BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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| IN THE MATTER OF THE APPLICATION OF DOMINION ENERGY UTAH TO EXTEND GAS SERVICE TO GREEN RIVER, UTAH | Docket No. 21-057-12 |

**DIRECT TESTIMONY OF MICHAEL L. GILL**

**FOR DOMINION ENERGY UTAH**

**April 14, 2023**

**DEU REDACTED EXHIBIT 6.0**

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## I. INTRODUCTION

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

A. My name is Michael L. Gill. My business address is 333 South State Street, 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 Director of Engineering and Project Management. I am responsible for the High-Pressure (HP) Engineering, Intermediate High-Pressure (IHP) Engineering, Systems Engineering, Infrastructure Replacement, Survey, Pre-Construction, IHP Inspection and Design Drafting Departments. My qualifications are included in DEU Exhibit 6.01.

**Q. Have you testified before the Utah Public Service Commission (Commission) before?**

A. Yes. I testified in Docket Nos. 18-057-03, 19-057-13, 19-057-31 and 21-057-06.

**Q. DEU Exhibits 6.01 through 6.05 are attached to your testimony. 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 changes to the project's estimated costs of extending natural gas service to Green River, Utah as part of the rural expansion program. I also explain how the Company became aware of these changes, the reasons for the changes, and how the Company proposes to address the changes. I explain the estimated costs of facility construction required to complete the Green River project, discuss the costs expected to be incurred by June of 2023, and discuss the unavoidable costs that the Company will incur if the Green River expansion project is not pursued to completion. Finally, I discuss the major proposed contracts required for the project and why an Order to Proceed is the proper response to the change in Estimated Costs.

**Q. Can you please describe the rural expansion project currently approved for Green River?**

A. In August of 2021, Dominion Energy filed its Application in this docket, seeking the Commission's pre-approval to construct facilities to serve Green River, Utah. Green River is a city in Emery County, Utah with a population of approximately 935 residents in year 2020 and covers approximately 12.6 square miles. DEU Exhibit 6.02 is a map showing, in the shaded portion, the area the Company proposes to serve. To serve Green River, the Company purchased an approximately 21.2 mile long gathering line (the PEMC Pipeline). The Company also proposed to construct approximately 17 miles of 6-inch HP pipe, two district regulator stations, approximately 73,000 lineal feet (lf) of IHP main lines, and approximately 24,000 feet of IHP service lines to homes and businesses in Green River. I will refer to the construction of these facilities as the "Green River Expansion Project". Based on information provided by Green River, information obtained by the Company from other third parties, and the Company's own research, the Company originally estimated that the Green River Expansion Project would cost $33.7 million. On January 19, 2022, the Commission approved the Company's proposed expansion to Green River at a cost of $33.7 million.

**Q. Has the scope of the project changed?**

A. No. The scope of the project has remained the same. However, due to circumstances beyond the Company's control, the estimated costs of the project have increased. The project is now estimated to cost approximately $44.3 million.

## II. THE NATURE AND CAUSE OF THE CHANGE IN PROJECTED COSTS

**Q. When did Dominion Energy become aware of the increases in costs that changed the total estimated cost of the project?**

A. Dominion Energy became aware of the increase to the total cost of the project when the final construction bids were received and awarded during January of 2023.

**Q. Please describe the nature of the increases in costs**

A. DEU Confidential Exhibit 6.03 is a table showing both the original cost estimate, and the current cost estimate for the Green River Expansion Project. The column entitled "Original Estimate" shows the costs provided to the Commission with the Application in this docket. Those costs were reflected in DEU Confidential Exhibit 2.14. The column entitled "Revised Estimate" reflects the current cost estimates, including unanticipated increases in costs. The column entitled "Difference" shows the difference between the two. The column titled "Notes" includes a summary explanation for each of the cost variances.

**Q. Are any of the cost amounts shown in DEU Confidential Exhibit 6.03 reflective of final actual costs, rather than estimated costs?**

A. Yes. In some instances, the costs reflected in the "Revised Estimate" column are actual costs that the Company has already spent. The "Notes" column in DEU Confidential Exhibit 6.03 indicates if the updated estimate reflects an actual cost, an updated estimate, or a combination of both. For example, the Company has purchased the materials for the Green River Expansion Project. Therefore, the Line on the table for "Material" reflects the actual costs of materials purchased. The Notes for that line item identify it as a "realized cost".

**Q. Why did material costs increase so substantially?**

A. As DEU Confidential Exhibit 6.03 shows, material costs for the project have increased by $1.8M million over that shown in DEU Confidential Exhibit 2.14. This increase in costs is almost entirely due to an unanticipated increase in the cost of pipe. The Company estimated those costs based upon historical costs the Company incurred for similar pipe and material at the time of the Application. In 2020, the Company purchased 6-inch diameter pipe from pipe mills for between [redacted] per foot. A summary of these purchases is shown in Confidential Exhibit 6.04.

In early 2021, the Company prepared its estimates for the proposed Green River expansion project. To be conservative, the Company increased observed 2020 costs to account for potential cost increases and used $12.50 per foot in its Green River estimate.

In August of 2022, the Company requested bids from pipe mills and third-party distributors for pipe to be used in the Green River Expansion Project. The Company received nine bids from six vendors and pipe mills. The Company evaluated each of the bids on, among other things, the pricing and the ease of installation of the pipe lengths offered in response to the bid. The Company selected the second-lowest-cost pipe as the winning bid. The Company did so because it would result in the lowest cost for the project considering both the material cost and the installation cost. Most of the bids offered 40-foot lengths of pipe. The winning bid offered 60-foot lengths of pipe. The Company determined that it would achieve significant cost savings on installation using the 60-foot pipe lengths because using the longer pipe would reduce trucking, welding, and non-destructive testing requirements, as compared with 42-foot lengths. DEU Confidential Exhibit 6.05 details the cost savings achieved by selecting the winning bid, over the bidder with only 40-foot lengths.

**Q. DEU Confidential Exhibit 6.03 shows an increase in costs for the IHP portions of the project. Please explain why those costs increased.**

A. These costs increased for two primary reasons. First, installation costs have risen dramatically since the Company filed the Application. Second, based on information known to the Company at the time of the Application, the length of the average service line required to serve each customer's home or business in Green River is longer than previously anticipated.

**Q. Please describe the increase in installation costs.**

A. Dominion Energy estimated the cost of the Green River Expansion Project based on historic costs it had incurred for similar work at the time it prepared the Application. Since that time, labor costs have increased substantially due to inflation and other market factors outside of the Company's control. In fact, in the past two years, the Company has seen construction contractor costs rise considerably consistent with general inflationary increases in the industry and the broader market.

DEU utilized a competitive bidding process to select the best contractor for the installation of the facilities in Green River. Twelve local and regional contractors

submitted bids, and DEU selected the contractor who could both accomplish the work in the required time frame and offered competitive pricing.

**Q. Why are the service lines in Green River longer than what the Company originally anticipated?**

A. When the Company originally estimated the costs of the Green River Expansion Project, it anticipated constructing service lines from the main line in the street to a near-point on each home. When the Company constructs facilities for new developments, it typically constructs main lines along each side of the street to facilitate easier access to those facilities and to minimize potential conflict with other utilities. We refer to this practice as "double maining." The main lines are often located on the house side of the sidewalk in a public utility easement (PUE). Then, the service line is installed from that main to a typical location near the front corner of the residence. The Company prepared the initial cost estimate for the Green River Expansion Project with its typical installation practices and costs in mind. Since that time, we have learned that rural expansion projects cannot be installed this same way.

**Q. How do rural expansion projects differ from the Company's typical construction approach?**

A. They differ in two ways. First, because the roadway and other utilities are already in place, double maining is impractical. To avoid conflicts with existing infrastructure, and to minimize damage to customers' existing landscaping, and the city's roads, sidewalks and curbs, the Company installs single main lines. This means that one side of the street will be proximate to the houses, but the other side of the street will have to cross the street to tie into the main. The "long side" service lines will be longer than the Company's typical service lines due to the extra length necessary to reach the opposite side of the street.

Second, we have learned from recent expansion projects that the typical meter location at the front corner of a structure will not work for existing structures that have been utilizing propane. Propane tanks are generally, although not always, located in the back of homes and businesses, and, as such, the customers' fuel lines most often connect at the back of

the home. This means that, unless the location the gas line enters the home, the Company will have to extend the service lines an additional distance to connect into the fuel line connection. The Company could require each customer to modify the fuel lines in their homes to allow entry at the front corner of the home, but such a requirement may make conversion from propane to gas cost-prohibitive for the customer. Instead, the Company believes it is more appropriate to run its service lines to the back of those homes, to connect to the existing inlet of the customer's fuel line.

**Q. When did the Company become aware of this service line issue?**

A. The Company discovered that service lines may be longer than anticipated as it began to install service lines in its first rural expansion area, Eureka, Utah, in late 2021, and early 2022. As noted above, the Company discovered that the overall costs associated with the Green River expansion would be substantially higher when it received responsive bids for pipe and construction contractors.

**Q. How did the Company confirm the need for longer service lines in Green River?**

A. The Company utilized the initial customer interest survey to determine the fuel source currently utilized by residents. If the prospective customer indicated they used propane on the survey, the Company used satellite images to locate the propane tanks on the property. In these instances, the Company refined the service line length measurement for the location by measuring from the proposed main location in the street to the side of the house nearest the propane tank. This often resulted in service lines being measured to the rear wall of the house. If the prospective customer did not indicate that they use propane, the service lines were measured from the proposed main location to the front corner of the home.

**Q. What was the result of this revised analysis?**

A. The anticipated lengths of service lines increased. The Company used an average service line length of approximately 47 feet in its original estimate. After this analysis, the Company increased the average service line length in Green River to approximately 113 feet. The Company originally estimated a total service line quantity of 16,450 feet. This analysis resulted in changing the anticipated service line footage to 39,550 feet.

**Q. Please explain the increase in miscellaneous contractor costs shown on DEU Confidential Exhibit 6.03.**

A. There are three main components of the proposed price increase shown in the category. First, the Company now estimates higher costs for alternating current (AC) mitigation. Second, due to severe flooding that occurred in 2022, the Company will be required to replace a portion of the PEMC pipeline. Third, the Company is estimating increased costs for the Company-owned facilities of the interconnect gate station with Northwest Pipeline. I explain each of these changes below.

**Q. What is AC mitigation?**

A. AC Mitigation involves installation of protective devices, typically in the form of zinc ribbon, to mitigate the effects of induced AC current on the pipeline. Induced AC current exists in circumstances where pipelines parallel power lines for a significant distance. If mitigating measures aren't taken, induced AC current can cause acute corrosion issues on the pipe.

**Q. Why did the cost estimate for AC mitigation and cathodic deep well modifications increase?**

A. These increased costs are the result of inadequate cathodic protections on the PEMC line. Prior to closing on the purchase of the line, the Company did not have complete access to analyze the condition of the cathodic protection on the PEMC line. The Company had access to historical records but was not able to perform detailed studies on the impact co-located AC transmission lines may have on the pipeline. Specifically, the Company reviewed numerous studies and previous consulting work regarding the cathodic protection on the line, which concluded the line was protected from corrosion after the recommended actions were completed. These actions appear to have been completed per the recommendations. However, after closing on the sale, and in order to be prudent operators, the Company conducted additional induced AC corrosion studies and conducted field measurements on the cathodic protection system. As a result of this work, the Company determined that the proposed cathodic deep well would need to be larger, and that the proposed AC mitigation costs included in the estimate were not high

enough to account for the necessary mitigation work. The costs shown in the exhibit represent the change from the original estimated amounts.

**Q. Why is it necessary to replace a portion of the PEMC line?**

A. The initial Company surveys showed the PEMC line was slightly exposed in a wash downstream of Mill Canyon. Based on its initial analysis, the plan was to rebury the line in the wash in the 2nd quarter of 2023. The pipe was in excellent condition, and the Company did not anticipate a need to replace pipe.

In August 20, 2022, floods significantly impacted the region around Moab. The flood further floated and lifted the exposed section of pipe and significantly damaged the coating. Given these events, the Company determined that the safest approach would be to replace a portion of the line and utilize concrete coated pipe to ensure potential flood damage does not occur in the future. Replacing the pipe increased the estimated costs.

**Q. Why did the costs associated with the Northwest Pipeline interconnect change?**

A. In early 2023, as the Company was finalizing plans, its operations team noted the need for a structure to protect metering facilities at the interconnect. Constructing this structure ensures that sensitive equipment will be protected from the elements and potential sabotage. The original cost estimate did not include the costs of such a structure.

**Q. Why did the estimate for environmental consulting and engineering costs increase, as shown in DEU Confidential Exhibit 6.03.**

A. In August 2019, Green River received a Right-of-Way from the Bureau of Land Management (the Grant) to allow construction of a natural gas pipeline to Green River. That Grant described the project, preliminary routing, and set the preliminary expectations on what studies were complete and what resources would be required during construction. The Company believed it could utilize the Grant to construct its approximately 17 mile 6" high-pressure extension from the end of the PEMC line to Green River.

After the Commission approved the Green River Expansion Project, the Company began the detailed design phase of the project. During this design, the Company learned that

the original design referenced in the Grant did not include best practices for crossing major washes. The Grant also did not reflect input from stakeholders like Grand County Road Maintenance and Union Pacific Railroad. As a result, the Company redesigned portions of the alignment, which prompted subsequent negotiations with stakeholders. These negotiations resulted in additional design iterations and extra surveying to find solutions to stakeholder concerns.

When Dominion Energy submitted a design that met the needs of the Grant and the stakeholders, the BLM indicated that many of the original cultural and environmental surveys were no longer valid. The Company was required to re-survey all 17 miles of the proposed alignment and prepare new reports for the agency.

In addition, the Grant was also vague as to what monitoring would be needed on a project during construction. At the construction kick-off meeting with the BLM, the BLM made stipulations on monitoring that were much more intensive than the Company originally anticipated. For example, the BLM required extensive paleontological monitoring during construction, and the presence of a full-time biological inspector on the project. The Company's original estimate did not include costs for this monitoring. Collectively, these issues resulted in a significant increase in costs.

**Q. Did the Company make an effort to reduce the overall cost of the project?**

A. Yes. Due to the extra anticipated length of service lines the Company was able work with its IHP contractor to recognize efficiencies and reduce the per foot installation price. The Company also helped secure a local source for sand that reduced the cost of importing material for shading. Additionally, as discussed above, the Company elected to use 60-foot pipe joints to reduce installation costs on the 6" HP extension. The cost savings discussed here have already been recognized in the updated total costs shown in DEU Confidential Exhibit 6.03. However, as with every project, the Company will continue to work with its HP and IHP Green River contractors to identify any potential cost savings as the project progresses.

**Q. Should DEU have anticipated higher costs in its original estimate?**

A. As explained above, the Company used the information it had available at the time to develop its estimate and included a reasonable contingency. Unfortunately, in recent years the Company has seen a substantial increase in material and contractor costs that could not have been reasonably foreseen when the Company originally estimated the project. The Bureau of Labor Statistics, Producer Pipe Index (PPI) for construction in the western United States indicates an increase in contractor costs of 14% since August of 2021 when the application to serve Green River was originally submitted. In addition, as explained above, other costs increased due to BLM and stakeholder requirements, the inability to effectively "double main", the lack of consistency regarding the gas line connection point on homes and businesses in the area, the impacts of flooding, and other unanticipated issues.

## III. UPDATED PROJECTIONS REGARDING THE IMPACT OF THE CHANGED PROJECTED COSTS

**Q. Does the Company expect these increased costs to impact the timing or other aspects of the Green River Expansion Project?**

A. No. Although the anticipated costs have increased, the Company believes it can still complete the Green River Expansion Project by the 2023 heating season, as originally anticipated.

## IV. COSTS INCURRED TO DATE, AND EXPECTED TO BE INCURRED BY JUNE OF 2023

**Q. What costs has the Company incurred, to date, on the Green River Expansion Project?**

A. As I mentioned earlier, the Company has already incurred costs for materials, rights-of-way, the Northwest Pipeline interconnect, and the purchase of the PEMC Pipeline. The Company also has completed all design work and obtained the required permits. The Company began construction on the 17 mile 6" HP extension on February 27, 2022, and began installation of the IHP distribution system in Green River on March 6, 2023. In all, the Company has, to date, spent approximately $15.4 million.

## V. UPDATED PROJECTIONS OF UNAVOIDABLE COSTS IF THE APPROVED RESOURCE DECISION IS NOT PURSUED TO COMPLETION

**Q. What additional costs will the Company incur during the time the Commission considers the Request for Review and Determination to Issue a Notice to Proceed (the Request for a Notice to Proceed)?**

A. Utah Code Ann. § 54-17-404 requires that a Commission review of a request for approval of increased costs must be completed within 60 days. As shown in the table below, the Company anticipates that, by end of May 2023 it will have spent approximately $26.8 million on the project.

[redacted]

## VI. MAJOR PROPOSED CONTRACTS OR CONTRACT AMENDMENTS

**Q. Are there any other contracts the Company will be required to obtain to complete the Green River Expansion Project?**

A. No. The Company does not expect any new contracts or contract amendments. As Mr. Messersmith testified in his Direct Testimony in this docket, the Company entered into an agreement to purchase the PEMC Pipeline. The Company has also entered into agreements for purchase of materials, consulting and design services, and construction of HP and IHP facilities. Finally, the Company has entered a contract with Northwest Pipeline for a pipeline interconnect.

## VII. AN ORDER TO PROCEED IS THE PROPER RESPONSE TO THE CHANGE IN COSTS

**Q. What is the proper response to the change in costs?**

A. The extension to Green River still provides the benefits discussed by the witnesses in the original Application. The Company has also spent more than $12 million on the project to date, and there will be an additional $11 million of unavoidable costs through May 30, 2023, if the Green River expansion is not pursued to completion. The Company's analysis shows that this is still the lowest-cost option to provide natural gas service to Green River. The only other options to provide natural gas service to Green River would entail significant LNG costs or extending a high-pressure main from the Price area, both of which would involve significantly higher costs. More detail on these alternatives are provided in DEU Confidential Exhibit 2.0.

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

A. Yes.

State of Utah )

) ss.

County of Salt Lake )

I, Michael L. Gill, 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.

Michael L. Gill

SUBSCRIBED AND SWORN TO this 10th day of April 2023.

Notary Public

RENA PORTER
Notary Public State of Utah
My Commission Expires on:
April 25, 2023
Comm. Number: 704986