BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE REQUEST OF DOMINION ENERGY UTAH TO EXTEND NATURAL GAS SERVICE TO GENOLA, UTAH	Docket No. 23-057-13

DIRECT TESTIMONY OF WILLIAM S. RADFORD

FOR DOMINION ENERGY UTAH

September 8, 2023

DEU REDACTED Exhibit 2.0

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is William S. Radford. My business address is 1140 West 200 South, Salt Lake City, UT 84104.

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

A. I am employed by Dominion Energy Utah ("Dominion Energy", "DEU", or "Company") as the Manager of Compliance Engineering. I am primarily responsible for the Engineering and Project Management of various compliance-type capital work programs. My qualifications are included in DEU Exhibit 2.01.

Q. Have you testified before this Commission before?

A. No.

Q. Attached to your written testimony are DEU Exhibits 2.01 through 2.10. Were these prepared by you or under your direction?

A. Yes, unless otherwise indicated. In that case, they are true and correct copies of what they purport to be.

Q. What is the purpose of your direct testimony?

A. The purpose of my testimony is to provide an overview of the required capital improvements necessary to extend natural gas service to the community of Genola ("the Community"). This overview will include the scope of work and costs of required facility construction, the timing of that construction, and estimates on the potential number of new customers.

II. PROJECT SCOPE AND SCHEDULE

Q. Please describe the communities and the area the Company proposes to serve under the Application in this matter.

A. Genola is a city in Utah County, Utah. It has a population of approximately 1593 residents and covers approximately 6.2 square miles. I have attached a map of Genola as DEU Exhibit 2.02. The shaded area in each exhibit shows the area the Company proposes to serve.

Q. How was the community of Genola selected for this project?

A. The Company developed an evaluation matrix that included any community in Utah that does not currently receive natural gas service. The Company developed high-level estimates of the cost of serving the community using potential customer count, pipeline alignment and basic scope of work for all facilities required. The Company also considered the distance from each community to the Company's current service territory, permitting requirements, and the potential benefit to each community.

Q. What facilities does the Company propose to construct in this docket?

A. The Company is seeking pre-approval for the construction of intermediate high-pressure ("IHP") pipeline facilities necessary to provide natural gas service to Genola. This project will not require construction of high pressure pipelines or pressure regulator stations. Dominion Energy proposes to construct approximately 30.3 miles of IHP main (11,500 feet of 8", 7000 feet of 6", 38,650 feet of 4" and 115,000 feet of 2") to extend existing natural gas infrastructure from Santaquin into Genola. The Company also proposes to construct approximately 79,000 feet of IHP service lines in Genola.

Q. How many prospective customers could receive natural gas service if the Commission approves the Application in this Docket?

A. As Mr. Summers testifies, the Community indicated that there are 500 residences and businesses that would be eligible for service if the Commission approves the Company's request. The Company did its own review and has estimated that there could be around

507 customers that could be served. The Company's review was performed by counting structures using aerial imagery in Google Earth. The Company's estimates assume all 507 customers sign up for gas service.

Q. How many of those prospective customers have expressed interest in receiving natural gas service?

A. As Mr. Summers testifies in his pre-filed direct testimony, the Company conducted community outreach activities, including a survey of residents to gauge interest in receiving natural gas service. The majority of respondents indicated that they wanted natural gas service. DEU Confidential Exhibit 2.03 shows the location of the prospective customers who responded to the survey. The green pinpoints on DEU Confidential Exhibit 2.03 indicate the location of respondents who indicated they were interested in receiving natural gas service, the orange pinpoints indicate the location of respondents who either were undecided, and the red pinpoints indicate the location of respondents who did not want to receive natural gas service.

Q. Have you forecast the natural gas consumption for Genola customers pursuant to Commission Rule § 54-17-402(3)(b)(ii)(C)?

A. Yes, the consumption usage is based on the estimate of potential customers in Genola. The gas consumption calculation is shown in DEU Exhibit 2.04. Various inputs go into the gas consumption calculation including geographic data, weather information, average building square footage and assumed appliances in buildings. The calculator estimates the total monthly gas consumption as well as the hourly peak gas usage of the community.

Q. What size of IHP lines would be used to extend gas service to Genola?

A. The Company performed a sizing study based upon the anticipated customer demand and determined that a combination of 8", 6", 4" and 2" diameter IHP mains should be used to serve the Community. The Company plans to utilize existing pressure regulator stations SQ0003 and WA1582 to provide the natural gas supply to the Community. A copy of the sizing study is attached as DEU Exhibit 2.05. The proposed route of the IHP mains are shown as Option A in DEU Exhibit 2.06.

Q. How did the Company determine the required IHP main sizes?

A. The Company's IHP Engineering department built a gas network model of the Genola community to determine the minimum main sizing for the entire system. The Company calculated the loads driven by the potential gas customers using the residential load calculator, included as Exhibit 2.04, and then applied these results to mains in the gas network model. The Company determined lengths and position of mains using location of residences based on aerial imagery. The Company accounted for regional growth in main sizing as well. A full discussion of this exercise can be found in Exhibit 2.05, Genola Rural Expansion Analysis.

Q. How did the Company estimate the total length of the service lines in Genola?

A. The Company developed a preliminary IHP main design in CAD and then imported that design into Google Earth. The Company identified each potential customer in Google Earth and drew a service line between the estimated future meter location and the IHP main in the road. The meter location was estimated by using the location of the propane tank and determining the most likely point where the fuel line would enter the home. The Company maintained a spreadsheet with every home address and service line length.

Q. Did the Company consider alternative designs for extending natural gas service to Genola?

A. Yes. In addition to the sizing considerations shown in DEU Exhibit 2.05 the Company considered one additional routing option, which is shown as Option B in DEU Exhibit 2.06. Option B would extend natural gas into Genola by installing 1.2_miles of 8" high pressure ("HP") pipeline from Santaquin and installing a new full size pressure regulator station. Option B is significantly more expensive and complicated with additional risks as new property acquisition is required. While option A does require more linear footage of pipe, it does not require the construction of a regulator station and it contemplates installation of less-expensive IHP pipe rather than steel high pressure pipe. Option A is the most efficient and economical way to extend natural gas service to the community of Genola.

Q. What are the cost differences between Option A and Option B?

A. The estimated cost for this option is [redacted]. This amount includes construction of the IHP mains and service lines. DEU Confidential Exhibit 2.07 show the detailed cost summary for Option A. The estimated cost for the HP pipeline extension, regulator station, IHP distribution system and service lines ("Option B") is [redacted]. DEU Confidential Exhibit 2.08 contains the cost summary for Option B.

To ensure the cost estimates are as accurate as reasonably possible, significant efforts have gone into up-front design of the service lines and IHP mains, including estimated lengths and proposed installation method. This design helped ensure that estimates for material and labor quantities are as accurate as possible. An itemized summary of the IHP main and service line design work is included in Exhibits 2.09 and 2.10.

Q. What are the primary construction methods the Company plans to use for IHP main and service line installation throughout the project?

A. The cost estimates currently assume that approximately 75% of the IHP mains will be installed by horizontal directional drilling ("HDD"), 25% will be installed by open trench, and 100% of the service lines will be installed by HDD. The cost comparison between installing pipe by HDD vs open trench varies depending on a variety of factors, but primarily the surface type. If installing through asphalt, concrete or landscape, the costs are typically about the same or potentially less for HDD. If installing through native ground or a gravel surface then open trench will typically be less expensive. Other factors the Company will consider when selecting construction methods include utility crossing, railroad or canal crossings, traffic control, position of the IHP main in the roadway and general community impact. The Company will work closely with its contractor and jurisdictional representatives to consider all factors in determining the best method of installation.

Q. What contracts will be required to construct the facilities you have described.

A. If the Utah Public Service Commission ("Commission") approves this project, the Company will conduct a bid process for construction of the facilities. The Company will

evaluate the bids for cost, construction schedule, and the contractor's safety and performance metrics.

Q. What governmental authorizations are required to construct these facilities?

A. The majority of the construction will be permitted and approved by the community of Genola. A small portion of the work will be constructed on State Highways 141 and 6, where UDOT will permit and approve the work. Additionally, 12 railroad crossings have been identified and will be permitted through Union Pacific Railroad.

Q. Have you developed a project schedule for the proposed expansion of service to Genola?

A. Yes. I estimate that the entire project would take approximately 8 months to construct. If the Commission approves the project, the Company will commence construction during the second quarter of 2024 and expects mains and the first service lines to be in service by November 2024. Construction on service lines will continue after the system is in service.

Q. Will you please summarize your testimony?

A. Yes. The Company proposes to invest [redacted] in IHP mains and services to serve the community of Genola, Utah. The facilities would include 11,500 feet of 8" IHP extensions from existing regulator stations SQ0003 and WA1582, a 7000 foot 6" IHP tie between the two stations, and a combination of 4" and 2" IHP mains (38,650 feet of 4" and 115,000 feet of 2") to provide a distribution system for the community. The Company plans to install up to 507 services lines to any interested residents or businesses that sign up for natural gas service.

Q. Does this conclude your testimony?

A. Yes.

State of Utah)

) ss.

County of Salt Lake)

I, William S. Radford, 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. Except as stated in the testimony, 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.

William S. Radford

SUBSCRIBED AND SWORN TO this 8th day of September, 2023.

Notary Public

PAULINE CARAVEO
Notary Public State of Utah
My Commission Expires on:
February 16, 2025
Comm. Number: 716795