BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE APPLICATION OF DOMINION ENERGY UTAH FOR APPROVAL OF A NATURAL GAS CLEAN AIR PROJECT AND FUNDING FOR THE INTERMOUNTAIN ASSESSMENT CENTER	Docket No. 19-057-33

DIRECT TESTIMONY OF MICHAEL A. ORTON

FOR DOMINION ENERGY UTAH

DEU Confidential Exhibit 1.0

December 31, 2019

TABLE OF CONTENTS

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Michael A. Orton. My business address is 333 South State Street, Salt Lake City, Utah.

Q. By whom are you employed, and what is your position?

A. I am employed by Questar Gas Company dba Dominion Energy Utah (Dominion Energy or the Company) as the Manager of Energy Efficiency. I am responsible for overseeing the Company's regulatory, marketing, and program administration for the energy efficiency programs and initiatives on behalf of the Company. My qualifications are attached as DEU Exhibit 1.01.

Q. You have attached DEU Exhibit 1.01 and 1.02 to your prefilled Direct Testimony. Were these documents prepared by you or under your direction?

A. Yes, they were.

Q. What is the purpose of your testimony in this Docket?

A. The purpose of my testimony is to: 1) introduce the witnesses in this docket; 2) introduce a proposed natural gas air quality project, more fully explained in the testimonies of Dr. Kody M. Powell and Dr. Kerry Kelly; 3) support the Company's proposed partnership with the University of Utah Department of Chemical Engineering and Intermountain Industrial Assessment Center (IIAC) as described in the Application; and 4) propose a filing and reporting structure for future utility-created natural gas clean air programs.

Q. Who are the Company's witnesses in this docket?

A. The Company has four witnesses in this docket. In addition to myself, Dr. Kody M. Powell will offer evidence in support of the proposed Natural Gas Clean Air combined

heat and power (CHP) project described in the Application. Dr. Kerry Kelly will offer evidence of how CHP can positively affect Utah's air quality and compare the costs of the proposed project to the air pollution control strategies that are currently being implemented in the State of Utah. Finally, Kelly B Mendenhall will discuss the Company's planned balancing account and the rate impact of the Company's proposal.

II. NATURAL GAS AIR QUALITY PROJECT

Q. Please describe the Company's proposed Natural Gas Air Quality project.

A. The Company proposes to provide an incentive to [redacted], Utah (the Customer), to replace existing natural gas boilers with a CHP unit before the end of the useful life of the boiler. The primary purpose of the CHP unit is to use the heat generated from the combustion of natural gas to [redacted]. This project would also include the installation of scrubbing equipment to further reduce emissions that contribute to local air quality issues.

Q. How would the proposed Natural Gas Air Quality project impact air quality?

A. While the scrubbing equipment would be a benefit, the primary air quality gains would be achieved through the higher levels of efficiency of the new equipment. The CHP unit would replace several existing boilers and would operate at a higher level of efficiency. The CHP unit would also produce electricity at an above-grid level of efficiency. Greater detail on efficiency gains can be found in Dr. Powell's testimony. The result of more

efficient equipment is less energy required to complete the same manufacturing process, while resulting in fewer generation or combustion byproducts.

Additional air quality benefits would be achieved through the power generation by replacing a small percentage of Utah's coal-heavy electricity mix with 100% natural gas at the project site. Because the electricity is produced on site it would also increase efficiency by eliminating line loss costs. The estimated quantities of eliminated emissions resulting from this project are discussed in Dr. Powell's testimony.

Q. What are the primary emissions that impact local air quality?

A. The main causes of local air quality issues are seasonal. In the winter, air quality is negatively impacted by particulate matter 2.5 (PM 2.5). In the summer, air quality is worsened by ozone (O_3). Those emissions can be directly created through generation or combustion, but can also be formed when precursor elements (e.g. sulfur dioxide SO_2, nitrogen oxides NO_x) are emitted through those same actions and join with other precursors already in the air. It is these types of emissions that the Company is seeking to reduce through the Natural Gas Air Quality project. A more detailed discussion of air quality and the resulting impact from the proposed Natural Gas Air Quality project is discussed in Dr. Kelly's testimony.

Q. What is the estimated total cost of the proposed Natural Gas Air Quality project?

A. Total costs for the proposed Customer system improvements related to this project are estimated to be [redacted]. The project is expected to take up to three years to complete.

Q. What is the proposed incentive of the Natural Gas Air Quality project?

A. The Company proposes to incent the project at the lesser of [redacted] or $13.5 million of the total project cost.

Q. How does the Company propose to pay the incentive?

A. Beginning in 2020, the Company proposes to pay the incentive, directly to the Customer, over three years in annual installments of $4.5 million. The Company further proposes to not seek to include the 2020 incentive in customer rates until a contract has been signed between the Customer and their chosen installation contractor.

Q. Would the system upgrades be completed by the Customer without the proposed incentive?

A. No. The Customer has indicated that the estimated payback (resulting from energy savings) of 8.4 years falls outside of its internal investment threshold. However, the Customer has undertaken similar system improvements at some of its other facilities when incentives have been available and payback years have been reduced. The Company has a verbal indication from the Customer that it will move forward with this project if the incentive is approved by the Commission.

Q. How did the Company identify the proposed Natural Gas Air Quality project and other potential projects?

A. Beginning in early 2019, the Company started conversations with local stakeholders in search of air quality-related projects where the inclusion of natural gas would be beneficial. One of the early stakeholders identified was the IIAC in the Department of Chemical Engineering at the University of Utah. Headed by Kody Powell, Ph.D. (Director) and Julie Sieving, P.E. (Co-Director), the IIAC has a history of performing industrial audits and identifying high-impact energy efficiency projects that, if undertaken, have the additional benefit of reduced emissions. The proposed project was

identified through the IIAC as well as several other smaller projects where the businesses are not as far along in committing to project implementation.

Q. Are there other companies in Utah that could install similar systems and result in similar air quality benefits?

A. There are several other companies and potentially smaller projects in Utah where air quality would be benefited by the installation of a CHP system. The Company is currently exploring those projects and may pursue similar incentives through the regulatory process in the future. However, the project proposed here is of a sufficient complexity, and the potential air quality benefits so great, as to make it a clear candidate for an incentive.

Q. Has the Company offered to pursue a similar incentive for all similarly-situated potential partners and recipients?

A. No other similarly-situated potential partners and recipients have been identified to date, but the Company anticipates that, through the proposed partnership with the IACC, it will identify other similarly-situated recipients and would pursue Commission approval for those projects.

III. PARTNERSHIP WITH THE UNIVERSITY OF UTAH DEPARTMENT OF CHEMICAL ENGINEERING & IIAC

Q. Please describe the Company's proposal to partner with the University of Utah Department of Chemical Engineering and IIAC in the proposed Natural Gas Air Quality project and other potential projects?

A. The Company is proposing to partner with the University of Utah's Department of Chemical Engineering for the IIAC to provide services to aid in the investigation, analysis and implementation research and development of efficiency technologies as well

as other possible technology programs. The relationship between the Company and the University of Utah would be beneficial primarily in two ways. First, the Company would leverage existing, effective infrastructure and local technical expertise through the IIAC, which currently receives its funding through the United States Department of Energy (DOE). The IIAC's primary function is to proactively reach out to companies within Dominion Energy Utah's service territory, conduct student-led (faculty supervised and reviewed) energy assessments, and promote the implementation of clean energy projects. On average, energy assessments from the IIAC result in $137,000 in annual savings recommendations per company. In short, the IIAC investigates and analyzes possible efficiency technology projects, and if those projects prove beneficial, then assists the customer/companies in implementing the efficiency solutions. The IIAC averages roughly 60% implementation in terms of projects completed relative to projects recommended since its re-inception in 2016. The University of Utah was selected by DOE through a competitive nationwide process and is recognized as one of the top performing of the 24 DOE-funded centers. The University of Utah has the only industrial assessment center funded by DOE and located within the State of Utah at this time. The Company would also benefit from being able to use the 20 DOE-funded annual assessments currently being done by the IIAC as a source for future Natural Gas Air Quality projects.

Secondly, the Company would seek to fund an additional 20 assessments annually through the IIAC. These additional assessments may be identified by the IIAC or could be found by the Company and referred to the IIAC for completion. These expanded assessments, combined with existing IIAC assessments, will identify many more

renewable and efficiency technology projects. While many of the identified projects will be cost-effective on their own (*i.e.*, without financial incentives), the Company expects that its partnership with the IIAC will yield many new high-impact opportunities where Natural Gas Air Quality incentive funds could be used to motivate companies to undertake more costly projects to increase efficiency and improve air quality, and which would typically fall outside of internal investment guidelines.

Q. What types of facilities would be targeted through Company-funded assessments?

A. While the DOE program is focused on the manufacturing sector and is limited in terms of company size and function, Natural Gas Air Quality funds would be used to reach the majority of large-scale DEU customers and would include institutional facilities (schools, government buildings, etc.), commercial (office buildings, hotels, hospitals, etc.), and others. The Company currently has a list of potential projects that it would like to have assessed by the IIAC. Those projects include a variety of technologies ranging from switching engines in heavy machinery (*e.g.* freight switcher locomotives, dump trucks, school buses) to compressed natural gas engines which produce 90% fewer NO_x emissions than even the cleanest diesel engines. The Company also expects to engage the IIAC in the assessment of potential projects that could advance the development of renewable natural gas (RNG) in Utah.

Q. How could the partnership with the IIAC benefit the development of RNG in Utah?

A. As with the project proposed in this docket, financial incentives for future Natural Gas Air Quality projects involving RNG could prove to be a major market catalyst. Most landfill and waste-water treatment facilities have a focus on simply processing waste. In many cases, those facilities are required to flare or burn waste methane gas. The IIAC

has investigated a handful of potential RNG projects and have found them to have longer payback periods of 10+ years. However, new programs offering renewable energy credits, coupled with a financial incentive, could change the landscape for these projects dramatically.

Q. How would the IIAC approach the development of RNG projects in Utah?

A. While the IIAC as currently constituted is primarily focused on providing energy assessments for manufacturing facilities, expanded assessment funds would allow the program to extend its services, both in terms of the types of facilities assessed and the services offered. The expansion of this program, for example, would allow the IIAC to provide no-cost energy assessments to waste facilities, such as landfills, food waste collection and processing facilities.

Q. Would every assessment performed by the IIAC lead to a Natural Gas Air Quality project and incentive funds?

A. No. The Company expects that a high percentage of the efficiency improvements currently being identified and implemented by companies through the IIAC's assessments would continue to be completed without incentives. This would include a high percentage of efficiency improvements identified by the additional IIAC assessments funded by the Company. By simply providing funding, the Company will be aiding in both advancing improvements in local air quality and acquiring valuable research and development that will prove useful in identifying and advancing future Natural Gas Air Quality project filings and incentives authorized by Utah Code Ann. §§ 54-4-13.1 and 54-20-105.

Q. How would future Natural Gas Air Quality projects requiring incentive funds be identified?

A. The Company values the third-party independence of the IIAC and proposes to rely on its expertise for recommendations of future projects where incentive funds would be required to move the project forward. The Company proposes to prioritize incentive funds to those projects located in air quality non-attainment areas within the State and to focus on projects where development of RNG and/or the inclusion of natural gas would deliver the largest NO_x, PM 2.5, O_3, and precursor emission reductions.

Q. What budget is the Company proposing for the expanded assessments through the IIAC?

A. For the expanded assessments and partnership with the IIAC, the Company is proposing an annual budget of $800,000 in 2020, 2021, and 2022, or a three-year total of $2.4 million. In addition to the expanded assessments, the IIAC would specifically identify and evaluate the potential projects in terms of economics and environmental benefits. The Company would bring the most promising projects to the Commission for consideration. The IIAC would take the lead role in facilitating potential projects. This would entail detailed cost-benefit analysis, coordinating a competitive bid process, working with the Company, assisting with filings seeking Commission approval for incentive funds, and ongoing research and documentation of each Commission-approved project. Beyond individual projects, the IIAC would work to develop streamlined processes for analyzing each project in an effort to make these projects more efficient and cost effective. The IIAC would also document each case study to promote the technology and potential for RNG. Mr. Mendenhall provides the impact on customers of the $800,000 annual budget.

Q. In addition to new assessments, what other services would the IIAC provide?

A. The DOE program funds the IIAC at $370,000 per year (for a period of 5 years) to perform 20 annual assessments. The Company is proposing to provide matching funding to perform an additional 20 assessments annually for a period of 3 years. The total of 40 annual assessments would be used by the Company as a project generator for future Natural Gas Air Quality projects.

The remaining $430,000 in proposed annual funding would be used to expand the IIAC's traditional scope of work, beyond assessments, into project and market development. The Company could take projects it identifies (*e.g.* freight switcher locomotives, dump trucks, school buses, landfill and wastewater RNG) to the IIAC for analysis (outside of the 20 additional assessments) and prioritization of Natural Gas Air Quality project filings and incentives.

The IIAC would also be involved in the implementation of Commission-approved projects by soliciting bids to potential contractors and then working with the selected vendor on the installation of Natural Gas Air Quality project equipment. This process is known as "project commissioning" in the energy efficiency industry. Project commissioning is a time-consuming and costly process, but it ensures that equipment is installed correctly and, in this case, would confirm that the projected air quality benefits were achieved.

Finally, the IIAC would continue to monitor the performance of installed equipment. This work would involve frequent site visits and development of case studies to inform future projects. The IIAC would also monitor, track, and report on the long-term impact of Natural Gas Air Quality projects on Utah's air quality. Students and supervising faculty

would be involved in this work which would have the added benefit of training and providing experience in the most efficient natural gas equipment to the next generation of engineers. The Company proposes to file any IIAC-conducted studies with the Commission as part of its annual reporting.

Q. What is a metric that can be used by the Commission to determine if the Company's proposed budget for the partnership with the IIAC is reasonable?

A. In addition to the 20 new assessments, the Company is proposing to partner with and seek funds for the IIAC to perform the essential functions of "...investigation, analysis, and implementation"[1] related to Natural Gas Clean Air projects which is allowed under Utah Code Ann. § 54-20-105. In evaluating whether the proposed annual budget of $800,000 is reasonable, the Company has benchmarked against the national average (in the 23 States with budgets of $10 million or more) of program administration costs found in the natural gas energy efficiency industry. In the most recently available survey on natural gas energy efficiency programs, the American Gas Association (AGA) found that program administration costs averaged 38% of total program expenditures for the 2017 calendar year. If the Company were to file for and receive Commission approval to use $9.2 million in 2020, 2021, and 2022 ($10 million annually authorized by the legislation minus $800k for the IIAC partnership) for Natural Gas Clean Air projects, the budget for program administration would represent 8.7% of total expenditures. Based on prior experience, the Company believes that contracting with a professional engineering firm to perform the Company-proposed IIAC role would cost substantially more.

[1] See Utah Code Ann. §54-20-105(1)

Q. Did the Company seek input from other parties on the proposed Natural Gas Air Quality project and partnership with the IIAC?

A. Yes. The Company met with representatives from the Division of Public Utilities and the Office of Consumer Services on November 21, 2019 and December 23, 2019 to present concepts and gather feedback on the proposed Natural Gas Air Quality project and partnership with the IIAC. A copy of a PowerPoint presentation offered by the Company at the November 21, 2019 meeting is attached to my testimony as DEU Exhibit 1.02. The Company has further engaged in phone calls and e-mail correspondence with both parties and has incorporated input gathered from its discussions with the Division of Public Utilities and the Office of Consumer Services into this Docket. To the Company's knowledge, no other party has expressed interest or requested notice with the Utah Public Service Commission (Commission).

Q. How will future Natural Gas Clean Air projects be evaluated by the Company and the IIAC?

A. Consistent with statutory requirements, the Company and IIAC will consider the following factors before filing a future Natural Gas Clean Air project to the Commission:

1. The extent to which the use of RNG is facilitated or expanded by the project
2. Potential air quality improvements associated with the project
3. Whether the proposed project could be provided by the private sector or would be viable without the proposed incentives
4. Whether any proposed incentives were offered to all similarly situated potential partners and recipients; and
5. Potential benefits to ratepayers

The Company will address each of these factors in future written testimony and, where possible, quantify the potential benefits.

IV. PROPOSED FILING AND REPORTING FOR FUTURE NATURAL GAS CLEAN AIR PROJECTS

Q. How does the Company propose to file for incentive funds related to future Natural Gas Clean Air projects?

A. The Company proposes to file for future Natural Gas Clean Air projects, along with the associated incentive dollars, as they are identified, evaluated through an assessment, and air quality benefits quantified by the IIAC. It is anticipated that future filings could include multiple Natural Gas Clean Air projects. The Company also anticipates that, at a future date, and once experience has been gained with a particular project or technology (e.g. CHP or RNG), that it may propose a streamlined or simplified filing structure for Commission approval.

Q. How does the Company propose to report on the status of Commission-approved Natural Gas Clean Air projects?

A. The Company proposes to file an annual report with the Commission and Division on or before June 1 of each year. The report would detail the programs active during the previous calendar year, including status, operation, funding, disposition of funds, program benefits achieved (e.g. NO_x, SO_x, O_3, and PM 2.5 reductions), and the impact on rates.

Q. Does this conclude your direct testimony?

A. Yes.

State of Utah)

) ss.

County of Salt Lake)

I, Michael A. Orton, being first duly sworn on oath, state that the answers in the foregoing written testimony are true and correct to the best of my knowledge, information and belief. The exhibits attached to the testimony were prepared by me or under my direction and supervision, and they are true and correct to the best of my knowledge, information and belief. Any exhibits not prepared by me or under my direction and supervision are true and correct copies of the documents they purport to be.

Michael A. Orton

SUBSCRIBED AND SWORN TO this 31st day of December, 2019.

GINGER JOHNSON
Notary Public State of Utah
My Commission Expires on:
August 4, 2023
Comm. Number: 707241

Notary Public