anticipates no interruptions except to permit curtailment under this Section 16.

<u>Commercial:</u> Service to customers engaged primarily in the sale of goods or services, including institutions and local, state and federal governmental agencies for uses other than those involving manufacturing.

<u>Industrial:</u> Service to customers engaged primarily in a process which creates or changes raw or unfinished materials into another form or product.

<u>Plant Protection Gas:</u> The minimum volumes required to prevent physical harm to the plant facilities or danger to plant personnel when such protection cannot feasibly be afforded through the use of an alternate fuel. This includes the protection of such material in process as would otherwise be destroyed but shall not include deliveries required to maintain plant protection.

<u>Feedstock Gas:</u> Natural gas used as raw material for its chemical properties in creating an end product.

<u>Direct Fired Processing</u>: This includes only: (a) the direct application of flaming gas on a product being processed or manufactured in an industrial process; and (b) gas uses which require precise temperature controls and precise flame characteristics not readily available in alternate fuels.

Issued by: Intermountain Gas Company

By: Lori A. Blattner Title: Director – Regulatory Affairs

Exhibit No. 2 Case No. INT-G-20-01 Intermountain Gas Company Page 9 of 15

I.P.U.C. Gas Tariff
Section A
Eighth Revised

Name
of Utility

Intermountain Gas Company

# 17. FORCE MAJEURE

The Company shall not be liable for damages resulting from or occasioned by a cause not reasonably within the control of the Company and which, by the exercise of due diligence and prudent management, the Company is unable to prevent or overcome. Such causes shall include, but not be limited to, acts of God, strikes and lockouts, acts of the public enemy, wars, blockades, insurrections, sabotage, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, arrests and restraints by the people of governmental bodies, civil disturbances, explosions, breakage or accident to machinery or lines of pipe, or the other of any court or governmental authority having jurisdiction.

# 18. TESTING

18.1 At the request of a customer, the Company will perform a diagnostic test on the Company's meter/regulator at no charge.

Issued by: Intermountain Gas Company

By: Lori A. Blattner Title: Director – Regulatory Affairs

I.P.U.C. Gas Tariff
Section C
Third Revised Sheet No. 1

Name
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# SECTION C GENERAL SERVICE PROVISIONS INSTALLATION AND EXTENSION OF NATURAL GAS MAINS AND SERVICES FOR RESIDENTIAL AND COMMERCIAL CUSTOMERS

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- 1.2 The Company will provide a Service Point at no charge to the applicant.
- 1.3 The Company will calculate the Allowable Investment for Services and Mains as outlined in Section 4.
- 1.4 The Company will calculate the total Project Cost to install Services and/or extend its Mains as outlined in Section 5.
- 1.5 When the Project Cost exceeds the Allowable Investment, the applicant will pay the difference prior to construction and installation.
  - (a) Payments for costs in excess of the Allowable Investment for Mains are refundable per the provisions stated in Section 7.
  - (b) Payments for costs in excess of the Allowable Investment for Services are not refundable.
- 1.6 A Service and Facilities Agreement must be signed by the applicant prior to the installation of a Service. If the applicant must pay, the Company will outline the Project Cost, Allowable Investment, and all applicable charges on the Agreement.

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- 1.7 A Main extension project will require a signed agreement prior to construction. The following agreement options are available:
  - (a) A Service and Facilities Agreement and/or a Line Extension Contract Type B (Investment Agreement) may be used as a guarantee toward the extension of Mains when the homes are either existing or under construction, are outside of Developments, and the total Main extension Project Cost does not exceed the Allowable Investment.
  - (b) A Line Extension Contract Type A (Contribution Agreement) may be used when a payment is required due to Project Cost in excess of Allowable Investment for Mains. This contract documents the agreement for payment and potential refunds.
  - (c) The Company may require a General Agreement when therm usage or construction costs are unpredictable, or when structures or business operations are non-permanent.

# 2. DEVELOPER EXTENSION PROVISIONS

- 2.1 For residential and commercial Developments, the Company will follow the same procedures outlined in Section 1 with the exception that the Company will evaluate the combined Project Cost of Service Lines and Mains against the combined Allowable Investment for Service Lines and Mains.
- 2.2 Developer payments and agreements will be determined in the following manner:
  - (a) The Company will collect a deposit for the full cost of the Main extension prior to construction if the Company determines the Development is at risk of incompletion due to current economic conditions, lack of or poor developer track record, or isolated location of the Development. Refunds will be calculated and processed according to Section 7, and the payment will be secured by a Line Extension Contract Type A (Contribution Agreement).
  - (b) If the combined Project Cost of Services and Mains exceeds the combined Allowable Investment for Services and Mains, the Company will collect the difference from the developer prior to construction. Refunds will be calculated and processed according to Section 7 and the payment will be secured by a Line Extension Contract - Type A (Contribution Agreement).
  - (c) If the combined Allowable Investment for Services and Mains exceeds the combined Project Cost of Services and Mains, the Company may install the required Gas Facilities to serve all lots at no cost to the developer. A Line Extension Contract - Type B (Investment Agreement) will be used as a guarantee that the developer will construct the required buildings used in the Allowable Investment calculation.
  - (d) The Company may require a General Agreement when gas therm usage or construction costs are unpredictable, or when structures or business operations are non-permanent.

# 3. CONDITIONS APPLICABLE TO BOTH CUSTOMER AND DEVELOPER

3.1 The Company reserves the right to cancel contracts if the applicant defers construction of a project for more than six months from the date of the contract, or has not prepared the location where the project is to be constructed to a condition sufficient for the Company to begin

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construction within six months of the date of the contract.

- 3.2 Relocation or abandonment of Company owned Gas Facilities will be at the expense of the applicant when required by the applicant.
- 3.3 The applicant may be required to reimburse the Company for the installation, extension, or abandonment of Gas Facilities if the terms of the signed agreement are not met.
- 3.4 The applicant shall indemnify and hold the Company harmless from liability for access for routine maintenance, inspections, and emergencies, or for injury to property caused by the installation of a Service.
- 3.5 The Company will install a single Service per applicant, unless the applicant requests an additional Service. The Company may provide an additional Service on a case-by-case basis, provided there is over one-hundred-feet between meter locations. Each Service must follow the provisions of this section. The Company may waive the one-hundred-foot requirement when an additional Service is required for Multifamily or Interruptible Snowmelt Service (Rate Schedules IS-R and IS-C).

### 4. ALLOWABLE INVESTMENT

- 4.1 The Allowable Investment for Services and Mains is determined by first calculating the estimated annual therm usage and then applying the Allowable Investment Factor per therm.
- 4.2 The estimated annual therm usage is calculated as follows:
  - (a) For residential applicants:

When natural gas is the primary heat source, calculate the estimated annual space heating therm usage by multiplying the square foot factor of 0.234 by the square footage of the home.

To the estimated annual space heating therm usage, add gas appliance annual therm usage estimates from the chart below, as applicable, to calculate the total estimated therm usage per year. Non-discretionary load appliances not on this list can be estimated by the Company on a case-by-case basis. In residential Developments where specific appliances are unknown at the time of calculation, the Company will base therm estimates on only the estimated annual space heating therm usage plus the water heater therm estimate.

Natural Gas Appliances Annual Therm Estimates	
Range	23
Seasonal Fireplace	50
Grill	15
Clothes Dryer	28
Water Heater	240

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(b) For commercial applicants:

The therm usage estimate will be determined by the Company on a case-by-case basis. The estimate will be based on the climate zone, the heated structure square footage, commercial property type, and applicable gas appliances.

4.3 To determine the Allowable Investment per applicant, multiply the estimated annual therm usage per applicant by the applicable Allowable Investment Factor below to calculate the Allowable Investment in dollars:

Allowable Investment Factors			
Customer Type Service Main Combined			
Residential	0.593	0.660	1.253
Commercial	0.445	0.495	0.940

- 4.4 The applicant agrees to install and activate gas appliances pursuant to the signed agreement(s) and the therm usage estimates used to determine the Allowable Investment.
- 4.5 The Company may calculate the Allowable Investment for applicants with structures or business operations which are non-permanent on a case-by-case basis.

# 5. PROJECT COST

- In the event the Company can defray any of the trench and backfill costs, for example by sharing a trench with other utilities, the cost reduction will be included in the Main extension cost or Service cost estimates.
- 5.2 The Service Line Project Cost estimate is determined by multiplying the on-property Service Line length by \$12.38 per foot.
- 5.3 The Main Extension Project Cost estimate is based on the Gas Facilities (excluding Services) required to serve the gas load of the requesting applicant. This includes but is not limited to Main, regulator stations, valves, stubs and Main fittings.
  - (a) The Company will provide a Project Cost estimate to the applicant prior to execution of an agreement.
  - (b) The estimate will exclude costs for Company Betterment.
  - (c) The Company includes construction overhead charges in the amount of 11.92%.
  - (d) The Main extension Project Cost will be divided by the number of estimated Service Points to calculate the Main extension Project Cost per applicant.

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# 6. OTHER PAYMENTS

- 6.1 The Company may require advanced payment from the applicant in the following situations:
  - (a) As a guarantee when proposed structures and Services are temporary in nature or the gas load is unpredictable.
  - (b) When the Company conducts pre-construction engineering studies to improve the accuracy of cost estimates.
- 6.2 If an advanced payment is collected according to Section 6.1(a), the Company will refund an amount equal to the Allowable Investment to customers who meet the terms outlined in the General Agreement for guaranteed usage. Refunds will not exceed the amount of the advanced payment.
- 6.3 If an advanced payment is collected according to Section 6.1(b), and the actual cost of installation is less than the estimated cost, the difference will be refunded to the customer.

### 7. VESTED INTEREST AND DEPOSIT REFUNDS

- 7.1 A customer or developer is eligible for refund of a payment made for Project Costs in excess of the Allowable Investment for Mains when additional Service Points, not used in the original calculation or in a previous refund calculation, connect to the Main extension within five years from installation.
  - (a) The Company will conduct annual reviews to determine if additional customers have connected to the Main and turned on gas service.
  - (b) Intermountain will take the steps outlined in Section 4 to calculate the Allowable Investment for Mains for each additional customer.
  - (c) The Company will refund to the original applicant or developer the equivalent of the Allowable Investment for Mains for each additional customer. Refunds will be made up to the total upfront payment, but not to exceed the Project Cost in excess of Allowable Investment for Mains.
- 7.2 When a project for which the Company collects a deposit as outlined in Section 2.2(a) is completed or at the end of five years, whichever is sooner, the Company will refund the deposit less any Project Cost in excess of Allowable Investment.

# 8. DEFINITION OF TERMS

- 8.1 <u>Allowable Investment</u> The portion of the cost of Gas Facilities funded by the Company (see Section 4 for Allowable Investment amounts).
- 8.2 <u>Allowable Investment Factor</u> A factor derived from the Present Value (PV) of the embedded cost of Mains and Services in the Company's approved tariff. The PV calculation uses the IPUC approved Weighted Average Cost of Capital as the discount rate over the life of the plant. Allowable Investment Factors for Service and Main are calculated separately (see Section 4.3).

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- 8.3 <u>Applicant</u> A person or entity requesting the Company to provide new, relocation or abandonment of Gas Facilities.
- 8.4 <u>Company Betterment</u> The portion of the cost estimate for the extension of Gas Facilities that provides a benefit to the Company, but is not required by the applicant, based on the applicant's estimated gas load.
  - (a) Betterments may include the installation of Gas Facilities required to ensure the integrity and continuity of the overall Gas Distribution System.
  - (b) If the applicant requesting a Main extension is located at the end of the Company's system, in a remote location, or as part of a larger Development, the costs to serve the applicant may not be considered Company Betterment.
- 8.5 <u>Customer</u> A person or entity that purchases natural gas as an energy source for their residential or commercial use.
- 8.6 <u>Development</u> Residential or commercial land developments, including subdivisions and coordinated home/business owner projects.
- 8.7 <u>Gas Facilities</u> Includes, but is not limited to, Mains, Services, regulator stations, valves, risers, tees and other appurtenances.
- 8.8 <u>General Agreement</u> A mutual agreement between the Company and the Applicant to secure the Company's investment for Facilities installed for unpredictable construction conditions, temporary structures, or unpredictable therm usage.
- 8.9 <u>Main</u> The underground pipelines, and required fittings, used for the distribution of natural gas upstream of Service Lines.
- 8.10 <u>Project Cost</u> The cost estimate of gas facilities required to serve the Applicant(s). It can include Main costs, Service costs, or both. Company Betterment costs are excluded.
- 8.11 Service Combination of the Service Line and the Service Point.
- 8.12 <u>Service Line</u> An underground gas pipeline and required fittings which extends downstream from a Main, or branches from an existing Service Line to the location of the meter.
- 8.13 <u>Service Point</u> The point at which the meter is located at the end of the Service Line and includes the meter, meter bar, regulator, shut-off valve, and Electronic Read Transmitter (ERT).

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# EXHIBIT NO. 3

# CASE NO. INT-G-20-01

# INTERMOUNTAIN GAS COMPANY

# MUSGROVE ENGINEERING RESIDENTIAL ENERGY CONSUMPTION STUDY

(13 pages)

Exhibit No. 3 Case No. INT-G-20-01 Intermountain Gas Company Page 1 of 13

# **Residential Energy Consumption Study**

For:

# **Intermountain Gas Company**

Boise, ID

December 17th, 2018

Prepared by:



MUSGROVE ENGINEERING, P.A.

In Association with:



In the Community to Serve®

# 1. Introduction

The following report outlines the results of a residential energy study performed for the Intermountain Gas Company (IGC). The purpose of the study was to compare and analyze a standard sized home's annual gas consumption in multiple cities located in IGC territory. Weather files from Boise and Pocatello were used to compare cities located in ASHRAE Climate Zone 5B & 6B, respectively. The whole building simulation program eQUEST was used to simulate annual energy consumption for the typical household. This program allows users to analyze buildings over a typical year.

# 2. Building Simulation

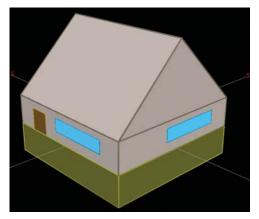
The following building parameters were used to create the energy models used in this study:

- An 1,800 ft² square house with walls oriented directly with the cardinal directions (with a crawlspace)
- An 1,800 ft² square house with walls oriented directly with the cardinal directions (with slab-on-grade floor)
- An 1,800 ft<sup>2</sup> square house with walls oriented directly with the cardinal directions (with a basement)
- A 3,604 ft² square house with walls oriented directly with the cardinal directions (with a second floor)
- A 20% window-to-wall ratio
- North facing exterior door
- 45° horizontal roof facing from North to South
- Code envelope factors were used

The southern Idaho cities that were used in this study include Boise, Nampa, Twin Falls, Soda Springs, Pocatello, Idaho Falls, and Hailey. Two different HVAC system types and three different building types were used to better match actual building practices for IGC's territory. The first HVAC system type used was an 80% efficient gas-fired furnace with an outdoor condensing unit. The second system type compared in this analysis was a 95% efficient gas-fired furnace with an outdoor condensing unit. The first building type compared was a typical household with a crawlspace. The second building type was a typical household with a slab-on-grade floor. The third building type was a typical household with a 9' tall basement. Figure-1, seen below, shows a screenshot of the eQUEST simulation model for the typical household with a slab-on-grade floor.

The same system types mentioned above for a single-story home were duplicated with a second floor. Figure-3, seen below, shows a screenshot of the eQUEST simulation model for the two-story residence model with a basement.





 $Figure \ 1-Single-Story \ with \ Basement \ eQUEST \ Screenshot$ 

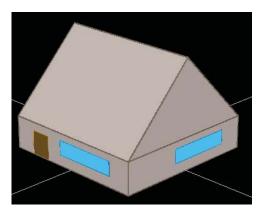
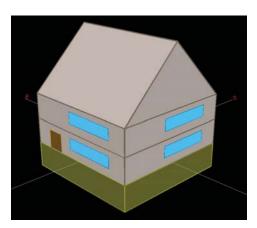


Figure 2 – Single-Story with Slab-on-Grade Floor eQUEST Screenshot



 $Figure \ 3-Two\text{-}Story \ eQUEST \ Screenshot$ 



Each building type was modeled with three different infiltration rates:  $^{1/_{3}}$  air changes per hour (ACH),  $^{1/_{2}}$  ACH, and  $^{3/_{4}}$  ACH. This actual infiltration rate found in buildings is very difficult to model since it is a reflection of construction quality and insulation type. By providing a range of infiltration rates it demonstrates the range of possible building construction values found in practice.

The simulations include envelope U-factors prescribed from the 2012 International Energy Conservation Code (IECC) and the 2015 IECC. The 2012 IECC is the current code used by the state of Idaho. The new code, 2015 IECC, will be adopted on January 1<sup>st</sup>, 2018 in Idaho. Each city may require more stringent code regulations. However, the minimal efficiency requirements will refer back to 2015 IECC. There are no notable changes in the energy code with respect to the envelope and mechanical systems used in this study. The 80% efficient gas-fired furnaces are still code minimum and will continue to be until approximately January 1<sup>st</sup>, 2020.

Table-1, seen below, outlines the building components for each building simulation. Table-2 outlines the envelope fenestrations and their associated insulation values. As mentioned above, the 2012 & 2015 IECC envelope requirements are similar for residential homes.

Total Area [ft2] Area Per Single-Two-**Exposure** Component **Exposure** [ft<sup>2</sup>] Story Story Windows N, S, E, W 74 296 592 Door Ν 20 20 20 Walls N, S, E, W 339 1,356 2,712 45° slope, N & S 1,273 2,546 2,546 Roof gable ends 450 900 900 **Floors** 1,800 1,800 3,600

Table 1 - Building Components

Table 2 - Building Construction Values

	IECC-201	12 & IECC-2015
Component	Climate Zone 5B	Climate Zone 6B
Windows	U-V	alue = 0.32
*Walls	R-13+5	R-13+10
Roof		R-49
Floor	R-10 at 2ft depth	R-10 at 4ft depth
Door	U-va	alue = 0.32

<sup>\*</sup>First value is cavity insulation, second is continuous insulation



The single-story building simulation model includes (3) occupants on the main floor and (1) occupant in the basement. The two-story building simulation model includes (2) occupants on the main floor, (1) occupant on the second story, and (1) occupant in the basement. A typical lighting power density of 1 watt/ft² was used to simulate lighting usage. An equipment power density of 0.3 watts/ft² was used to simulate plug loads inside the home. The following domestic equipment were included in each single-story model: a 40-gallon gas-fired water heater, with a 0.60 efficiency factor rated at 40-MBH, a 20-MBH gas-fired dryer, a 30-MBH gas-fired fireplace, a 13-MBH gas-fired range, and a 71-MBH gas-fired grille. The following domestic equipment were included in each two-story model: a 60-gallon gas-fired water heater, with a 0.60 efficiency factor rated at 60-MBH, a 20-MBH gas-fired dryer, a 30-MBH gas-fired fireplace, and a 13-MBH gas-fired range.

A constant heating setpoint of 68°F was used to control the HVAC system. The cooling system was not included in this study so as to only capture the thermal effects associated with heating.

# 3. Results

# **Infiltration Dependent Load Factors**

Thermal load factors were compared from each energy simulation to information provided by the IGC. The data provided by IGC is considered as the baseline data. The percent differences were calculated for each iteration which shows that as the energy code continues to get more stringent the calculated load factors continue to decrease. This is the biproduct of more a more efficient envelope. The percent differences for the single-story simulations at each infiltration rate are shown below in Table-3. These results do not include the domestic appliance gas consumption.

The simulated therm load factors differ from the baseline data by as much as 117%, 97%, and 75% for the  $^{1}/_{3}$ -ACH,  $^{1}/_{2}$ -ACH,  $^{8}/_{4}$ -ACH, respectively. The percent differences for the two-story simulations at each infiltration rate are shown below in Table-4. The simulated therm load factors differ from the baseline data by as much as 96%, 74%, and 50% for the  $^{1}/_{3}$ -ACH,  $^{1}/_{2}$ -ACH,  $^{8}/_{4}$ -ACH, respectively

These results show an improvement in thermal load factors for newer homes compared to the existing home data provided by IGC. Figure-4 & Figure-5, seen below, demonstrate the differences for the single-story simulations between current load factors and the modeled values for Climate Zone 5B and 6B, respectively. Figure-6 & Figure-7, seen below, demonstrate the differences for the single-story simulations between current load factors and the modeled values for Climate Zone 5B and 6B, respectively.



# **Average Load Factors**

All three load factors were averaged individually to produce a single measurable factor. This single factor can be applied to gas consumption for the entire state of Idaho. The load factors were based on weighted averages of the data from Table-3 & Table-4 using the assumptions outlined below. The equation to determine the average therm load can be found in Equation-1 & Equation-2, seen below, for Climate Zone 5B & Climate 6B, respectively.

Load Factor Averaging Assu	umptions Per Climate Zone
5B	6B
50% of buildings are single story,	50% of buildings are single story,
50% are two-story	50% are two-story
85% have a crawlspace, 5% have	20% have a crawlspace, 75% have
a basement, 10% have a slab	a basement, 5% have a slab
75% of homes have a standard-efficiency gas	40% of homes have a standard-efficiency gas
furnace, 25% have a high-efficient gas furnace	furnace, 60% have a high-efficient gas furnace

The 5B climate zone results in an average gas usage factor of 0.224 therms/ft²/yr, whereas the 6B climate zone results in 0.244 therms/ft²/yr. The overall gas usage factor was 0.234 therms/ ft²/yr. Table-5, seen below, shows the previously used Intermountain Gas Company annual average therm use per square foot compared to the updated averages. Sample data gathered by Intermountain Gas show actual gas usage factors of 0.227 therms/ft²/yr for climate zone 5B, and 0.216 therms/ft²/yr for climate zone 6B. Therefore, the estimated average overall gas usage factor of 0.234 therms/ft²/yr, using the  $^1$ /3-ACH model, is very similar to what actual consumption from customers.

The non-heating appliance gas usage was separated from the overall building heating consumption. Figure-8 and Table-6, seen below, show the average non-heating appliance gas consumption for Climate Zone 5B & 6B with the single-story and two-story model. The average non-heating appliance usage for a single-story home was 43.8-MMBH and 45.5-MMBH for the 5B Climate Zone and the 6B Climate Zone, respectively. The average non-heating appliance usage for a two-story home was 74.4-MMBH and 77.1-MMBH for the 5B Climate Zone and the 6B Climate Zone, respectively.

# 4. Summary

The Intermountain Gas Company provided therm load factors from actual data found in the field. This data was accumulated over several cities in their territory ranging from Nampa to Idaho Falls and as far North as Hailey. Several building simulations were performed to compare gas usage for a typical sized home with code construction values. Results show that new construction homes have much lower therm load factors than the existing values provided by IGC. The simulated therm load factors are only calculations and should be taken into consideration when compared to actual data.



Table 3 – Single-Story Thermal Load Factor Comparison

	А	В	С	D	Е	F	G	Н	ı	J
1	,,						actors [the			,
		Climate			1/3	%	1/2	%	3/4	%
2	Location	Zone	Building Type	Existing	ACH	Diff.	ACH	Diff.	ACH	Diff.
3			Basement w/ 80% Furnace	0.365	0.197	46%	0.220	40%	0.252	31%
4			Basement w/ 95% Furnace	0.365	0.166	55%	0.185	49%	0.212	42%
5	Boise	5B	Crawlspace w/ 80% Furnace	0.365	0.227	38%	0.261	28%	0.312	14%
6	Doise	36	Crawlspace w/ 95% Furnace	0.365	0.191	48%	0.220	40%	0.262	28%
7			Slab-on-grade w/ 80% furnace	0.365	0.262	28%	0.297	19%	0.347	5%
8			Slab-on-grade w/ 95% furnace	0.365	0.220	40%	0.249	32%	0.292	20%
9			Basement w/ 80% Furnace	0.318	0.197	38%	0.220	31%	0.252	21%
10			Basement w/ 95% Furnace	0.318	0.166	48%	0.185	42%	0.212	33%
11	Nampa	5B	Crawlspace w/ 80% Furnace	0.318	0.227	29%	0.261	18%	0.312	2%
12	Ναπιρα	36	Crawlspace w/ 95% Furnace	0.318	0.191	40%	0.220	31%	0.262	17%
13			Slab-on-grade w/ 80% furnace	0.318	0.262	17%	0.297	7%	0.347	9%
14			Slab-on-grade w/ 95% furnace	0.318	0.220	31%	0.249	22%	0.292	8%
15			Basement w/ 80% Furnace	0.355	0.197	44%	0.220	38%	0.252	29%
16			Basement w/ 95% Furnace	0.355	0.166	53%	0.185	48%	0.212	40%
17	Twin Falls	5B	Crawlspace w/ 80% Furnace	0.355	0.227	36%	0.261	26%	0.312	12%
18	I WIII Falls	36	Crawlspace w/ 95% Furnace	0.355	0.191	46%	0.220	38%	0.262	26%
19			Slab-on-grade w/ 80% furnace	0.355	0.262	26%	0.297	16%	0.347	2%
20			Slab-on-grade w/ 95% furnace	0.355	0.220	38%	0.249	30%	0.292	18%
21			Basement w/ 80% Furnace	0.319	0.252	27%	0.277	15%	0.313	2%
22			Basement w/ 95% Furnace	0.319	0.212	51%	0.233	37%	0.263	21%
23	Soda	6B	Crawlspace w/ 80% Furnace	0.319	0.282	11%	0.321	1%	0.378	19%
24	Springs	OD	Crawlspace w/ 95% Furnace	0.319	0.237	26%	0.270	16%	0.318	0%
25			Slab-on-grade w/ 80% furnace	0.319	0.295	8%	0.333	4%	0.391	22%
26			Slab-on-grade w/ 95% furnace	0.319	0.247	22%	0.280	12%	0.328	3%
27			Basement w/ 80% Furnace	0.320	0.252	27%	0.277	13%	0.313	2%
28			Basement w/ 95% Furnace	0.320	0.212	51%	0.233	37%	0.263	22%
29	Pocatello	6B	Crawlspace w/ 80% Furnace	0.320	0.282	12%	0.321	0%	0.378	18%
30	Pocatello	OB	Crawlspace w/ 95% Furnace	0.320	0.237	26%	0.270	16%	0.318	1%
31			Slab-on-grade w/ 80% furnace	0.320	0.295	8%	0.333	4%	0.391	22%
32			Slab-on-grade w/ 95% furnace	0.320	0.247	23%	0.280	13%	0.328	3%
33			Basement w/ 80% Furnace	0.376	0.252	33%	0.277	26%	0.313	20%
34			Basement w/ 95% Furnace	0.376	0.212	78%	0.233	61%	0.263	43%
35	Idaho	6 D	Crawlspace w/ 80% Furnace	0.376	0.282	25%	0.321	15%	0.378	1%
36	Falls	6B	Crawlspace w/ 95% Furnace	0.376	0.237	37%	0.270	28%	0.318	15%
37			Slab-on-grade w/ 80% furnace	0.376	0.295	22%	0.333	11%	0.391	4%
38			Slab-on-grade w/ 95% furnace	0.376	0.247	34%	0.280	26%	0.328	13%
39			Basement w/ 80% Furnace	0.459	0.252	45%	0.277	40%	0.313	32%
40			Basement w/ 95% Furnace	0.459	0.212	117%	0.233	97%	0.263	75%
41	   ⊔ailou	6B	Crawlspace w/ 80% Furnace	0.459	0.282	38%	0.321	30%	0.378	18%
42	Hailey	OD	Crawlspace w/ 95% Furnace	0.459	0.237	48%	0.270	41%	0.318	31%
43			Slab-on-grade w/ 80% furnace	0.459	0.295	36%	0.333	27%	0.391	15%
44			Slab-on-grade w/ 95% furnace	0.459	0.247	46%	0.280	39%	0.328	29%



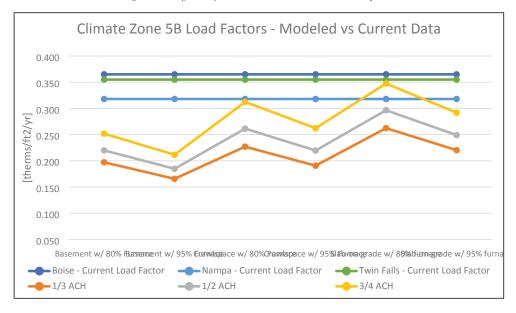


Figure 4 - Single-Story Climate Zone 5B Load Factors Compared



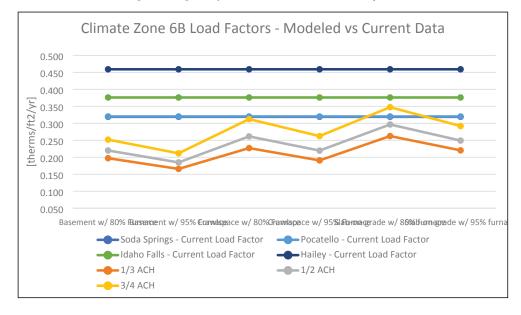




Table 4 – Two-Story Thermal Load Factor Comparison

	К	L	M	N	0	Р	Q	R	S	Т
1	· ·			14			actors [the			
		Climate			1/3	%	1/2	%	3/4	%
2	Location	Zone	Building Type	Existing	ACH	Diff.	ACH	Diff.	ACH	Diff.
3			Basement w/ 80% Furnace	0.365	0.223	39%	0.256	30%	0.303	17%
4			Basement w/ 95% Furnace	0.365	0.188	49%	0.215	41%	0.254	30%
5	Doice	5B	Crawlspace w/ 80% Furnace	0.365	0.237	35%	0.277	24%	0.335	8%
6	Boise	36	Crawlspace w/ 95% Furnace	0.365	0.199	45%	0.233	36%	0.281	23%
7			Slab-on-grade w/ 80% furnace	0.365	0.256	30%	0.295	19%	0.352	3%
8			Slab-on-grade w/ 95% furnace	0.365	0.215	41%	0.248	32%	0.296	19%
9			Basement w/ 80% Furnace	0.318	0.223	30%	0.256	19%	0.303	5%
10			Basement w/ 95% Furnace	0.318	0.188	41%	0.215	32%	0.254	20%
11	Namona	ED.	Crawlspace w/ 80% Furnace	0.318	0.237	25%	0.277	13%	0.335	5%
12	Nampa	5B	Crawlspace w/ 95% Furnace	0.318	0.199	37%	0.233	27%	0.281	12%
13			Slab-on-grade w/ 80% furnace	0.318	0.256	20%	0.295	7%	0.352	11%
14			Slab-on-grade w/ 95% furnace	0.318	0.215	32%	0.248	22%	0.296	7%
15			Basement w/ 80% Furnace	0.355	0.223	37%	0.256	28%	0.303	15%
16			Basement w/ 95% Furnace	0.355	0.188	47%	0.215	39%	0.254	28%
17	T		Crawlspace w/ 80% Furnace	0.355	0.237	33%	0.277	22%	0.335	6%
18	Twin Falls	5B	Crawlspace w/ 95% Furnace	0.355	0.199	44%	0.233	34%	0.281	21%
19			Slab-on-grade w/ 80% furnace	0.355	0.256	28%	0.295	17%	0.352	1%
20			Slab-on-grade w/ 95% furnace	0.355	0.215	40%	0.248	30%	0.296	17%
21			Basement w/ 80% Furnace	0.319	0.279	15%	0.314	1%	0.365	13%
22			Basement w/ 95% Furnace	0.319	0.234	36%	0.264	21%	0.307	4%
23	Soda	C.D.	Crawlspace w/ 80% Furnace	0.319	0.286	10%	0.330	3%	0.392	23%
24	Springs	6B	Crawlspace w/ 95% Furnace	0.319	0.240	25%	0.277	13%	0.330	3%
25			Slab-on-grade w/ 80% furnace	0.319	0.290	9%	0.336	5%	0.398	25%
26			Slab-on-grade w/ 95% furnace	0.319	0.244	24%	0.282	12%	0.334	5%
27			Basement w/ 80% Furnace	0.320	0.279	15%	0.314	2%	0.365	12%
28			Basement w/ 95% Furnace	0.320	0.234	37%	0.264	21%	0.307	4%
29	Doostalla	CD	Crawlspace w/ 80% Furnace	0.320	0.286	11%	0.330	3%	0.392	23%
30	Pocatello	6B	Crawlspace w/ 95% Furnace	0.320	0.240	25%	0.277	13%	0.330	3%
31			Slab-on-grade w/ 80% furnace	0.320	0.290	9%	0.336	5%	0.398	24%
32			Slab-on-grade w/ 95% furnace	0.320	0.244	24%	0.282	12%	0.334	5%
33			Basement w/ 80% Furnace	0.376	0.279	26%	0.314	16%	0.365	3%
34			Basement w/ 95% Furnace	0.376	0.234	61%	0.264	42%	0.307	23%
35	Idaho	CD	Crawlspace w/ 80% Furnace	0.376	0.286	24%	0.330	12%	0.392	4%
36	Falls	6B	Crawlspace w/ 95% Furnace	0.376	0.240	36%	0.277	26%	0.330	12%
37			Slab-on-grade w/ 80% furnace	0.376	0.290	23%	0.336	11%	0.398	6%
38			Slab-on-grade w/ 95% furnace	0.376	0.244	35%	0.282	25%	0.334	11%
39			Basement w/ 80% Furnace	0.459	0.279	39%	0.314	32%	0.365	20%
40			Basement w/ 95% Furnace	0.459	0.234	96%	0.264	74%	0.307	50%
41	Hailey	6B	Crawlspace w/ 80% Furnace	0.459	0.286	38%	0.330	28%	0.392	15%
42	папеу	OD	Crawlspace w/ 95% Furnace	0.459	0.240	48%	0.277	40%	0.330	28%
43			Slab-on-grade w/ 80% furnace	0.459	0.290	37%	0.336	27%	0.398	13%
44			Slab-on-grade w/ 95% furnace	0.459	0.244	47%	0.282	39%	0.334	27%



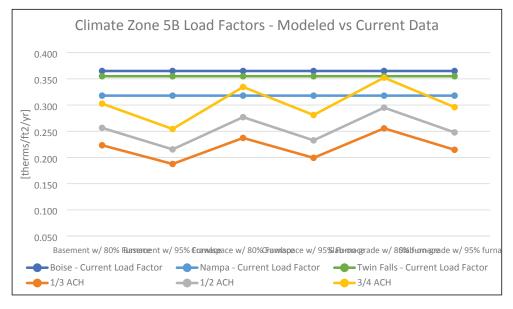


Figure 6 – Two-Story Climate Zone 5B Load Factors Compared



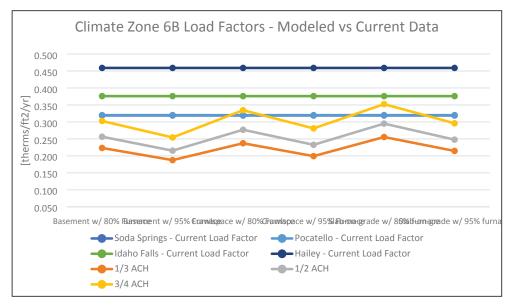




Table 5 – Annual Average Gas Usage Comparison

			ige Avg. s/ft²/yr]
	Climate	Previous	Updated
Location	Zone	Avg.	Avg.
Boise	5B	0.365	0.224
Nampa	5B	0.318	0.224
Twin Falls	5B	0.355	0.224
Soda Springs	6B	0.319	0.244
Pocatello	6B	0.320	0.244
Idaho Falls	6B	0.376	0.244
Hailey	6B	0.459	0.244

Average Therm Load Factor	0.234
- 0	

Figure~8-Non-Heating~Appliance~Annual~Gas~Consumption~Comparison

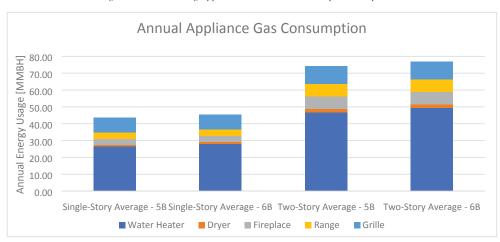
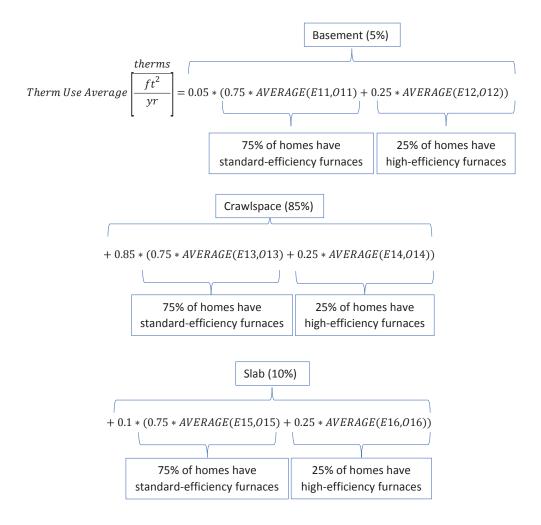


Table 6 – Annual Average Gas Usage Comparison

	Annua	l Average	Gas Usage Co	mparison	[MMBH	]
House Type and Climate Zone	Water Heater	Dryer	Fireplace	Range	Grille	Total
Single-Story Average - 5B	26.45	1.10	3.60	3.77	8.88	43.80
Single-Story Average - 6B	28.12	1.10	3.60	3.77	8.88	45.46
Two-Story Average - 5B	46.79	2.20	7.20	7.54	10.65	74.38
Two-Story Average - 6B	49.53	2.20	7.20	7.54	10.65	77.12





Equation 1 – Climate Zone 5B Average Therm Load Factor Equation





Equation 2 – Climate Zone 6B Average Therm Load Factor Equation



# **EXHIBIT NO. 4**

# CASE NO. INT-G-20-01

# INTERMOUNTAIN GAS COMPANY

ALLOWABLE INVESTMENT FACTORS

(4 pages)

# INTERMOUNTAIN GAS COMPANY Line Extension Allowable Investment Factors

Line No.	Description	R	esidential	С	ommercial
	(a)		(b)		(c)
1	Services Allowable Investment Factor				
2	Service Line Extension Embedded Cost per Therm:				
3	FERC Account 380 <sup>[1]</sup>	\$	0.039146	\$	0.029350
4	FERC Account 385 <sup>[2]</sup>		0.002953		0.002214
5	Total	\$	0.042099	\$	0.031564
6	3-Year Compound Inflation Factor <sup>[3]</sup>		106.2%		106.2%
7	Service Line Extension Embedded Cost per Therm (Line 5 times Line 6)	\$	0.044703	\$	0.033516
8	Weighted Asset Life:				
9	FERC Account 380 - Asset Life <sup>[4]</sup>		50		50
10	FERC Account 380 - Embedded Cost per Therm <sup>[1]</sup>	\$	0.039146	\$	0.029350
11	Weighting Factor (Line 9 times Line 10)		1.957286		1.467481
12	FERC Account 385 - Asset Life <sup>[5]</sup>		37		37
13	FERC Account 385 - Embedded Cost per Therm <sup>[2]</sup>	\$	0.002953	\$	0.002214
14	Weighting Factor (Line 12 times Line 13)	<u> </u>	0.109265		0.081922
15	Weighted Asset Life (Sum of Lines 11 and 14 divided by Line 5)		49.1		49.1
16	Weighted Average Cost of Capital [6]		7.30%		7.30%
17	Services Allowable Investment Factor (\$/therm) <sup>[7]</sup>	\$	0.593	\$	0.445
18	Mains Allowable Investment Factor				
19	Main Line Extension Embedded Cost per Therm:				
20	FERC Account 374 <sup>[8]</sup>	\$	0.000167	\$	0.000125
21	FERC Account 376 <sup>[9]</sup>		0.043195		0.032386
22	FERC Account 378 <sup>[10]</sup>		0.002499		0.001874
23	Total	\$	0.045862	\$	0.034385
24	3-Year Compound Inflation Factor <sup>[3]</sup>		106.2%		106.2%
25	Main Line Extension Embedded Cost per Therm (Line 23 times Line 24)	\$	0.048699	\$	0.036512
26	Weighted Asset Life:				
27	FERC Account 374 - Asset Life <sup>[11]</sup>		48		48
28	FERC Account 374 - Embedded Cost per Therm <sup>[8]</sup>	\$	0.000167	\$	0.000125
29	Weighting Factor (Line 27 times Line 28)		0.008029		0.006020
30	FERC Account 376 - Asset Life <sup>[12]</sup>		65		65
31	FERC Account 376 - Embedded Cost per Therm <sup>[9]</sup>	\$	0.043195	\$	0.032386
32	Weighting Factor (Line 30 times Line 31)		2.807672		2.105061
33	FERC Account 378 - Asset Life <sup>[13]</sup>		42		42
34	FERC Account 378 - Embedded Cost per Therm <sup>[10]</sup>	\$	0.002499	\$	0.001874
35	Weighting Factor (Line 33 times Line 34)	<u> </u>	0.104975		0.078705
36	Weighted Asset Life (Sum of Lines 29, 32 and 35 divided by Line 23)		63.7		63.7
37	Weighted Average Cost of Capital <sup>[6]</sup>		7.30%		7.30%
38	Mains Allowable Investment Factor (\$/therm) <sup>[14]</sup>	\$	0.660	\$	0.495

# NOTES

<sup>[1]</sup> See Exhibit No. 4, Page 3, Lines 6 and 18, Column (g)

<sup>[2]</sup> See Exhibit No. 4, Page 3, Lines 11 and 23, Column (g)

<sup>[3]</sup> See Exhibit No. 4, Page 4, Line 4, Column (n)

<sup>[4]</sup> See Exhibit No. 4, Page 3, Lines 6 and 18, Column (b)

<sup>[5]</sup> See Exhibit No. 4, Page 3, Lines 11 and 23, Column (b)

<sup>&</sup>lt;sup>[6]</sup>Case No. INT-G-16-02, Order No. 33757

 $<sup>^{[7]}</sup>$ The present value of Line 7 discounted by the weighted average cost of capital on Line 16 over the weighted life of the assets on Line 15

<sup>[8]</sup> See Exhibit No. 4, Page 3, Lines 2 and 14, Column (g)

<sup>[9]</sup> See Exhibit No. 4, Page 3, Lines 4 and 16, Column (g)

<sup>[10]</sup> See Exhibit No. 4, Page 3, Lines 5 and 17, Column (g)

<sup>[11]</sup> See Exhibit No. 4, Page 3, Lines 2 and 14, Column (b)

<sup>[12]</sup> See Exhibit No. 4, Page 3, Lines 4 and 16, Column (b) [13] See Exhibit No. 4, Page 3, Lines 5 and 17, Column (b)

<sup>[14]</sup> The present value of Line 25 discounted by the weighted average cost of capital on Line 37 over the weighted life of the assets on Line 36

# **INTERMOUNTAIN GAS COMPANY Class Line Extension Embedded Costs**

Line No.	Description	Total Company	Residential	C	Commercial
	(a)	(b)	(c)		(d)
1	Line Extension Costs Embedded in Current Rates				
2	Case No. INT-G-16-02 Commission Ordered Depreciation [1]	\$ 20,859,316			
3	Case No. INT-G-16-02 Commission Ordered Operating Income at 7.3% [1]	17,193,456			
4	Tax Gross-Up <sup>[2]</sup>	6,318,423			
5	Line Extension Embedded Costs (Sum of Lines 2 - 4)	\$ 44,371,195			
6	Class Allocation of Line Extension Embedded Costs				
7	Case No. INT-G-16-02 Proposed Distribution Rate Base [3]	\$ 187,836,950			
8	Case No. INT-G-16-02 Commission Ordered Rate Base [1]	235,526,788			
9	Proposed Distribution Rate Base Percentage (Line 7 divided by Line 8)	79.75%			
10	Case No. INT-G-16-02 Class Base Revenue Requirement [4]		\$ 57,675,297	\$	22,067,933
11	Case No. INT-G-16-02 Total Base Revenue Requirement [1]		89,376,264		89,376,264
12	Class Base Revenue Requirement Percentage (Line 10 divided by Line 11)		64.53%		24.69%
13	Class Line Extension Embedded Costs [5]		\$ 22,835,445	\$	8,737,382

NOTES
[1] Order No. 33757, Attachment A

 $<sup>^{[2]}</sup>$  The Tax Gross-Up was computed using the gross revenue conversion factor from Case No. GNR-U-18-01, Exhibit No. 5

<sup>[3]</sup> Case No. INT-G-16-02, Exhibit No. 20, Page 3

<sup>&</sup>lt;sup>[4]</sup> Order No. 33757, 2nd Errata

 $<sup>^{[5]}</sup>$  Line 5, Column (b) times Line 9, Column (b) times Line 12 Columns (c) and (d), respectively.

# Line Extension Embedded Cost per Therm by Distribution Account INTERMOUNTAIN GAS COMPANY

		Total Company Depreciation	Total Company Distribution Plant in		Class Line Extension Embedded Cost by	Class Billing Determinants	Class Line Extension Embedded Cost per Therm
Line No.	Description	Life <sup>[1]</sup>	Service <sup>[2]</sup>	% by Account	Account	(Therms) <sup>[4]</sup>	by Account <sup>is</sup>
	(a)	(q)	(c)	(p)	(e)	(t)	(6)
_	Residential						
7	FERC Account 374 - Dist Land & Land Rights	48	\$ 637,754	0.16%	\$ 35,724	213,576,738	\$0.000167
က	FERC Account 375 - Dist Structures & Improvements	45	18,864	0.00%	1,057	213,576,738	\$0.000005
4	FERC Account 376 - Dist Mains	92	164,694,644	40.40%	9,225,436	213,576,738	\$0.043195
2	FERC Account 378 - Dist Meas & Reg Sta Equip - Gen	42	9,529,795	2.34%	533,815	213,576,738	\$0.002499
9	FERC Account 380 - Dist Services	20	149,255,628	36.61%	8,360,614	213,576,738	\$0.039146
7	FERC Account 381 - Dist Meters	42	44,853,911	11.00%	2,512,510	213,576,738	\$0.011764
œ	FERC Account 382 - Dist Meter Installations	42	13,955,058	3.42%	781,698	213,576,738	\$0.003660
6	FERC Account 383 - Dist House Regulators	42	6,410,602	1.57%	359,092	213,576,738	\$0.001681
10	FERC Account 384 - Dist House Regulator Install	42	7,047,749	1.73%	394,782	213,576,738	\$0.001848
1	FERC Account 385 - Dist Ind Reg Sta	37	11,259,697	2.76%	630,716	213,576,738	\$0.002953
12	Total		\$ 407,663,702	100.00%	\$ 22,835,445		
13	Commercial						
14	FERC Account 374 - Dist Land & Land Rights	48	\$ 637,754	0.16%	\$ 13,669	108,995,228	\$0.000125
15	FERC Account 375 - Dist Structures & Improvements	45	18,864	0.00%	404	108,995,228	\$0.00004
16	FERC Account 376 - Dist Mains	92	164,694,644	40.40%	3,529,870	108,995,228	\$0.032386
17	FERC Account 378 - Dist Meas & Reg Sta Equip - Gen	42	9,529,795	2.34%	204,250	108,995,228	\$0.001874
18	FERC Account 380 - Dist Services	20	149,255,628	36.61%	3,198,969	108,995,228	\$0.029350
19	FERC Account 381 - Dist Meters	42	44,853,911	11.00%	961,346	108,995,228	\$0.008820
20	FERC Account 382 - Dist Meter Installations	42	13,955,058	3.42%	299,096	108,995,228	\$0.002744
21	FERC Account 383 - Dist House Regulators	42	6,410,602	1.57%	137,397	108,995,228	\$0.001261
22	FERC Account 384 - Dist House Regulator Install	42	7,047,749	1.73%	151,053	108,995,228	\$0.001386
23	FERC Account 385 - Dist Ind Reg Sta	37	11,259,697	2.76%	241,327	108,995,228	\$0.002214
24	Total		\$ 407,663,702	100.00%	\$ 8,737,382		

NOTES

[1] Case No. INT-G-17-06, Order No. 34013, Exhibit A, Page 2

[2] Case No. INT-G-16-02, Exhibit No. 21, Page 1

[3] Column (d) times Exhibit No. 4, Page 2, Line 13, Columns (c) and (d), respectively (d) Case No. INT-G-16-02, Order No. 33879

[5] Column (e) divided by Column (f)

# INTERMOUNTAIN GAS COMPANY U.S. Inflation Data<sup>[1]</sup>

Inflation Factor	(u)	101.9% [2]	102.1% [2]	102.1% [2]	106.2% [3]
Dec	(m)	1.8%	2.2%		
	())	1.7%	2.2%		
Oct	(k)	1.8%	2.1%		
Sep	(D	1.7%	2.2%		
Aug	(i)	1.7%	2.2%		
Jul	(h)	1.7%	2.4%		
Jun	(a)	1.7%	2.3%		
May	(f)	1.7%	2.2%	2.0%	
Apr	(e)	1.9%	2.1%	2.1%	
Mar	(p)	2.0%	2.1%	2.0%	
	(0)	2.2%	1.8%	2.1%	
	(q)	2.3%	1.8%	2.2%	
Year	(a)	2017	2018	2019	3-Year Compound Inflation Factor
Line No.		-	7	က	4

NOTES

<sup>&</sup>lt;sup>[11]</sup> Inflation data obtained from the Bureau of Labor Statistics website: https://data.bls.gov/timeseries/CUUR0000SA0L1E?output\_view=pct\_12mths <sup>[2]</sup> One plus the average of Columns (b) - (m) <sup>[3]</sup> Column (n), Line 1 times Line 2 times Line 3

# EXHIBIT NO. 5

# CASE NO. INT-G-20-01

# INTERMOUNTAIN GAS COMPANY

SERVICE LINE COST PER FOOT

(1 page)

# INTERMOUNTAIN GAS COMPANY Average Cost per Foot for Service Lines

	Description	2015	2016	2017	Average
	(a)	(q)	(c)	(p)	(e)
FERC A	C Account 380 Additions	\$5,625,274	\$ 7,790,222	\$8,760,958	\$ 22,176,453
ш	Feet Installed	533,785	602,943	654,275	1,791,003
	Cost/Foot	\$ 10.54	\$ 12.92	\$ 13.39	\$ 12.38

# CUSTOMER NOTICE CASE NO. INT-G-20-01 INTERMOUNTAIN GAS COMPANY



February 3, 2020

Name Address City, State

Dear Builder, Developer, and/or HVAC Contractor:

Intermountain Gas Company appreciates your business! It has been our pleasure to provide clean, affordable natural gas service to customers across southern Idaho for nearly 70 years. Partners like you are a critical component in our ability to continue to ensure the safe, reliable delivery of natural gas to our customers in the future.

An important part of providing new natural gas service is our Line Extension tariff which governs the amount of investment Intermountain is allowed to make in a line extension project. Intermountain's tariff has not been updated since 1986, so it is time to ensure it accurately reflects today's conditions. Intermountain filed an application with the Idaho Public Utilities Commission to update the Line Extension tariff and has proposed an effective date of April 1, 2020 for the changes.

Although the impact of the proposed changes may vary greatly depending on the specific project, the proposed allowed investment by Intermountain for projects that combine both a main and service extension would increase slightly. The increase in the allowance may decrease the upfront payment required on main and service extension projects. The proposed change in allowance is due in large part to the increase in costs over time and the decrease in the return allowed Intermountain by the Idaho Public Utilities Commission. The table below provides an example of the increase in allowance that may be seen on an **average** project:

Example Allowable Investment Impact for Main and Service Combination Projects						
Rate Schedule		rent Average Allowance		Proposed Average Allowance		
RS - Residential Service	\$	744	\$	887		
GS -1 - General Service	\$	1,624	\$	1,692		

For projects that include only a service extension, the average footage that will be allowed without any investment by the customer has declined significantly. Because the average usage per customer has decreased over time, homes are not using as much natural gas as they have in the past. This reduces the amount of future revenue that would help pay for investments over time. This reduction in future revenue will, in some cases, require a non-refundable payment



before the project begins. The table below shows the current and proposed average footage allowed without investment by the customer:

Example of Service Line Footage Allowance Impact						
	Current Average Allowance	Proposed Average Allowance				
Rate Schedule	(Footage)	(Footage)				
RS - Residential Service	196 ft.	34 ft.				
GS -1 - General Service	164 ft.	65 ft.				

If you have questions on your particular project, please contact me at the number listed below.

As previously stated, the information above is based on an estimated average project. The actual allowed investment, footage, and resulting cost to the customer, as well as the way in which that compares to the current tariff, will vary by project.

Intermountain's application is a proposal and is subject to public review and a decision by the Idaho Public Utilities Commission before it would become effective. If the tariff is approved as filed, these proposed changes would only be applicable to projects contracted on or after April 1, 2020. A copy of the application is available for public review at the IPUC offices, its homepage (<a href="www.puc.idaho.gov">www.puc.idaho.gov</a>), and Intermountain's website (<a href="www.intgas.com/rates-services/commission-filings/">www.intgas.com/rates-services/commission-filings/</a>). If you would like to submit comments on this proposed tariff revision you can do so by going to the Commission website. The case number for this application is INT-G-20-01.

Sincerely,

Cheryl Imlach
Manager, Energy Services
Cheryl.Imlach@intgas.com
(208) 377-6179