BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE APPLICATION OF DOMINION ENERGY UTAH TO INCREASE DISTRIBUTION RATES AND CHARGES AND MAKE TARIFF MODIFICATIONS	Docket No. 19-057-02

DIRECT TESTIMONY OF

AUSTIN C. SUMMERS FOR

DOMINION ENERGY UTAH

July 1, 2019

DEU Exhibit 4.0

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I. INTRODUCTION

Q. Please state your name and business address.

A. Austin C. Summers, 333 South State Street, Salt Lake City, Utah 84111.

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

A. I am employed by Dominion Energy Utah ("Dominion Energy," "DEU" or "Company") as the Manager of Regulatory Affairs. I am responsible for cost allocation, rate design, gas cost adjustments, and forecasting. My qualifications are detailed in DEU Exhibit 4.01.

Q. Were your attached exhibits DEU Exhibit 4.01 through DEU Exhibit 4.18 prepared by you or under your direction?

A. Yes, unless otherwise stated. Where otherwise stated, my exhibits are true and correct copies of the documents they purport to be.

Q. What general areas does your testimony address?

A. I discuss several matters including (1) the Company's class cost-of-service ("COS") studies; (2) the Company's rate design proposal; (3) the proposed allowed revenue under the Conservation Enabling Tariff ("CET"); and (4) the allocation of Supplier Non-Gas ("SNG") costs.

II. INTERIM STUDIES

Q. Did you participate in the interim studies required by the Partial Settlement Stipulation approved in the Utah Public Service Commission's ("Commission") Report and Order issued on February 21, 2014 in Docket No 13-057-05?

A. Yes. Several parties met with the Company in late June 2014 to identify the items to be studied. Subsequently, interested parties met three times and discussed a number of issues. Those meetings are summarized below:

August 13, 2014

- FS class load factor requirement
- First of month prices vs Weighted-Average-Cost-of-Gas ("WACOG") prices
- Dividing the TS Class by usage
- Interruptible Sales ("IS") Class Qualifications

October 21, 2014

- Rate design of a split TS class
- Purpose of the IS class
- IS class customer behaviors and statistics
- Theoretical seasonal (summer) rate

January 13, 2015

- Splitting IS class based on load factor or usage
- Effects/benefits of the IS class on other classes
- Calculation of the annual administration fee
- Aggregation of meters

Q. Did the interested parties reach any agreement?

A. No. The meetings were collaborative and the interested parties gained an increased understanding on each of these issues, but there was no final consensus reached between the participants on the studied issues.

III. CLASS COST-OF-SERVICE STUDIES ("COS STUDIES")

A. Class Cost of Service Studies

Q. Would you please explain the approach the Company used for the COS Studies?

A. Yes. I performed a complete series of COS Studies for the General Service ("GS"), Firm Sales ("FS"), Interruptible Sales ("IS"), Transportation Service ("TS"), Transportation Bypass Firm ("TBF"), and Natural Gas Vehicle ("NGV") rate classes. It should be noted that the one Municipal Transportation ("MT") customer is a transportation customer and was included in the TS class for purposes of the COS Studies.

B. Allocation Factors

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

A. The Company uses 29 allocation factors in performing its COS Studies. DEU Exhibit 4.02 provides a brief description of each allocation factor. I specifically discuss the Distribution Plant Factor, the Distribution Throughput Factor and the Design Day Factor in greater detail below.

C. Distribution Plant Factor Study

Q. Please describe the Distribution Plant Factor Study.

A. The Distribution Plant Factor Study is an analysis of distribution plant installed to provide service to customers in each rate class and is attached to my testimony as DEU Exhibit 4.03. The types of distribution plant analyzed are 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 random sample of active meters to measure the average amount of plant installed for each meter type. In response to recommendations from the Cost-of-Service and Rate Design Task Force established in Docket No. 02-057-02, larger capacity meters are sampled at much higher rates than smaller capacity meters. Studies of this nature have been a central aspect of the Company's COS studies since the mid-1960s.

Q. Please describe the changes to the Distribution Plant Factor Study since the Company's last general rate case (Docket No. 13-057-05).

A. The random sample of active meters described above is used only for the GS class, where the bulk of the customers reside. In all other classes, the Company measured every active customer, instead of conducting a random sampling. DEU also updated the current cost levels for each type of facility in the analysis. Finally, the Company used the book values as of December 31, 2018 for each plant category to keep the various aspects of the analysis in balance and matched to actual book value.

Q. How did the Company determine the amount of plant required to serve customers?

A. DEU 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"). The Company then 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 DEU determine the amount of main line attributable to the sampled meters?

A. The study examined the main line directly connected to the service line serving a sampled meter. Specifically, the study examined the main line within 1,000 feet of a service-tap point. Usually this translates into 500 feet in each direction. DEU recorded the length of each size of main line within the 1,000 feet, along with the number of service-line taps within the 1,000 feet. DEU Exhibit 4.03, page 1, shows the map from the GIS for an individual sampled meter. The map for this sampled meter, designated with a star, includes the measurements for main (1,000 feet of two-inch main line, with 28 service taps), and service line (76 feet of 3/4-inch service line). The Company then priced the main line attributable to this meter (1,000 feet/28 taps, or 36 feet) at current cost.[1] The cost associated with the identified main line divided by the number of meters on the identified service lines is included in the Distribution Plant Factor Study.

Q. Why did Dominion Energy select 1,000 feet for the main line measurements?

A. The Company selected 1,000 feet as the measured length in order to have a full picture of the character of the area surrounding a customer's premises, including street crossings, while excluding characteristics that would likely be distinct between neighborhoods. 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

[1] The only exception 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 discussed later in my testimony.

measurement length increases. One thousand feet produces 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 DEU determine the service line cost?

A. The Company recorded the length and size of service line for each sampled meter. For the sampled meter shown on DEU Exhibit 4.03, page 1, the service line associated with this meter was 76 feet of one and 3/4-inch pipe. The length of service line was then multiplied by the current cost for the identified pipe size.

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

A. For each active meter installed in the system, the Company identified a comparable model. It then determined the current cost for the comparable model, along with standard ancillary facilities. This current total cost was then assigned to the sampled meters.

Q. How did Dominion Energy establish the current cost levels?

A. The Company's Distribution Engineering Department provided the current cost figures for each component included in the analysis. The costs for IHP 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 current engineering estimates for standard meter sets of like size. DEU Exhibit 4.03, page 2, lists the cost data for main, service line, and meter sets used to price the facilities identified through the sample measurements.

Q. How was the sample used to establish the small-diameter IHP main investment by rate class?

A. DEU Exhibit 4.03, page 3, shows the calculation of plant investment for small-diameter mains for each rate class. Column C, lines 1-32, shows the average investment in mains

by installed meter capacity rating at current cost. DEU multiplied these average values by the number of active meters in each rate class. The products of these calculations is shown in columns D through I, lines 1-32 of DEU Exhibit 4.03. The unadjusted total for each rate class is shown on line 33. The sum of the values on line 33 is shown in column J. The total in column J, line 33, 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 K, line 33). The percentage reduction required to proportion the unadjusted total investment (column J, line 34) to equal the book investment was then applied to each line of column K to arrive at the adjusted class totals shown on line 34.

Q. How was the sample used to establish the service-line and meter/regulator investment by rate class?

A. DEU Exhibit 4.03, page 4, shows the calculation of plant investment for service lines for each rate class. DEU Exhibit 4.03, page 5, 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 in the same manner 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. The Company performs this step as part of the study in order to ensure that no component of plant is given too much weight when the three components of the Distribution Plant Factor Study are combined.

Q. What costs are allocated using the Distribution Plant Factor?

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 Distribution Plant Factor Study?

A. The results are shown in DEU Exhibit 4.03, page 6, columns B-H, rows 5-7. The Distribution Plant Factor Study shows that 97.85% of distribution facilities are installed to serve GS customers, 0.24% are installed to serve FS customers, 0.03% are installed to serve IS customers, 1.78% are installed to serve TS customers, 0.09% are installed to serve TBF customers, and 0.01% are installed to serve NGV customers.

D. Distribution Throughput Factor Study

Q. Please describe the Distribution Throughput Factor Study.

A. The Distribution Throughput Factor Study calculates an allocation factor based on the commodity volumes delivered through the intermediate-high pressure ("IHP") distribution system, and is attached as DEU Exhibit 4.04. The factor was developed by identifying customers that are not connected to the IHP system and then subtracting the Dths delivered to those customers from the commodity-throughput numbers.

Q. What costs are allocated using the Distribution Throughput Factor?

A. The costs associated with large-diameter IHP main lines (greater than 6 inches in diameter) are 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. Customers that are not connected to the IHP system receive no benefit from these facilities and are therefore allocated none of these costs. The booked cost of the large-diameter main lines is used 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 developed from the study is shown on DEU Exhibit 4.04 on line 7, columns B through G. The study shows on line 7 that rate classes other than the GS class, such as

the Transportation Service rate class, have very few customers connected to the IHP distribution system, while in the case of the GS class, nearly all of the customers are served from the IHP system. As a result, transportation customers should be allocated a relatively small portion of costs associated with large-diameter mains.

E. Design-Day Factor Study

Q. What is the Design-Day Factor Study?

A. The Design-Day Factor Study is conducted to assign responsibility for the Design Day between the rate classes, and is attached to my testimony as DEU Exhibit 4.05. This factor was used to allocate costs related to the coincident peak demand of customers.

Q. How was the Design-Day Factor calculated?

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 TSF, TBF and NGV rate classes. The contract demand attributable to customers served under the TBF and TSF rate classes was directly assigned. The total firm-contract demand for these two classes was 268,360 Dth. The NGV class was assigned 729 Dth of peak demand based on the average use per work day. The balance of the design peak day attributable to the GS and FS classes was 1,173,103 Dth. These calculations are shown on DEU Exhibit 4.05, lines 1 and 2.

Q. Please explain the history of allocating some of the Design Day factor to interruptible customers?

A. The Commission's order in Docket No. 07-057-13 stated: "[W]e are persuaded by the Division that interruptible customers contribute to peak demand and therefore these customers should receive some allocation of peak demand in the company's next cost-of-service study." In the Company's 2009 General Rate Case, it modified the Design-Day Factor Study to allocate the costs associated with the portion of the design peak day that exceeds the average peak requirements of the firm customers to interruptible customers.

Q. What is the Company's proposal regarding the inclusion of interruptible customers in the Design-Day Allocation Factor in this case?

A. The Company does not believe that interruptible customers should be assigned peak demand responsibility. Arguably, an interruptible customer benefits from being on a system built to handle a peak event because peak days are infrequent and, consequently, interruptions are also infrequent. However, in an actual peak-day event, the interruptible customer will be curtailed and will not be contributing to the costs incurred on the peak day. If the interruptible customer chooses not to curtail, they will be assessed penalties that will be credited back to firm customers. If interruptible loads are included in the Design-Day Factor Study, there is a risk that an excessive level of cost will be allocated to interruptible customers.

Q. What design demand is used in developing the Design-Day Factor?

A. The Company used the 2020 design-day demand from the 2019 Integrated Resource Plan ("IRP") as the basis for this study. The Utah design-day demand, updated for transportation contracts, for 2020 is projected to be 1,706,275 Dth.

Q. How was the 1,173,103 Dth of design peak day apportioned between the GS and FS rate classes?

A. An analysis of the population for these classes was performed using data from the Company's billing system to establish the proportionate responsibility for each class. This study involved estimating the contribution to peak for customers grouped by weather zones within the two remaining rate classes. The total estimated design-day demand was calculated using individual customer data and was then summed by rate class. The remaining design-day demand was allocated between these two classes based on their share of the calculated peak.

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

A. The results are shown on line 2 of DEU Exhibit 4.05. The GS class was determined to be responsible for 80.2% of the Design Day demand, the FS class was determined to be responsible for 1.14%, the transportation classes were determined to be responsible for 18.61%, and the NGV class was determined to be responsible for .05%.

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

A. Yes. I have also shown on DEU 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 25.6%, and the FS customers have an average load factor of 45.4%.

F. Cost-of-Service Results

Q. Please describe the results of the COS Studies.

A. DEU Exhibit 4.06, page 1 shows the results of the COS Studies. Lines 1-49 summarize the revenues, expenses and rate base allocated to the different rate classes using the factors explained above. Lines 50 and 51 show the Rate of Return and Return on Equity by class before the deficiency. Line 53 shows how the deficiency needs to be assigned to each class in order to avoid inter-class subsidies. Line 54 is the TBF COS adjustment that I will discuss below. Line 55 represents the total revenue requirement (COS with deficiency). Line 57 shows the revenue that needs to be collected from each class after giving each class a credited share of the general related revenues.

Q. Is the Company proposing that any rate classes pay less than their full cost of service?

A. The Company only recommends that the TBF class be less than full cost in order to prevent these customers from bypassing the Dominion Energy Utah distribution system.

Q. Is there a way to determine if a class is paying its full cost?

A. Yes. Using forecasted revenues, the Company has calculated that the return on rate base for 2020 would be 6.93% without any of the additional revenue requested in this case. Exhibit 4.06, page 2, line 2, shows the return on rate base provided by each class. Line 6 shows a metric called the rate of return index. This metric reflects the degree to which a class is to paying its full cost. If the rate of return index is lower than one, the class is paying a return that is lower than 6.93%, and hence, is providing revenue that is below full cost. If the number is higher than one, the class is paying more than full cost. Additionally, line 3 shows how much the class revenue would have to change for the

class to pay exactly 6.93%.

Q. Are you proposing to change rates by the percentages shown on line 5?

A. No. This analysis simply reviews where the rate classes are, without any increase in revenue. The analysis is limited to existing rates, without the revenue deficiency and the adjustment from the subsidized TBF class. Lines 8 – 10 show the adjustments that are made to each class to reach the total revenue requirement requested in this case, and line 13 shows the percentage increases to the DNG portion of rates in each class.

Q. Why are some classes seeing a larger increase than others?

A. The rates DEU has calculated move each class to full cost. Classes that are further from full cost have a higher increase. Since the last general rate case, the Company has continued to see larger GS and FS customers, along with one TBF customer move to the TS[2] class, where they are relatively small customers as compared to others in the TS class. Costs that are allocated to each class are highly affected by the number of customers in the class and the costs that are associated with those customers. As large customers have left the GS and FS classes, that has left smaller GS and FS customers to pay the remaining costs. In the TS class, new customers brought new costs to a class that was already being subsidized by other classes. As such, customers changing classes, combined with moving the classes to full-cost rates caused larger increases in some classes while others had smaller increases.

Q. You mentioned that one TBF customer switched to the TS class. Why would this switch occur when the TBF customer is receiving a heavily subsidized rate?

A. While the TBF rate is subsidized, the TS class is subsidized more because the rate for that class was designed for large industrial customers, and now the lion's share of customers in the class are smaller commercial customers. The rate was never designed or intended for smaller commercial customers, and they have enjoyed this subsidized loophole since the 2009 rate case. DEU believes it is time for this loophole to be closed

[2] For purposes of cost allocation, TSF and TSI are the Transportation Service (TS) class. Differences between TSF and TSI customers will be implemented during rate design where firm costs will be collected through a demand charge that is only paid by TSF customers.

so that all customer classes are paying their full share of the system costs.

Q. Do you believe the proposed increase to the TS class should be made gradually?

A. The principal of gradualism is often mentioned as a way to reduce rate shock to customers who may be moved to a higher rate. However, as I discuss in greater detail below, the TS rate class has enjoyed a gradualism approach (*i.e.* lower than full cost-of-service) for nearly three decades. Because the Company has gradually increased rates in recent cases, little if any improvement has been made in reducing the inter-class subsidy. Thus, gradualism, in this instance, has not addressed the problem and, if continued, will only result in TS customers avoiding paying the full cost of service for years into the future. It is time to bring the TS rate class to full cost of service.

Additionally, it is important to note that, while rate stability is an important principle in ratemaking, it is not the most important principle and is not the only factor that should be considered. It is most important that rates be fair and equitable. In his book, Principles of Public Utility Rates, James Bonbright mentions eight criteria to create a desirable rate structure. Of the eight, he lists three as being "primary, not only because of their widespread acceptance but also because most of the more detailed criteria are ancillary thereto."[3] The three criteria he lists as primary are:

1. Fairness of the specific rates in the apportionment of total costs of service among the different consumers.
2. Effectiveness in yielding total revenue requirements under the fair-return standard.
3. Efficiency of the rate classes and rates blocks in discouraging wasteful use of service while promoting all justified types and amounts of use.

Criteria two can be obtained even with inter-class subsidies, but the fairness and efficiency objectives fail when subsidies exist as they have for the TS class for many years. Fairness to the other customers weighs strongly in favor of requiring the TS class to pay its full cost of service. Other rate classes should not be burdened with subsidizing the TS class rates. Each rate case that passes where rates are "gradually" increased to

[3] Bonbright, James C. Principles of Public Utility Rates. New York: Columbia UP, 1961. Print.

avoid rate shock perpetuates a subsidy that benefits some customers at the expense of other customers, and creates a larger problem for each subsequent rate case.

Q. Please describe the inter-class and intra-class subsidies in relation to the movement of commercial customers to the TS class?

A. Having TS rates that are below the cost of service, coupled with the low market prices of gas, has allowed large commercial customers in the GS and FS class to arbitrage the rates and take advantage of the subsidy in the TS class. Because the TS class was originally designed for large industrial customers using 100,000 Dth and over, a pricing loophole was created that allowed these commercial customers to realize large cost savings simply because they were signing up for the "volume discount" provided by TS class rates, without using enough natural gas to merit that discount. Each additional small customer that moves to this class increases the inter-class subsidy paid by general service customers. As I discuss below, each small customer that moves to the TS rate class also increases the intra-class subsidy paid by large transportation customers.

Q. What effect has this migration of commercial customers to the TS rate class had on rates?

A. Over the past six years, more costs have moved into the TS class while the revenue to cover those costs has not correspondingly increased. As a result, in order to eliminate subsidies, the Company would have to increase rates to both the GS rate class and the TS rate class to a greater degree in order to eliminate these subsidies than it would have if the commercial customers had remained on a sales rate schedule.

Q. Were the customers that moved to the TS class paying full cost rates in their former class?

A. Unfortunately, if the customer was in the GS class prior to switching to the TS rate class, they were likely subsidizing the smaller GS customers due to the large 45 Dth block break that has been in place for many years. By moving from the GS class to the TS class, these customers essentially compounded the money they are saving by reducing their subsidy of small GS customers and moving to a rate that is being subsidized by the

other rate classes. The Company's cost of service and rate design proposals in this case significantly reduce these inter-class and intra-class subsidies.

Q. Has there been any recent movement in getting the TS class closer to a full cost rate?

A. Yes. As part of the settlement in the Company's 2013 general rate case, customers in the TS class took two partial steps toward full cost rates. The first step occurred in March 2014 when these customers were moved part of the way to full cost. Then in the fall of 2015, the rate was adjusted to bring the TS class still closer to full cost. Even with these steps, however, TS customers are currently only paying about 40% of their full cost of service (DEU Exhibit 4.06, page 2, line 6, column F), meaning that other customers are providing a 60% subsidy to the TS class.

Q. Has the Company informed the TS customers of its intentions to move to a full cost rate?

A. Yes. The Company is sensitive to rate shock that customers may experience if unexpected rate increases occur. Accordingly, the Company has gone to great lengths to inform these customers that the Company is moving toward full cost of service.

Q. How has the Company informed transportation customers of its intentions?

A. Every fall, Dominion Energy holds a "customer meeting" where old and new transportation customers can learn about price trends, new policies, and upcoming regulatory issues. At each of these meetings, DEU representatives have informed customers that rates would be proposed to move to full cost in the next general rate case. These meetings are well-attended and far-reaching. Customer meetings have been held annually since the 2013 general rate case. Meetings were held on September 16, 2014, September 15, 2015, September 8, 2016, September 7, 2017, and September 13, 2018. Exhibit 4.07, pages 1 through 4 are slides from a presentation given at the 2014-2017 meetings, respectively. Pages 5 and 6 of Exhibit 4.07 were both slides that were used in the 2018 customer meeting.

A special customer meeting was held on February 28, 2014 to educate TS customers

about the results of the then-recently completed rate case. Exhibit 4.07, page 7, is a slide from that meeting. In addition to the customer meetings, DEU has given presentations at meetings for groups such as the Utah Association of Energy Users ("UAE"), where attendees were informed of the Company's plans. Exhibit 4.07, pages 8-10 are slides from a presentation given to the UAE on February 18, 2016. Finally, given that the Company has proposed to move TS rates to cover the full cost of service in the last several rate cases, intervening TS customer groups who have previously argued for gradualism are well aware of the Company's plans to implement full cost rates in this case.

Q. Does the Company make more money by switching these customers to full cost?

A. No. If rates are designed accurately, customers in all classes will be paying their share of the revenue to cover their costs until the next general rate case. The Company will simply collect the revenue requirement the rates were designed to collect.

Q. Are there any companies that benefit if the TS class does not move to full cost?

A. Of course those companies that are paying a subsidized rate benefit. Additionally there are companies that serve as marketing agents who are in the business of managing customer supplies. The subsidies I've described in my testimony make it easier for such companies to solicit larger GS and FS customers to switch to the TS rate class and to purchase the marketing agents' services. The reduction or elimination of that subsidy makes it more difficult for the marketing agents to economically justify that switch of rate classes. Dominion Energy believes that all customers in all classes should pay for the costs that they cause. Only in doing so will customers be paying their fair share of system costs.

Q. Could a move to full-cost rates now reduce rate shock in the future?

A. Yes. DEU Exhibit 4.08 shows the first of month price TS customers have historically paid for natural gas commodity, as well as current forecasts of a gradual increase in gas prices over the coming years. As the chart shows, commodity costs are near a 10-year historical low, which directly leads to TS customers saving on overall energy costs. The low energy prices these customers are enjoying will more-than offset the proposed

increases in this case. Waiting until a future date to make the move to full cost, when commodity prices are higher, could lead to more rate shock than if the move to full-cost happens now. Additionally, as Mr. Mendenhall explains in his direct testimony in this matter, there have been substantial cost savings to customers caused by reductions in operating and maintenance expenses and tax reform. This has greatly reduced the revenue deficiency in this case. As a result, this is an excellent time to correct these subsidies and minimize rate shock.

G. NGV Class Cost of Service

Q. Have there been changes to the NGV class since the Company's last general rate case?

A. Yes. The current DNG rates in the NGV class were set in 2013. At that time, the NGV rates went to full cost instead of being subsidized. Gasoline and diesel prices were also high enough that CNG was still a competitive fuel for consumer vehicles. Vehicle manufacturers were still producing CNG vehicles and the Company was forecasting growth in the volumes at its CNG stations. Since that time, however, the costs of gasoline and diesel have dropped, and with the rise in popularity of electric cars, there are no longer any manufacturers producing CNG-powered vehicles. To compound the issue, many customers that used the fueling stations for their fleets have now built their own fueling facilities. This has led to significantly reduced volumes being consumed on the NGV rate compared to when the rates were set. DEU Exhibit 4.09 shows the history of volumes that have been dispensed through the Company's facilities since 2014.

Q. What happens to the rates when volumes are drastically reduced?

A. The rates are calculated by determining the costs (plant, maintenance, etc.) that are allocated to the CNG stations and dividing those costs by the total test year volumes. If plant costs stay constant while volumes drop, the rate will increase. This causes a circular process where rates increase, leading to fewer customers using the stations, which in turn leads to rates increasing further, leading to even fewer customers using the stations. The process would theoretically continue until the rates became so high that it would be uneconomic for customers to use the facilities, and the Company would have a

stranded investment in its CNG infrastructure.

Q. What has the Company done in this Docket to reduce the rate increase in the NGV class?

A. First, the plant that is allocated to the NGV class has depreciated since the current rates were established in the 2013 rate case. While this helps, it does not completely offset the reduction in volumes that have occurred. To help with the reduced volumes, the Company has been implementing new programs aimed at large trucking, an industry that is increasing its use of CNG due to CNG's lower-carbon impact as compared to diesel fuel, and due to the availability of renewable natural gas ("RNG") incentives for transportation purposes.

In December 2018, the Commission approved the Company's request to add Section 5.07 to its Utah Natural Gas Tariff No. 500 ("Tariff"), which allows RNG transporters to transport RNG on the Company's system to Company-owned CNG stations for re-distribution to the RNG transporters' CNG customers (usually fleets). The Company has received Commission approval for one contract under Section 5.07. This contract increases revenues at the CNG stations and helps keep the existing rate low.

Q. How much revenue is DEU incorporating into its forecast due to the RNG developments on the system?

A. For the 2020 test period DEU has added an incremental $599,042 per year related to the RNGT contract.

Q. How did the Company determine this incremental amount of revenue?

A. In conversations with the contracted party, the Company determined a reasonable estimate of the volumes that could be added to the NGV system and the associated revenue based on the terms of the contract.

Q. What effect does this additional revenue have on the rate?

A. The DNG rate proposed including the RNG revenues is $8.60331. If the revenue was not included in the calculation, the rate would increase to $10.90287. This is the

equivalent of $0.28 per gallon equivalent at the pump.

IV. RATE DESIGN

A. Intra-class Subsidies and Cost Curves

Q. Is Dominion Energy concerned about intra-class subsidies (subsidies within a class of customers)?

A. Yes. In the Cost-of-Service section of testimony, I discussed the Company's strong stance that each class of customers should be required to pay its appropriate share of the overall revenue requirement. Reducing intra-class subsidies is another step in ensuring cost causation principles are followed.

Q. Has the Company performed analyses to determine if intra-class subsidies are occurring?

A. Yes. The Company has used cost curves for decades to graphically identify regions of subsidization with a rate class. A cost curve graphically represents unit cost across the annual usage range within a class. Understanding this relationship helps the Company design rates that reduce intra-class subsidies by accurately assigning costs to those customers that cause the costs. In preparing the rate design proposal for this case, the Company performed a very thorough cost curve analysis for each class of customers.

Q. Are cost curves an accurate depiction of the costs that are caused by different customers within a class?

A. Yes. In recent years, the Company has gathered very granular data on specific customers in all of the classes to calculate detailed cost curves. The calculation and analysis of these curves were very informative regarding the current intra-class subsidies in both the GS and TS classes.

Q. Please discuss the development of the cost curves and how they can be used to reduce intra-class subsidies

A. Cost curves are a graphical representation that show the relationship between the costs and the usage for individual customers within a class. Understanding this relationship helps the Company design rates that reduce intra-class subsidies by accurately assigning costs to those customers that cause the costs.

Q. What is the first step in developing a cost curve?

A. The first step in the process is to categorize the components of the COS (O&M expenses, depreciation, taxes, and return on rate base) into four functional categories. The categories used are:

1. **Customer Costs:** Those costs that are driven by the number of customers served. While these costs are primarily customer-related, they frequently increase with the size of the load being served.
2. **Demand Costs:** Those costs that are driven by the design-day requirements of firm customers.
3. **Distribution Plant Costs:** Those costs that are related to the meter, service line, and small diameter main associated with each customer.
4. **Throughput Costs:** Those costs not specifically assigned to the customer, demand, or distribution plant categories.

Q. What happens after the costs are classified?

A. Though the curves are a graphical tool, they are derived by analyzing very granular customer-specific cost and usage data. Two data points are needed for each customer in a class: historical usage and share of the classified costs on a per-Dth basis. Once these two data points are calculated for each customer, the relationship can be plotted on a chart as shown in the three charts in DEU Exhibit 4.10. The red cost curve is then fit to these points using regression.

Q. How did the Company determine each customer's share of the classified costs?

A. The customer-specific costs for each of the four categories were determined differently, as explained below.

1. **Distribution Plant Costs**: The Company gathered the same information that was

used in the cost-of-service study for each customer, including the cost of each customer's meter, service line, and small diameter main. Then, DEU used the plant cost for each customer to calculate each customer's proportionate share of the classified distribution plant costs.

2. **Demand Costs**: Using historical usage and heating degree day data for each customer, DEU calculated a linear regression slope and intercept for each customer. This provided a formula to estimate how much gas a customer will use on a design-day. The Company used the design-day usage to calculate each customer's proportionate share of the classified demand costs.

3. **Customer Costs**: The Company divided all of the classified customer costs by the number of customers in each class.

4. **Throughput Costs**: DEU used each customer's annual usage to determine its proportionate share of the throughput costs.

Finally, DEU summed each of these four costs to provide the total cost to serve the customer and then divided this cost by the customer's usage to determine the cost per dekatherm shown on the y-axis of the chart.

Q. What happens after you have calculated the cost curve?

A. The Company typically designs rates for each class using a mix of basic service fees, demand charges, seasonal differentials, block breaks, and volumetric rates so that the revenue from each customer will be as close as possible to the costs the customer causes. The revenues of each customer can be charted similarly to the costs to produce a revenue curve. This allows the Company to then compare the cost curve and the revenue curve. When the revenue curve deviates from the cost curve, the customer at that given usage level is either paying more than or less than the average cost of the service they are receiving. The goal of good rate design is to match as closely as possible the cost and revenue curves in order to minimize intra-class subsidies.

Q. Does the Company have an objective way to ensure the cost and revenue curves are as close as possible?

A. Yes. The Company has developed an algorithm that optimizes the rates for each class. The algorithm solves for block breaks and volumetric rates that provide the least variation between cost and revenue.

Q. Is Dominion Energy relying on cost curves for its rate design proposal?

A. The Company is not using the cost curves to produce rates for all rate classes in this case. Though the cost-curve analysis has provided valuable insight into the costs caused by specific customers, the Company is not proposing to completely eliminate the intra-class subsidies at this time because it could result in drastic rate increases, unstable rates, incorrect price signals, and other unintended consequences. I discuss the existing rate design and the specific proposals of each class below.

B. Existing Rate Design

Q. Please summarize how the Company's rate design proposals were developed.

A. The current rate design was implemented in Docket No. 13-057-05. In that docket, the Company continued its long-standing use of declining block rates, basic service fees, demand charges, administration fees, and summer/winter rates to collect the proposed revenue requirement. These same rate design tools are being proposed in this case to collect the proposed revenue requirement. Though some of the Company's proposed rate design is similar to past general rate cases, cost curves have not been used to derive final rates for all rate classes in this case.

Q. Are there any special circumstances from Docket No. 13-057-05 that have carried over to your proposal in this Docket?

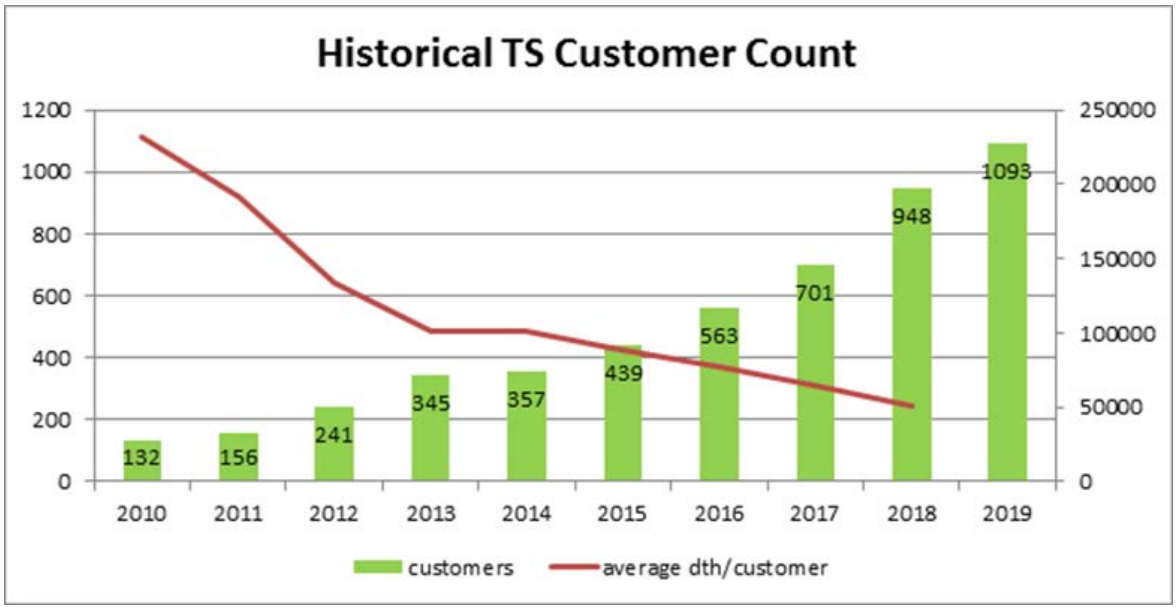
A. Yes. In that docket, the parties settled the cost-of-service to include two gradual steps to bring the TS class toward full-cost rates. As I mentioned earlier in my testimony, this offered TS customers a gradual step toward full cost rates. The first step moved customers to 60% of full cost in March of 2014. This was followed by another step to 72% of full cost in the fall of 2015.

Q. Did these steps toward full-cost rates achieve the desired results?

A. No. When the Company filed its 2016 general rate case in Docket No. 16-057-03, the TS class was not paying for 72% of its full cost. It was only paying 53% of its full cost. Over the last three years, that regressive trend has continued to the point that the TS class is only paying for 43% of its full cost with existing rates. In other words, the TS class has moved *farther* from full-cost rates since 2013. In other words, the subsidy to the TS class has grown, not decreased.

Q. How did this subsidy increase, even with the steps taken toward full-cost rates?

A. Since rates were set below full cost, there was still an incentive for customers to switch from sales classes to the TS class. In fact, since 2014, when the rates were stepped toward full-cost, 736 small customers have left sales classes to join the TS class. The chart shown below shows the increasing customer count and the declining usage per customer in the TS class.



Q. Does the growth in the class affect your rate design proposal?

A. Yes. Since the bulk of the customers in the TS class are now small customers, the existing rate design is not sufficient to collect the costs from the customers that are causing them. These customers simply don't belong in a class with the rate design of the TS class.

Q. What problems has the Company discovered while performing the Cost-of-Service studies and the calculation of the Rate Design?

A. While preparing for this case, the Company determined that the intra-class and inter-class subsidies that exist within the TS class, as well as the intra-class subsidy in the GS class, caused the following problems:

1. The cost of service in the TBF class is showing an abnormally large increase. This is due to only two customers being left in the class, one of which has reduced its usage considerably.

2. The intra-class subsidy in the TS class has created significant challenges in optimizing TS rates without causing significant rate increases for certain groups of customers.

3. The inter-class subsidy in the TS class has caused customers to move to a rate class that wasn't designed for them.

4. There is an intra-class subsidy in the GS class where large GS customers are subsidizing small GS customers. The combination of this intra-class subsidy and the inter-class subsidy to the TS class provides a large incentive for customers to switch to the TS class.

Having customers in the classes that weren't designed for them has raised anomalies in nearly every aspect of the cost-of-service and rate design processes. The Company believes that, to solve the widening subsidies, it will be best to make the steps proposed below in this case, with additional anticipated steps to follow in the next general rate case.

C. TS Class Rate Design

Q. Is the Company proposing to change the rate design in the TS class?

A. No. The Company is proposing to leave the block breaks and the block differentials the same as they are now. DEU simply proposes that the TS class, as a whole, be "percentage increased" to pay the full cost rates.

Q. Do the rates proposed by the Company resolve the inter-class and intra-class

subsidies you described in your testimony?

A. The Company's proposed rate design will solve the inter-class subsidies. While it will not resolve the intra-class subsidies, it will move the Company towards that result. The Company performed an extensive rate design analysis that showed many small TS customers are receiving service in a rate class not designed for them. Their usage is not high enough to cover the fixed costs associated with TS service; costs that are easily paid for by larger TS customers. The movement of these small customers into the TS class has created very large inter-class and intra-class subsidies that need to be addressed. The analysis also shows that there is not a simple solution to fix this issue. As discussed below, the Company recommends that a multi-step approach will be an effective approach to the end goal of achieving optimized rates.

Q. Please explain how the Company proposes to correct rate design in the TS class in the long term.

A. Accurately setting rates for the TS class will be a multi-step process. I am proposing that two of those steps be approved in this rate case, and that the last remaining step be completed in the next rate case after customers have chosen a class based on an economic analysis of full-cost rates, rather than the existing loophole based on subsidies.

Q. Please describe the first step in the Company's proposal.

A. The Company is proposing that, going forward, for new customers to switch to the TS class, the minimum use requirement be set at 35,000 Dth per year. This will prevent new small customers from receiving service with a highly subsidized rate and will ensure that the customers that ultimately remain in the class belong there. This step needs to be implemented before the cost curve analysis can be done in the next general rate case to optimize rates within the TS rate class.

Q. How did DEU determine the minimum use amount of 35,000 Dth/year?

A. The Company conducted two analyses to determine that 35,000 Dth/year is a suitable volume to ensure that only customers for which the existing rate design is appropriate can become new TS customers. These analyses are reflected in the charts shown in DEU

Exhibit 4.11. First, the Company analyzed the makeup of the TS class in 2011, before the significant growth occurred in the TS class. In 2011, the median TS customer used approximately 51,000 Dth of gas. By 2018, this had changed to approximately 9,000 Dth. Charts 1 and 2 demonstrate how the makeup of the transportation class has changed since 2011. In 2011, most of the customers used more than 40,000 Dth of gas annually. In 2018, this changed so that more than 80% of customers use less than 40,000 Dth annually.

Next, a cluster analysis on annual usage of current TS customers showed that a possible separation point within the class was at approximately 30,000 Dth per year (see Chart 3). Cluster analysis is a mathematical technique that identifies subsets within a larger group where members of a subset are more similar to each other than to members outside of the subset. After analyzing each of these characteristics of the TS class customers, the Company determined 35,000 Dth is a suitable minimum use requirement.

Q. What are you proposing for existing customers that fall below the 35,000 Dth minimum?

A. These customers will be grandfathered into the existing policy and can stay in the TS class or switch to a sales rate, at their option.

Q. Please describe the second step in the Company's proposal.

A. The second step in solving the over-all subsidy problem is to move the TS rate class to full cost-of-service. Doing so will eliminate the subsidy that the GS class pays to the benefit of the TS class. This step, together with the minimum use amount discussed above, send correct price signals to customers, and will encourage customers to select the rate best suited for them.

Q. Why is it important for customers to be in the rate class that best reflects their usage?

A. If customers are receiving service under the proper rate class, the Company will be in the best position to utilize rate optimization to eliminate all class subsidies.

Q. When does the Company propose to conduct this rate optimization and to modify rates consistent with cost curves in the TS rate class?

A. In its next general rate case, the Company anticipates taking the third step in its rate-corrective proposal: modifying the rates in the TS class using cost curves to identify the optimal rate structure for that class. This step will eliminate the intra-class subsidization that exists within the TS rate class.

Q. Why doesn't the Company recommend taking all three steps now, and propose full-cost, fully optimized rates in this case?

A. The small TS customers and large TS customers are so dissimilar in terms of costs and usage that designing an optimal rate that matches costs to each type of customer is impractical in implementation. To apply cost-optimization now, with customers misclassified, would result in an extraordinary rate increase for some of those customers, and would result in rate shock. Further, if DEU were to optimize rates now, many of the customers who are currently misclassified would likely move back to the GS rate class promptly, creating a similar problem in terms of the rate design in the next rate case. The unintended consequences of a total course-correction would cause significant harm. Therefore, the Company recommends the implementation of the first two steps now to reduce inter-class subsidies and send proper price signals before optimizing rates.

Q. Will you summarize the overall effect of your rate design proposal for the TS class?

A. Yes. The Company proposes moving the TS class to full-cost rates. Doing so is a significant step toward eliminating inter-class rate subsidization and achieving the ratemaking principle of each customer paying its share of costs, regardless of rate class. The Company acknowledges that rate design changes could further-improve the accuracy of cost-assignment within the existing customers of the TS class. But such changes might be premature given that many of the small customers may choose to be in a different class when the subsidy is gone. Given these factors, it is better to wait until the makeup of the class has stabilized before further adjusting the intra-class rate design.

D. GS Class Rate Design

Q. Did the Company utilize cost curves in its analysis of the rate design for the GS class?

A. Yes. The cost curve for the GS class showed strong consistency from customer to customer and verified that the use of declining block rates is an appropriate way to collect the revenue from the customers.

Q. Is the Company proposing any changes to the GS rate design?

A. Yes. In the Company's analysis, it was determined that the current block break of 45 Dth is too high to achieve accurate intra-class cost allocation. This block was originally developed in the 1970s when the typical customer usage was at least twice what it is today. If the 45 Dth block break were to remain, larger GS customers would continue to subsidize smaller users. This intra-class subsidy is one of the factors that led to the mass migration of large GS customers to the TS class over the last decade. In an attempt to reduce this subsidy, the Company is proposing that the block break be moved down from 45 Dth to 30 Dth.

Q. Will this move from 45 Dth to 30 Dth be sufficient to eliminate the intra-class subsidy in the GS class?

A. No, but it is a move in the right direction and will reduce rate shock for small GS customers in the future. The Company's analysis established 8 Dth as the most efficient break point. At this point, the large and small customers would each be paying close to the costs they cause in the class. The Company chose 30 Dth as the block break simply as a step in the right direction. The cost curves in DEU Exhibit 4.10 show three different scenarios. In all three scenarios, the red cost curve stays the same. The first chart shows how revenue would be collected under the existing 45 Dth block break. Whenever the green line is below the red line, customers are being subsidized. Conversely, when the green line is above the red line, customers are subsidizing other customers in the class. The second chart shows how revenue would be collected under the proposed rates with a 30 Dth block break, and the third chart shows how revenue would be collected with an 8

Dth block break. The Company anticipates moving to an even lower block break in future rate cases.

Q. What effect does a lower block break have on the bill of a typical GS customer?

A. If the block break were set at 30 Dth, the rate increase to a typical customer using 80 Dths in this case is $42.16 on an annual basis, as shown in Exhibit 4.16, page 1. This increase is caused by an increase in revenue requirement, the proposed change in block breaks, and the change from 30 to 20 years to determine normal heating degree days (discussed below). Exhibit 4.16, page 3 shows that the annual increase for a typical customer due to the increase in revenue requirement and heating degree days is about $26.70. The remaining $15.46 is due to the change in block breaks. Though the new block breaks do increase the typical bill, it is not an unreasonable increase to move toward optimal rates that significantly reduce intra-class subsidies.

Q. What is the combined effect of moving the GS block, leaving the TS rate design as it is, and moving the TS class to full-cost rates?

A. The Company is trying to address inefficiencies in the existing rate design without unintended consequences. For example, if the TS class is paying full-cost rates, it would be reasonable to assume that some customers might go back to sales classes and take their costs with them. Adjusting the block breaks now might sufficiently reduce subsidies in the TS class for the existing makeup of the class but might be an inefficient rate design for the customers that ultimately remain in the class after it is brought to full cost of service. At the same time, if any of these customers go back to the GS class, they will be paying less of a subsidy to the small GS customers. This proposal does not completely eliminate subsidies, but it is a step in the right direction and will be a signal to customers of the Company's intention to eliminate intra-class subsidies. Therefore, both the GS and TS classes are making appropriate steps so that future rate designs can eliminate intra-class subsidies.

E. Rate Design for FS, IS, and TBF Classes

Q. Are you proposing any changes to the rate design in the FS, IS, or TBF classes?

A. No. These classes will all be treated in the same manner as the TS class. They will see a change in the respective cost allocations but will not see a change to the block breaks or the block differentials. These customer classes have all had customers leave in the last decade to take advantage of the subsidized rate in the TS class. If the Company were to change the rate design in these classes to accommodate the current customers, there would be risk that the proposed changes would not be effective for customers who choose to return to one of these classes once the TS class is at full cost. As with the TS class, the Company proposes to adjust any block breaks or block differentials after the customer classes have settled following the implementation of full-cost rates for the TS class.

G. Administrative Fee

Q. Are you proposing any changes to the Administrative Fee that is charged to the TBF, TS, and MT customers?

A. Yes. This fixed fee was last updated in the 2009 general rate case (Docket No. 09-057-16). As I discussed earlier, that class has experienced growth of 728%. This large growth affects the calculation of the Administrative Fee.

Q. How is this rate calculated?

A. The rate is calculated by determining all of the costs that are incurred through administering the transportation rates for all transportation classes and dividing that cost by the total number of transportation customers.

Q. What are the costs that are included in the numerator of the calculation?

A. Most of the cost is labor. Each TS customer has an account representative at Dominion Energy that helps the customer understand the terms of their contract and the effects of rate changes, and provides overall customer service. These representatives also work with customers during interruption events, hold-burn-to-scheduled-quantity events, and other matters impacting TS customers. The numerator also includes costs associated with the Company's gas supply department, which manages nominations of each of the 1,093 individual transportation customers on a daily basis. The gas supply department

also tracks daily and monthly imbalances. Each transportation customer is required to have telemetry, which requires site visits for periodic maintenance. There are also DEU employees that monitor and trouble shoot metering and billing issues. Finally, the costs of certain software packages are included in the calculation. I have included DEU Exhibit 4.12 which shows how the proposed Administrative Fee is calculated. The calculations shown will be rounded down to $3,000 per year or $250 per month.

Q. Are administration costs for smaller customers lower than those of larger customers?

A. Not necessarily. No matter the size of the customer, each will still require the same services that are included in the charge. In fact, smaller customers are often less familiar with nomination, interruption, and curtailment processes, and require more time with Company personnel to discuss and manage such matters.

Q. What would happen to rates if there was no Administrative Charge?

A. Bonbright's principles of ratemaking include the principle that rates need to be effective in yielding total revenue requirements under the fair-return standard. This means that once a fair revenue requirement has been determined for a class of customers, the utility is allowed to earn that revenue requirement under any appropriate rate design. In an extreme case, if the Commission were to order that there be no Administrative Charge at all, the revenue would need to be collected in some other charge to the customers. This could be accomplished through another fixed charge, or a simple increase in the volumetric rates as long as the Company could still recover the same revenue from the transportation customers. Lowering or eliminating the Administrative Charge would simply result in an increase of other charges to the class.

H. Basic Service Fee

Q. Are you proposing any changes to the Basic Service Fees?

A. No. The Company has reviewed the Basic Service Fees and has determined that the existing fees are sufficient.

I. Normal Heating Degree-Day Determination

Q. How is historical temperature data used in the rate design process?

A. When the Company is forecasting the volume of gas that will be used by the GS class in the test period to set rates, it does not try to predict whether the temperatures will be warmer or colder than normal. The objective is to design rates assuming normal temperature patterns.

Q. How does the Company analyze temperatures?

A. Temperature is measured using Heating Degree Days ("HDDs"). HDDs are calculated as the difference between 65°F and the daily mean temperature. A high HDD number indicates cold temperatures. For example, if the average temperature on a day was 60°F, that day would have 5 HDD (65-60). If the average temperature on a day was 30°F, that day would have 35 HDD (65-30), indicating the temperature was colder than on the day with 5 HDD.

Q. How much historical data is used to determine what is normal?

A. The Company has traditionally used the average of 30 years of historical data to calculate Normal HDDs. Currently, the established average is based upon the 30-year period ending December 31, 2010.

Q. Is the temperature consistent from year to year?

A. No. The temperature is unpredictable and changes from one year to another. DEU Exhibit 4.13 page 1 shows the total monthly HDDs for the heating season months from 2014 to 2018 (blue bars). The red line on the chart shows the calculation of the 30-year average HDDs for the same month. When a bar is under the red line, it indicates warmer weather than normal. When a bar is above the red line, it indicates colder weather than normal.

Q. Is the Company proposing a change to the calculation of Normal Heating Degree Days?

A. Yes. DEU is proposing that the time period used to calculate average HDDs be shifted

forward to extend through December 31, 2018. It is further proposing that the period include 20 years rather than 30.

Q. Why does the Company believe that shifting the average period to include the most recent eight years is appropriate?

A. The Company has periodically updated the time period used to calculate average HDDs to keep the average current and inclusive of recent temperature history. The current time period was proposed and accepted in the general rate case filed in July of 2013 (Docket No. 13-057-05).

Q. Why was a 20-year period chosen instead of 30 years or even 10 years?

A. The Company hopes to find a balance between the stability of an average over a longer period of time and the influence of variability in winter temperatures that have become more frequent since 2014. The 20-year period the Company proposes incorporates these more recent occurrences of extremely low HDD levels on the average, but it also includes enough history to temper that influence and avoid an average baseline that is set excessively low. The green line on Exhibit 4.13 page 1 shows that the 20-year period is slightly lower than the red 30-year line. This indicates that temperatures have risen slightly in more recent years. Though a shorter time frame, such as 10 years, could gain additional short-term accuracy, the Company feels it does not account for the possibility that the weather could still be cold. Using 20 years of data accounts for any recent changes in the weather while also accounting for the possibility of colder weather.

Q. What effect does this have on the rate design process?

A. DEU Exhibit 4.13, page 2 shows a comparison of usage in the GS class using both the 30-year and 20-year periods. If the 20-year period (warmer weather) is used to calculate the forecasted volumes in this case, there are fewer volumes available to collect the revenue requirement. These volumes are the denominator in the calculation of the volumetric rates. Therefore, the volumetric rates will be slightly higher under the 20-year period than if they were based on the 30-year period. It is important to note that, under either option, the rates are still designed to collect the same overall revenue requirement.

J. Design Rates and Fees to Collect the Required Revenue by Rate Schedule

Q. Has the Company calculated rates that correspond to the revenue requirement calculated by Mr. Stephenson and the COS Studies presented earlier in your testimony?

A. Yes, a summary of the proposed rates is shown in DEU Exhibit 4.14.

Q. Can the proposed rates in DEU Exhibit 4.15 be compared to the existing rates?

A. DEU Exhibit 4.14 includes the rates that are being proposed by the Company. These rates are calculated using the 20 year weather data as well as the 30 Dth block break in the GS class. For convenience and comparison purposes, DEU has also included in its Excel model in DEU Exhibit 4.18, the same summary that is shown in DEU Exhibit 4.14, but with the following scenarios:

20 year HDD calculation with a 45 Dth block break

30 year HDD calculation with a 30 Dth block break

30 year HDD calculation with a 45 Dth block break (existing structure)

These scenarios can be found on individual worksheets in the green rate design section of DEU Exhibit 4.18.

Q. Can any party in this case change model inputs and see the effect on the rates?

A. The rate design is calculated in green rate design tabs of DEU Exhibit 4.18. Components of the revenue requirement and cost-of-service can be modified in the model with changes flowing through to the final rates.

V. CET ALLOWED REVENUE PER CUSTOMER

Q. The Conservation Enabling Tariff ("CET") requires that the annual revenue per GS customer be calculated. Has Dominion Energy prepared a calculation of the allowed annual revenue and the monthly spread of the annual revenue per customer to be used in conjunction with the CET?

A. Yes. DEU Exhibit 4.15 shows the calculation of the allowed annual GS revenue per customer. Line 13, Column B contains the total revenue requirement assigned to the GS

class. This comes from the Rate Design Summary (DEU Exhibit 4.14 page 1, column I, line 11). This amount was divided by the average number of GS customers in the test period to arrive at the annual revenue per customer of $325.23. DEU Exhibit 4.15 also shows the calculation of the monthly allowed CET amounts for the GS class. The calculation of the spread of the annual revenue per customer over the 12 months was based on the forecasted monthly revenues for 2020.

Q. Has the Company calculated the annual bill for a typical GS customer based on the Company's proposed revenue requirement, COS studies and rate design?

A. Yes. DEU Exhibit 4.16, page 1 shows the difference between bill amounts for the typical customer using current rates (30-year HDD and 45 Dth block break) and the proposed rates (increased revenue requirement, 20-year HDD, and 30 Dth block break). Column F, row 14 shows that the typical GS customer using 80 Dth per year would realize an increase of 6.83%.

Q. What effect do the proposed rate changes to normal weather and the GS block break have on the typical bill of a GS customer?

A. The Company has provided pages 2-4 of DEU Exhibit 4.16 to show the results of different comparisons. Each of the pages compares the typical bill using the existing structure to the bill under one of the scenarios below:

Page 2 - 30 year HDD with a 45 Dth block break – (existing structure) 3.64% increase

Page 3 - 20 year HDD with a 45 Dth block break – 4.33% increase

Page 4 - 30 year HDD with a 30 Dth block break – 6.15% increase

VI. SUPPLIER NON GAS (SNG) ALLOCATION

Q. Please explain why you are proposing to change the SNG allocations in this rate case.

A. SNG costs represent the costs of gathering, transporting, and storing Dominion Energy's gas supplies on upstream pipelines. These costs are typically paid to third-party suppliers and included in the 191 Account. The changes in these costs are reflected in the Company's semi-annual pass through cases. The current SNG allocation method was

developed in Docket No. 84-057-07. The allocations were reviewed in Docket No. 95-057-02, but no changes were proposed to the SNG costs of firm sales customers. No significant changes have been made to the allocation method since the 1984 general rate case. The Company is proposing to change the allocation now in part because it has not been updated for more than 30 years, and because SNG issues related to the allocation have arisen in recent dockets including those relating to transportation imbalance charges, peak hour charges, and SNG/Commodity definitions.

Q. Why is the Company allocating SNG costs in a general rate case instead of a pass-through application?

A. The Company's Tariff currently states that "supplier non-gas cost class allocation levels will be established in general rate cases." This made sense at one time because cost allocations can take time and the technology 35 years ago was not as sophisticated as it is today. Changing SNG allocations outside of a general rate case in the past would have been time-consuming and unnecessarily delay an otherwise routine application like a pass through.

Q. Should the SNG allocation method continue to be reviewed only in general rate cases?

A. No. The tariff should allow enough flexibility that SNG cost allocations can be reviewed and refined at any time a new SNG service is acquired. If new costs are introduced in a pass-through application or a proposed tariff change, the Company should be allowed to revisit the allocation of the costs at that time. Accordingly, the Company proposes to modify the Tariff language referenced above. This change can be seen in the Company's proposed Tariff in DEU Exhibit 5.02. As I discuss further below, the Company's proposed SNG allocation creates SNG rates similar to the rates that were established in 1984 and percentage-changed in the pass through filings. As long as SNG costs and customers are not changing frequently, there is not a need to constantly update the class allocation levels. My recommendation is that these allocations should be monitored by the Company but only updated on an as-needed basis.

Q. How were the costs allocated in 1984?

A. The Company has limited information regarding the methods used in the 1984 docket. The testimony and exhibits from that case were prepared without the benefit of computers, and they do not contain enough detail to replicate the allocation process. We do know that the Company proposed updating the allocation in 1984 because the Company had just reorganized and separated upstream transportation operations and the associated costs from the distribution costs associated with running the utility. Prior to the reorganization, all upstream costs were included in a commodity rate. The change to a separate SNG and Commodity rate did not have a large impact on the rates the customers paid at that time. Once the allocations were set, any changes to the SNG rates were to be increased or decreased on an equal-percentage basis for each class of customers in each pass through application.

Q. Are you proposing a new method to allocate SNG costs?

A. Yes. Due to the lack of information from 1984, the Company conducted a new analysis using more current information related to cost causation and cost allocation.

Q. What were your objectives when developing the new allocation method?

A. There were three objectives in developing a new allocation method. First, the new method must allocate costs equitably among the classes of customers using cost-causation principles. Second, the method must use data that is available to the Company any time, not just during general rate cases. This will allow the Company to review the allocations any time without having to perform a full cost-of-service study. Finally, the resulting rate design must be easy to understand and administer since these costs will be recovered in the Company's pass through applications.

Q. Please explain how you are proposing to allocate the SNG costs in this Docket.

A. The Company created a standalone SNG allocation model that is similar to the COS allocation process I discussed earlier. This SNG Allocation model is included as DEU Exhibit 4.17. Page 1 of the exhibit, shows the cost of every SNG contract from the Company's most recent pass-through application in Docket No. 19-057-04 using the

SNG definition as approved in Docket No. 19-057-T01, with the effective date of the fall 2019 pass through filing. For convenience and comparison purposes, the blue tabs of the electronic model of DEU Exhibit 4.17 show the calculations using the SNG allocations that are currently in effect. The method used to allocate the specific contract is shown in column C of pages 1 and 2. Most of the contracts were allocated using the same firm sales factor that was used to allocate certain DNG costs. Two peak hour contracts (lines 50 and 54) were allocated using the Design Day allocator. The table below summarizes these two allocation factors.

	GS	FS	IS	TS	TBF	NGV	Total
Firm Sales Factor	97.3%	2.5%	0.0%	0.0%	0.0%	0.2%	100.0%
Design Day Factor	80.2%	1.1%	0.0%	14.6%	4.0%	0.1%	100.0%

These allocation factors are the same factors that were used to allocate certain DNG costs. Though only two of the 29 allocation factors were used in this analysis, the electronic model allows the choice to use any of the 29 allocation factors that were used to allocate DNG costs. Page 3 shows a summary of the costs from pass-through Docket No. 19-057-04 that are allocated to each of the classes.

Q. Are both of these allocation factors available outside of the class cost-of-service study performed in a general rate case?

A. Yes. The data used for the Design Day factor is calculated annually as part of the Integrated Resource Plan process. The data for the firm sales factor can be easily queried from the Company's databases.

Q. Has DEU prepared a summary of the costs that are allocated to each class?

A. Yes. DEU Exhibit 4.17, page 3 summarizes how the costs are ultimately allocated to the different classes.

Q. Has the Company calculated new SNG rates for the different classes?

A. Yes. DEU Exhibit 4.17, page 4 summarizes the rates that were calculated using the costs from the Company's most recent pass-through application.

Q. Is Dominion Energy proposing that these rates be made effective at the same time as

the DNG rates proposed in this case?

A. No. In this Docket, the Company is simply requesting that this method of allocating SNG costs be approved. The rates calculated are based on costs that are already being collected in the pass through. These rates will be adjusted again in the Company's fall 2019 pass through, which will be done before this allocation method is approved. Therefore, the rates shown on page 4 are only for illustrative purposes. The Company would use the proposed allocation method in the first pass through application after this allocation method is approved.

Q. Why do some customers pay a different rate in the winter than in the summer?

A. Some of the SNG contracts are only used in the winter time when demand is higher. Following principles of cost causation, DEU wants to make sure the customers that are using the winter contracts the most are paying for it. Utilizing different rates for summer/winter use accomplishes this goal in the GS and FS classes. Page 5 of DEU Exhibit 4.17 shows the calculation of the summer/winter differential for the GS class. For each SNG contract in column A, the Company determined if the contract was a year-round contract or a winter-only contract. For the contracts that are winter-only, the total cost of the contract was allocated to the winter months (column C). If the contract is used year-round, the costs were allocated to the summer or winter based on the total throughput of the class. Lines 29 and 30 of page 5 show that for the GS class, about 28% of the contract costs are used in the summer months, with the remaining 72% being used in the winter. The rates on page 4 are designed to collect the revenue according to these ratios. Page 6 shows the same calculation, but for the FS class.

Q. Does the Company need to account for seasonal use in the NGV and transportation classes?

A. In the NGV class, customers are using gas equally all year, so the rate is designed to collect revenue equally throughout the year. Transportation customers in the TS and TBF classes are not allocated upstream transportation costs since they buy transportation services from their marketer. The only costs that are allocated to these classes are the two peak hour contracts. Since these contracts are only associated with the amount of

firm volume used by transportation customers, the most logical way to design the rate is through a demand charge. Demand charges are paid based on the customers firm demand contract.

Q. How do the new SNG rates compare to the existing SNG rates?

A. Lines 13 – 16 of page 4 show the existing base SNG rates that were implemented in the most recent pass-through application. These rates can be compared to the proposed rates on lines 7 – 11. Note however, that the proposed rates were calculated using the new SNG and Commodity classifications that were approved in Docket 19-057-T01. Page 7 summarizes the current SNG rates and the proposed SNG rates using the current SNG definition and the approved SNG definition from Docket 19-057-T01.

Q. Is the Company changing the way costs are allocated to the Interruptible Sales ("IS") class of customers?

A. No. IS customers are not allocated any firm transportation costs, which are the only costs being allocated in the model. The IS customers only pay for the cost of one interruptible transportation contract that the Company has with Dominion Energy Questar Pipeline. This rate has been, and will continue to be calculated in the pass through applications.

A. Allocation of Peak Hour Costs to Transportation Customers

Q. Is the Company proposing to allocate any SNG costs to transportation customers?

A. Yes. On May 1, 2017, the Company filed its pass through application and included the costs of two new peak hour contracts. These contracts were a new SNG cost in the pass through. In conjunction with the pass-through application, the Company opened Docket No. 17-057-09 to charge a portion of the costs of the peak hour contracts to transportation customers.

Q. What was the result of Docket No. 17-057-09?

A. The Commission denied the Company's application and noted that the Company's Tariff provides that "supplier non-gas cost class allocation levels will be established in general rate cases."

Q. Did the Commission determine the prudency of the peak hour contracts in Docket No. 17-057-09?

A. Yes. When the Company initially filed its application, the intent was solely to allocate some of the cost of the contracts to transportation customers. Since the costs of the contract were included in the pass-through application, the Company thought the prudency of the contracts should be reviewed there. The Division, the Office, and other intervening parties initiated the question of prudency, but these issues were ultimately determined in the next pass through application (Docket No. 17-057-20). In its Order dated July 13, 2018, the Commission determined that the Company "acted reasonably in most aspects of its planning, modeling, and executing the Peak Hour Contracts." The Commission also determined that the Company used an unreasonable wind speed in determining the peak hour needs and, as a result, disallowed a small amount of the costs. The Company refunded the disallowed costs to customers in its pass-through applications and reduced the wind speeds used in the calculation that determines the level of future peak hour contracts. Having implemented these changes, the question of prudency is not an issue at this time.

Q. How did the Company allocate peak-hour costs to customers?

A. The two peak-hour contracts are allocated using the peak day factor described earlier. This allocator determines each class's portion of the design-day costs and is also appropriate to allocate the peak-hour contract costs.

Q. How is the Company proposing to collect these costs from transportation customers?

A. It is proposing to collect this charge through a monthly demand charge of $0.11858 per Dth of contracted monthly firm demand. The costs allocated to the transportation customers are shown on Pg 4, line 1, column D. These costs are divided by the firm demand volumes in column D, line 6 to calculate an annual demand rate (column D, line 10). This annual demand charge is then divided by 12 to determine the monthly demand rate in column D, line 11.

VII. ELECTRONIC MODEL

Q. Have you included a working Excel model for the cost-of-service and rate design?

A. Yes. Included in this filing as DEU Exhibit 4.18 Utah Rate Case Model, is a working Excel model that includes all revenue requirement, cost of service, and rate design calculations. The cost of service calculations are performed in the yellow tabs and the rate design calculations are in the green tabs. All other tabs are used for calculating the revenue requirement.

Q. Please summarize your testimony.

A. The Company is seeking to achieve significant progress toward having rates that are consistent with the principle of cost-causation with the proposed cost-of-service and rate design proposals. The Company realizes that subsidies have existed in the past, and even proposes that the TBF rate continue to be subsidized. But those subsidies have been policy-driven; they were based on an economic cost-benefit analysis. The Company proposes to eliminate current inter-class subsidies because those subsidies are simply the remnant of antiquated rates that are allowing marketing agents and small transportation customers to profit through arbitrage. This loophole needs to be closed now, not later. If it is not remedied now, the subsidy will continue to grow and changes will be even more difficult in future cases.

The Company is also proposing changes to the method used to allocate SNG costs to the different customer classes. These costs have been under increasing scrutiny in recent dockets. The proposed method to allocate these costs is consistent with cost causation principles.

The Company's proposals in this case are just, reasonable, and in the public interest, and should be approved by the Commission.

Q. Does this conclude your testimony?

A. Yes.

State of Utah)

) ss.

County of Salt Lake)

I, Austin C. Summers, 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.

Austin C. Summers

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

Notary Public

GINGER JOHNSON
Notary Public State of Utah
My Commission Expires on:
August 4, 2019
Comm. Number: 684539