BEFORE THE PUBLIC SERVICE COMMISSION OF WYOMING

IN THE MATTER OF THE APPLICATION OF DOMINION ENERGY WYOMING TO INCREASE DISTRIBUTION RATES AND CHARGES AND MAKE TARIFF MODIFICATIONS	Docket No. 30010-187-GR-19

DIRECT TESTIMONY OF JESSICA L. IPSON

FOR DOMINION ENERGY WYOMING

November 1, 2019

DEW Exhibit 4.0

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Jessica L. Ipson. My business address is 333 South State Street, Salt Lake City, Utah 84111.

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

A. I am employed by Dominion Energy Services, Inc. as a Regulatory Affairs Analyst III. I am responsible for preparing various regulatory filings, including pass-on rate tariffs as well as other regulatory reports and compliance filings. I am testifying on behalf of Questar Gas Company dba Dominion Energy Wyoming ("Dominion Energy," "DEW," or the "Company").

Q. Attached to your written testimony are DEW Exhibits 4.01 through 4.06. Were these prepared by you or under your direction?

A. Yes.

Q. What are your qualifications to testify in this proceeding?

A. I have listed my qualifications in DEW Exhibit 4.01.

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

A. I discuss the Company's class cost-of-service (COS) study.

II. CLASS COST-OF-SERVICE ("COS") STUDY

A. Class Cost-of-Service Study

Q. Has the Company performed full class cost-of-service studies in preparation for this general rate case?

A. Yes. I performed a complete series of COS Studies for the core firm sales service customers, General Service ("GS"), Firm Sales ("FS"), and Natural Gas Vehicle ("NGV") rate classes.

Q. Is the methodology used in the current cost-of-service model similar to that used in the 2014 general rate case?

A. Yes. The methodology is the same. I updated all allocation factors for current conditions and costs.

B. Allocation Factors

Q. Please describe the allocation factors used in the COS study.

A. The Company uses 24 allocation factors in the COS study. DEW Exhibit 4.02 provides a brief description of each allocation factor. However, I will describe in greater detail the Service Line Factor, Small Diameter Main Factor, Meter/Regulator Factor (collectively called the "Distribution Plant Factor"), the Distribution Throughput Factor, the Design-Day Factor and the Throughput Factor. These six factors allocate the majority of costs in the cost-of-service study.

C. Distribution Plant Factor Study

Q. **Will you please describe the Distribution Plant Factor Study?**

A. The Distribution Plant Factor Study is an analysis of Wyoming distribution plant installed to provide service to customers in each rate class. The types of distribution plant analyzed include meters/regulators, service lines and small diameter (6 inches and smaller in diameter) intermediate high pressure (IHP) main lines. The Distribution Plant Factor Study uses a new random sample of active meters in Wyoming to measure the average investment for each distribution plant category mentioned above. Larger capacity meters are sampled at 100% of the population due to larger cost variance. Studies of this nature have been a central aspect of the Company's COS studies since the mid-1960s.

Q. Please describe how you developed the Distribution Plant Factors for this docket.

A. The Distribution Plant Factor Study began with a new random sample of active meters to determine the average amount of plant installed for each meter type. DEW Exhibit 4.03, page 1, Columns B and E, shows the current meters by meter rating and number sampled.

Q. Have there been any changes to the Distribution Plant Factor Study since the last general rate case?

A. Yes, a new random sample of the population was created. Where the study analyzes the entire population, the data was updated to include new additions to the population. The Company also updated current cost levels for each type of facility in the analysis. Finally, DEW used the book values as of December 31, 2018 for each plant category to keep the various aspects of the analysis in balance.

Q. How did you estimate the amount of plant required to serve customers?

A. We evaluated each meter selected in the sample using information from the Company's Customer Care and Billing (CC&B) system, engineering files, and the Graphical Information System (GIS). We determined the costs to reproduce the meter set, service line and the portion of main line attributable to the sampled meter based on current cost estimates.

Q. How did you determine the amount of main line attributable to the sampled meters?

A. The study examines the main line directly connected to the service line serving a sampled meter within 1,000 feet of the service-tap point. Usually, this translates into 500 feet in each direction. The Company recorded the length of each size of main line within the 1,000 feet, along with the number of meters within the 1,000 feet. DEW Exhibit 4.03 page 2 shows a map from the GIS for an individual sampled meter in Green River, Wyoming. The map for this sampled meter, designated with a red star, includes the measurements for main (1,000 feet of 2" main line, with 16 meters connected to 16 service taps), and service line (84 feet of half-inch service line). We then priced the main line attributable to this meter (1,000 feet/16 meters, or 63 feet) at current cost.[1]

1 The only exception to this process is that, if main with a diameter greater than six inches is found in the sample, the excess cost above the cost of six-inch main line is excluded. These excess costs are allocated using the Distribution Throughput Factor that is discussed below.

Q. Why was 1,000 feet selected for the main line measurements?

A. One thousand feet captures the character of the area surrounding a customer premises, including street crossings. Experience has shown that longer measurement lengths have a tendency to include dissimilar neighborhoods while shorter lengths tend to capture too few or no intersection crossings. Also, the effort required to perform this analysis increases substantially as the measurement length increases. One thousand feet produces more reliable information regarding the size of mains installed in the vicinity of a customer, as well as the local density of customers attached to the same main. Additionally, the use of 1,000 feet is consistent with the methodology employed since the early 1980s.

Q. How did you determine the service-line cost?

A. The Company recorded the length and size of service line for each sampled meter. The service line associated with the sampled meter shown on DEW Exhibit 4.03, page 2, was 84 feet of half-inch pipe. We then multiplied the length of service line by the current cost for the identified pipe size.

Q. How did you determine the meter and regulator costs?

A. DEW identified a comparable model for each active meter installed in the system. We then determined the current cost for the comparable model, along with standard ancillary facilities. We then assigned these current cost amounts to the sampled meters.

Q. How did you establish the current cost levels?

A. The Company's distribution engineering group provided current costs. The costs for Intermediate High Pressure main and service lines are based on the actual pricing in effect for 2018, weighted by the footage installed in 2018. The costs for high-pressure service lines are based on recent actual projects adjusted to 2018 price levels. The current costs for meter sets are based on 2018 engineering estimates for standard meter sets of like size. DEW Exhibit 4.03 page 3 lists the cost data for main, service line and meter sets used to price the facilities identified through the sample measurements.

Q. How did you use the sample to establish the small-diameter IHP main investment by rate class?

A. DEW Exhibit 4.03, page 4, shows the calculation of plant investment for small-diameter mains for each rate class. Column C, lines 1 through 20, shows the unadjusted average investment in mains by actual meter rating at current cost. These average values were multiplied by the number of active meters in each rate class. The product of these calculations is shown in columns D through F, lines 1 through 20. The total for each rate class is shown on line 21. The sum of the values on line 21 is shown in column G. The total in column G, line 21, represents the total main-line investment at current cost attributable to the customers receiving service under the rate classes included in the COS study. The next step was to proportion this total to match the book investment for small-diameter mains (column G, line 22). The current costs are then reduced to 38% to match the amount of net book investment (column H, line 22).

Q. How did you use the sample to establish the service-line and meter/regulator investment by rate class?

A. DEW Exhibit 4.03, page 5, shows the calculation of plant investment for service lines for each rate class. DEW Exhibit 4.03, page 6, shows the calculation of plant investment for meters/regulators for each rate class. The service-line and meter/regulator investment by rate class was calculated the same way as described above for small diameter IHP mains.

Q. Why are the plant-investment values, calculated at current cost, proportioned down to match book cost?

A. This step is included in this study to ensure that no component of plant is afforded too much weight when the three components of the Distribution Plant Factor Study are combined. The book cost is also used to calculate the revenue requirement. This adjustment maintains consistent numbers between the revenue requirement and class cost of service.

Q. What costs did you allocate using the three Distribution Plant Factors (Service Line, Main, Meter)?

A. The costs allocated using this factor include: 1) the rate-base related costs, including return, taxes and depreciation; 2) operation and maintenance expenses related to distribution activities; and 3) a portion of administrative and general expense.

Q. What was the result of the three Distribution Plant Study Factors?

A. The results are shown in DEW Exhibit 4.03, page 7, columns B-D, rows 5-7. The Distribution Plant Factor Study shows that 99.59% of distribution facilities were installed to serve GS customers, 0.40% were installed to serve FS customers, and 0.01% were installed to serve NGV customers.

D. Distribution Throughput

Q. Please describe the Distribution Throughput Factor.

A. The Company calculated the Distribution Throughput Factor based on the commodity volumes delivered through the IHP distribution system. We developed the factor by identifying customers that are not connected to the IHP system and then subtracting the dekatherms (Dths) delivered to those customers from the commodity-throughput numbers.

Q. What costs did you allocate using the Distribution Throughput Factor?

A. The costs associated with large-diameter IHP main lines (greater than 6 inches in diameter) were allocated using the Distribution Throughput Factor. These facilities are generally sized for more than just local delivery requirements and, therefore, are excluded from the Distribution Plant Factor Study. The Distribution Throughput Factor is based on throughput quantities that reflect the underlying purpose of these facilities. Large-diameter main lines installed within the IHP system are typically designed to move gas from the high-pressure feeder-line system to the smaller distribution lines. These facilities benefit all customers connected to the IHP system. We do not allocate any of these costs to customers that are not connected to the IHP system because they receive no benefit from these facilities. We use

the booked cost of the large-diameter main lines to determine the portion of the distribution cost associated with these facilities.

Q. What are the results of the Distribution Throughput Factor Study?

A. The factor is shown on DEW Exhibit 4.04. Column B line 4 shows that in the case of the GS class, nearly all (99.83%) of the customers are served from the IHP system, while all volumes in the FS and NGV classes (columns C and D, respectively) are served from the IHP system.

E. Design-Day Factor Study

Q. **What is the Design-Day Factor Study?**

A. The Design-Day Factor Study attributes responsibility for the design-peak day between the rate classes. This factor was used to allocate costs related to the coincident peak demand of customers.

Q. What design peak day did you use in developing the Design-Day Factor?

A. I used the 2019 – 2020 heating season design day from the 2019 Integrated Resource Plan (IRP) as the basis for this factor.

Q. How did you calculate the Design-Day Factor?

A. The first step was to determine the portion of the design-day demand that can be assigned directly to specific rate classes. These are the GS, FS and NGV rate classes. The total design-day firm demand for these classes is 37,416 Dth, as shown in DEW Exhibit 4.05, column E, line 1. The NGV class was assigned 15 Dth of peak demand based on the average use per day. The balance of the design peak day attributable to the GS and FS classes is 37,401 Dth.

Q. How was the 37,401 Dth of design-day apportioned between the GS and FS rate classes?

A. We performed an analysis of the population for these classes using data from the Customer Care & Billing (CC&B) system to establish the proportionate responsibility for the remaining design-peak day. This study involved estimating the contribution to design day for Wyoming customers within the two rate classes. We calculated the estimated usage on a design day using individual customer data and then summed the data by rate class (DEW Exhibit 4.05 Lines 1 – 2).

Q. What was the result of the Design-Day Factor?

A. The results are shown on line 2 of DEW Exhibit 4.05. The GS class was determined to be responsible for 97.36% of the design-day demand, the FS class was determined to be responsible for 2.60%, and the NGV class was determined to be responsible for 0.04%.

Q. Are the results of the Design-Day Factor consistent with your expectations?

A. Yes. I have also shown on DEW Exhibit 4.05, line 4, the resulting load factor for each of the firm-sales classes. This shows that the GS class has an average load factor of 25.97% and the FS customers have an average load factor of 51.29%. These load factors are consistent with the requirements of the FS rate class (40% minimum load factor requirement) and historical experience for the GS class.

Q. How is the Design-Day Factor used in the Cost-of-Service Study?

A. The Design-Day Factor, alone, is not used to allocate costs in the COS study. It is, however, used in combination with the Throughput Factor to create the Design-Day/Throughput Factor (described below). The Company recognizes that feeder line system costs are not incurred exclusively for design-day demand requirements or throughput requirements. Therefore, costs are allocated on a combination of the two. The weighting of these factors is set at 60% design-day demand and 40% throughput. This is the same weighting that was used and approved in prior Wyoming general rate cases.

F. Throughput Factor Study

Q. How was the Throughput Factor calculated?

A. The Throughput Factor is based on the forecasted volumes of each rate class.

Q. How was the Throughput Factor used in the Cost-of-Service Study?

A. Like the Design-Day Factor, the Throughput Factor, alone, was not used in the study. Instead it was used in conjunction with the Design-Day Factor as described above.

G. Cost of Service Results

Q. Please describe the results of the COS study.

A. DEW Exhibit 4.06 shows the results of the COS study. Lines 1-49 are a summary of the revenues, expenses and rate base allocated to the different rate classes using the factors explained above. Lines 51 and 52 show the Rate of Return and Return on Equity by class before the deficiency. Line 54 shows how the deficiency needs to be assigned to each class in order to avoid inter-class subsidies. Line 55 represents the total revenue requirement (COS with deficiency).

III. CONCLUSION

Q. Please summarize your testimony.

A. The Cost of Service Study was updated to fully distribute all the costs of the Company to the various core firm sales service classes. The Distribution Plant Factor, Distribution Throughput Factor, Design-Day Factor and Throughput Factor were described in detail. The results of the Cost of Service Study are a fair cost apportionment between core firm sales services classes.

Q. Does this conclude your testimony?

A. Yes.

State of Utah)
) ss.
County of Salt Lake)

I, Jessica L. Ipson, 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.

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Jessica L. Ipson

SUBSCRIBED AND SWORN TO this 1st day of November, 2019.

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Notary Public