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Attorneys for Intermountain Gas Company

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION) CASE NO. INT-G-22-07
OF INTERMOUNTAIN GAS COMPANY)
FOR AUTHORITY TO INCREASE ITS)
RATES AND CHARGES FOR NATURAL)
GAS SERVICE IN THE STATE OF IDAHO)
_____)
)

UPDATED DIRECT TESTIMONY OF HART GILCHRIST FOR
INTERMOUNTAIN GAS COMPANY

March 9, 2023

1 **Q. Please state your name and business address.**

2 A. My name is Hart Gilchrist. My business address is 555 South Cole Road, Boise, Idaho
3 83709.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am the Vice President of Safety, Process Improvement and Operations Systems of
6 Intermountain Gas Company (“Intermountain” or “Company”), Cascade Natural Gas
7 Corporation, and Montana-Dakota Utilities Co., all subsidiaries of MDU Resources
8 Group, Inc., as well as Great Plains Natural Gas Co. (a division of Montana-Dakota
9 Utilities Co.) collectively the MDU Utilities Group.

10 **Q. Mr. Gilchrist, would you please summarize your educational and professional**
11 **experience.**

12 A. I have been working in the natural gas industry and at Intermountain for over 28 years. I
13 have been the Vice President of Safety, Process Improvement & Operations Systems
14 since July of 2018. My responsibilities include Safety, Technical Training, Safety
15 Management Systems, Work & Asset Management, GIS, and Quality Management. Prior
16 to this role I was the Vice President of Operations for Intermountain and have held
17 numerous positions in operations for the company.

18 I have bachelor’s degrees in finance and marketing from the University of Idaho
19 and an MBA from Boise State University. I serve or have served on the United Way of
20 Treasure Valley board of directors, Boise State University College of Business and
21 Economics Advisory Board, College of Western Idaho Foundation Board, American Gas
22 Association Managing Committee, Northwest Gas Association Board and Boise Chamber
23 of Commerce Advisory Board.

1 **Q. What is the purpose of your testimony in this proceeding?**

2 A. I will provide support for the Company's Pipeline Safety Management System ("PSMS")
3 and related Work and Asset Management system.

4 **Q. Why is the PSMS Needed?**

5 A. Safety Management Systems have been successfully adopted by many high-risk
6 industries like airline, chemical, and nuclear. In 2015, the pipeline industry completed
7 the development of a framework for Pipeline Safety Management System ("Pipeline
8 SMS") designed specifically for pipeline operators. Created at the recommendation of the
9 U.S. National Transportation Safety Board ("NTSB"), this American Petroleum Institute
10 ("API") Recommended Practice ("RP") was developed by pipeline operators, for pipeline
11 operators.

12 API RP 1173 is the culmination of a two-year effort by pipeline operators, state
13 and federal regulators, and other engaged stakeholders collaborating to advance to the
14 goal of zero incidents. Along with ensuring that safety is the top priority, the practice has
15 been recognized by both NTSB and the Pipeline and Hazardous Material Safety
16 Administration ("PHMSA") for the positive contribution it has made in furthering safe
17 operations throughout the industry.

18 The benefit of the program to Intermountain's customers and all stakeholders is to
19 advance the safe operation of the natural gas system.

20 **Q. Can you describe the Company's PSMS?**

21 A. The Company's PSMS is modeled from the pipeline industry recommended practice
22 of RP 1173. Intermountain has internally branded the program Achieving Continuous
23 Excellence ("ACE"). The program is based on the Plan-Do-Check-Adjust ("PDCA")

1 continuous improvement framework designed to proactively identify pipeline safety risks
2 and take action to mitigate the risks. Intermountain is fully committed to the ACE
3 program to proactively and continuously improve pipeline safety.

4 **Q. What is the expected cost of the PSMS?**

5 A. The costs vary from year-to-year but are primarily internal labor costs to support the
6 program. The company has a 5-person department dedicated to the advancement of the
7 program and support of the overall utilities' efforts. Intermountain's share of these labor
8 costs are allocated proportionally.

9 **Q. How mature is the program and what are the results thus far?**

10 A. The program has reached a level three maturity (fully implemented) out of five levels.
11 The maturity model is based upon an industry collaborative Pipeline SMS Maturity
12 Model. To gain a level three maturity, Intermountain has successfully implemented the
13 program and has scored the program based on the 10 essential elements and 256 shall
14 statements associated with the RP API 1173. The 10 essential elements are:

- 15 1. Leadership and Management Commitment
- 16 2. Stakeholder Engagement
- 17 3. Risk Management
- 18 4. Operational Controls
- 19 5. Incident Investigation, Evaluation, and Lessons Learned
- 20 6. Safety Assurance
- 21 7. Management Review and Continuous Improvement
- 22 8. Emergency Preparedness and Response
- 23 9. Competency Awareness and Training

1 10. Documentation and Record Keeping

2 Within each of these elements, Intermountain has compared its implemented
3 program to a subset of shall statements to determine the maturity of the program. This
4 translates into a fully implemented program.

5 In terms of results, one important part of the program is the identification and
6 management of risks. To highlight an example, Intermountain has identified inaccurate
7 operations systems data as a risk to the company. The construction process is on paper
8 today and requires field personnel to fill out records accurately and in turn the back-office
9 manually enters the information on paper into key operations systems. This process is
10 prone to errors and delays. The Company is taking multiple steps to mitigate this risk,
11 with one of those steps being the implementation of Intermountain’s Work and Asset
12 Management (“Maximo”) system, described later in my testimony, and electronic
13 construction processes. The process to collect field data becomes driven by smart forms,
14 GPS, barcode scanning etc. Capturing data at the source accurately and then
15 automatically integrating it into key operational systems, greatly improves the process.
16 This translates into employees being able to make safe operating decisions in the field by
17 having accurate and timely field maps and information.

18 The ACE program monitors risks and works with stakeholders to reduce risks
19 through process, technology, quality, and operational control improvements to name a
20 few. The program not only improves the safe operation of the system but it also assists
21 with making processes smarter and more efficient.

22 **Q. Please describe Intermountain’s Work and Asset Management System (Maximo).**

1 A. Maximo is an integrated software solution storing assets, work orders, work order
2 tracking information, and maintenance schedules. Intermountain is in the second phase of
3 a three-phase and five-year implementation of Maximo. The first phase was for
4 maintenance work and was implemented in 2019-2021. The maintenance phase included
5 equipment maintenance and all gas compliance maintenance (e.g., corrosion control, leak
6 survey, atmospheric corrosion survey, patrolling, measurement, and equipment
7 maintenance). The second phase is construction and is being implemented in 2022-2024.
8 This will include the full lifecycle of construction – initiate, design, estimate,
9 plan/schedule, construct, close out and documentation of construction work. This will be
10 a full electronically driven construction process integrated to core systems, reducing
11 touchpoints and data entry. The final phase is the implementation of transmission
12 electric, electric generation and environmental and is scheduled for 2025.

13 **Q. Why is Maximo Needed?**

14 A. Maximo provides the following benefits:

- 15 • Aligns operations business processes across the enterprise.
- 16 • Replaces fragmented and unintegrated operations technology systems and processes
17 with one unified work and asset management system which improves efficiency of
18 implementation and support.
- 19 • Reduces touch points, data entry and redundancy.
- 20 • Gains enterprise-wide insight into asset tracking, construction, maintenance,
21 compliance, and costs. Drives consistent workflows across the enterprise, improving
22 work product results.

- 1 • Improves the user experience with consistent field data entry technology, lowering
2 training needs, and limiting confusion and errors.
- 3 • Improves overall quality using smart forms, integrated solutions, high accuracy GPS,
4 bar code scanning and electronic workflows.

5 **Q. What is the expected cost of the Work and Asset Management project?**

6 A. The estimated cost of the Work and Asset Management system for gas and electric is
7 approximately \$33.07 million over a five-year period. The in-service cost portion
8 allocated to Intermountain is approximately \$4.15M through the end of 2022.

9 **Q. What alternatives did the Company consider when deciding to implement Maximo?**

10 A. The company did due diligence when selecting Maximo. An exploratory team was
11 formed in 2017 and evaluated the implementation of work and asset management systems
12 across the gas and electric utility industry. It was determined Maximo was the best
13 choice because it is a lower cost solution, the system integrates well to disparate systems,
14 and Maximo is mature and proven compared to other Work and Asset Management
15 systems. The company visited other utilities to learn best practices for implementing
16 Work and Asset Management systems. This information was used to develop the phased
17 approach and to leverage internal resources to develop expertise to support the system
18 going forward. The strategy has worked thus far through the successful, on time and on
19 budget implementation of Phase I.

20 **Q. What are the future plans for Maximo?**

21 A. Maximo and supporting technology stacks will provide improvements to overall
22 operations through electronic and automated work processes for maintenance,
23 compliance and construction work. The system will be implemented, integrated,

1 enhanced, and upgraded over the course of the coming years. These improvements will
2 ensure the system is performing and meeting the requirements of the business to enable
3 the safe operation of the gas distribution system.

4 **Q. Does this conclude your direct testimony?**

5 A. Yes, it does.