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. 22-057-03

PHASE II DIRECT TESTIMONY OF BRADLEY G. MULLINS

ON BEHALF OF

NUCOR STEEL-UTAH, A DIVISION OF NUCOR CORPORATION

September 15, 2022

Nucor Exhibit 1.0

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PHASE II DIRECT TESTIMONY OF BRADLEY G. MULLINS

EXHIBIT LIST

I. INTRODUCTION AND SUMMARY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Bradley G. Mullins, and my business address is Lummintie 13, Oulu, Finland FI-90640.

Q. PLEASE STATE YOUR OCCUPATION AND ON WHOSE BEHALF YOU ARE TESTIFYING.

A. I am an independent energy and utilities consultant representing energy consumers before state regulatory commissions, primarily in the Western United States. I am appearing in this matter on behalf of Nucor Steel-Utah, a Division of Nucor Corporation ("Nucor"), a transportation service customer of Dominion Energy Utah ("Dominion").

Q. PLEASE SUMMARIZE YOUR EDUCATION AND WORK EXPERIENCE.

A. I have a Master of Accounting degree from the University of Utah. After obtaining my master's degree, I worked at Deloitte Tax in San Jose, California. I later worked at PacifiCorp performing power cost modeling. I currently provide independent consulting services to utility customers on matters such as revenue requirement, power cost forecasting, and rate spread and design. I have sponsored expert testimony in regulatory jurisdictions around the United States, including before the Public Service Commission of Utah. A list of cases where I have submitted testimony can be found in **Nucor Exhibit 1.1**.

Q. WHAT IS THE PURPOSE OF YOUR PHASE II DIRECT TESTIMONY?

A. I evaluate the class cost of service model, rate spread, and rate design Dominion has proposed in the Direct Testimony of witness Austin Summers, including the proposal to

split the Transportation Service ("TS") rate class into three separate rate schedules.[1] I present and discuss alternative class cost of service study assumptions, the results of which are attached as **Nucor Exhibit 1.2**. Finally, I discuss and analyze alternative rate design approaches for the TS rate class, which are attached as **Nucor Exhibit 1.3**.

Q. PLEASE SUMMARIZE YOUR PRINCIPAL RECOMMENDATIONS AND CONCLUSIONS.

A. If approved, Dominion's proposals related to the TS rate class, including its proposal split the TS rate class into three schedules, would result in a subset of Dominion's largest customers receiving extraordinary rates increases. Dominion has proposed staggering rate increases for large industry that is otherwise being subject to increased gas commodity cost and increased cost for nearly every other input to their production processes. A cost of service study can be constructed in many different ways and is not the only factor to consider when evaluating the reasonableness of how revenues are spread to individual rate classes. Other factors, such as consistency, gradualism, fairness, economy, and practicality, are also necessary to consider when evaluating the spread of revenue requirement to rate classes. To avoid such severe rate impacts, I request the Commission adopt a rate spread and rate design for the TS class that will have a more balanced impact on all customers. Specifically, I recommend the Commission:

1) Decline to modify the long-standing composition of the TS rate schedule;

2) Adopt an allocation for core distribution mains in the class cost of service study using a 100% design-day demand ;

[1] *See* DEU Exhibit 4.0, Direct Testimony of Austin C. Summers for Dominion Energy Utah at 18-26 (May 2, 2022) ("DEU Exhibit 4.0").

3) Allocate deprecation expenses for individual FERC Accounts in a manner consistent with the allocation of the underlying plant accounts; and

4) Adopt a rate design for the TS rate class that recovers the TS revenue requirement sufficiency or deficiency through an equal percentage change to the volumetric blocks and the demand charge, with no change to the administrative and basic service fees.

II. BACKGROUND

Q. WHAT REVENUE REQUIREMENT DEFICIENCY HAS DOMINION HAS PROPOSED TO RECOVER IN THIS PROCEEDING?

A. In its revenue requirement and class cost of service models, Dominion has proposed to increase its rates by $70,511,689 or an increase of approximately 16.3%.[2] In its rate design model, however, Dominion has designed rates to produce an $87,884,317 revenue increase, or an increase of approximately 21.1%.[3] I was unable to verify the source of the variance between these two models, although the difference may be driven by the treatment of the conservation energy tariff ("CET") revenues and the treatment of customers migrating to the Transportation Bypass Firm ("TBF") schedule. While Nucor is not advocating for a revenue requirement adjustment for these differences, it is necessary for the rate design to tie to the ultimate revenue requirement change calculated in Phase I of this docket.

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2 *See, e.g.*, DEU Exhibit 4.20, Workpaper "323863DEUExh4.20ElctrncMdl5-2-2022," Tab "Report." Percentage calculated as $70,511,689, divided by jurisdictional sales of $433,402,504.

3 *Id.* at Tab "Rate Design," Excel Row "292." Represents the difference between $503,914,193 in proposed jurisdictional sales and $416,029,876 in current jurisdictional sales.

Q. WHAT RATE SPREAD HAS DOMINION PROPOSED?

A. **Table 1**, below, details the revenue spread based on both the cost of service study model and the rate design model.[4] **Table 1** also separately details the impact of splitting the TS rate class into three classes.

Table 1
Dominion Revenue Deficiency By Rate Schedule
Revenue Requirement vs. Rate Design

		Rev. Req. / Cost of Service				Rate Design Model			
		No TS Split		TS Split		No TS Split		TS Split	
		$	%	$	%	$	%	$	%
1	General Sales	57,909,354	15.1%	57,909,354	15.2%	75,132,513	20.6%	75,132,513	20.6%
2	N.G. Vehicles	549,647	21.1%	549,647	21.1%	652,598	26.1%	652,598	26.1%
3	Firm Sales	1,173,453	41.6%	1,173,453	42.0%	1,245,154	45.7%	1,245,154	45.7%
4	Interr. Sales	(14,449)	-5.5%	(14,449)	-5.5%	(9,570)	-3.7%	(9,570)	-3.7%
5	Transp. Bypass	1,765,581	37.2%	1,765,581	38.1%	8,722	0.1%	8,722	0.1%
6	Lake Side	Not Studied				-	0.0%	-	0.0%
7	Munin. Transp.	6,664	23.1%	6,594	22.9%	2,711	9.4%	2,711	9.4%
8	Transportation	9,121,438	23.1%			10,920,754	29.3%		0.0%
9	TS Small			(1,542,423)	-10.9%			(1,446,643)	-10.3%
10	TS Medium			3,160,206	22.9%			4,267,938	33.6%
11	TS Large			7,503,726	67.9%			8,030,894	76.4%
12	Total	70,511,689	16.3%	70,511,689	16.3%	87,952,882	21.1%	87,884,317	20.7%

As can be seen from Table 1, there are material differences between the allocation of the revenue deficiency in the cost of service model versus the rate design model. For example, the rate design model allocates a 29.3% rate increase to transportation customers, while the cost of service model only allocates a 23.1% rate increase. Similarly, the rate design model would result in virtually no rate increase being allocated to transportation bypass customers, whereas the cost of service study results in a 37.2% rate increase.

[4] *See generally id.*

The rate increase Dominion has proposed in this case is already large, and using either modeling approach, Dominion also has recommended that TS customers, overall, receive an above average system rate increase. Notwithstanding, under the TS Split alternative, Dominion proposes that TSL customers receive an even larger rate increase of 3.7 to 4.1 times the average, depending on the model used. As I discuss below, however, this approach is not consistent with my cost of service study recommendation and will have exceptional impacts on the 29 customers that happen to be classified into the proposed TSL rate class. Such impacts qualify as "rate shock" and therefore should appropriately be mitigated.

Q. PLEASE PROVIDE AN OVERVIEW OF THE RESOLUTION OF COST OF SERVICE ISSUES IN DOCKET NO. 19-057-02.

A. Dominion's cost of service study was an issue addressed in Docket No. 19-057-02, Dominion's 2019 General Rate Case ("GRC"). Among other things, parties raised issues regarding the composition of and cost of service calculations for the TS rate class. Given the above average rate increase attributed to the TS rate class in that docket, the Commission, in its February 25, 2020 Report and Order, ordered a gradual, phased-in rate implementation for the TS class and required parties to engage in a collaborative working group to address and resolve these rate design issues prior to Dominion next GRC, which is this docket. Dominion convened the working group in Docket No. 20-057-11 and held several working group meetings in 2020 and 2021.

Q. WHAT WAS THE RESULT OF THE WORKING GROUP DISCUSSIONS?

A. While several workshops were held discussing various topics, no consensus was reached with respect to cost of service or rate design issues.[5]

Q. WHAT HAS DOMINION PROPOSED IN THIS DOCKET?

A. The cost of service study and rate spread Dominion has proposed was identified in the Direct Testimony of witness Austin Sommers. Among other things, Dominion has proposed to split the transportation rate class into three separate rate classes, including 1) a Transportation Service Small ("TSS") class with throughput less than 25,000 dth/year; 2) a Transportation Service Medium ("TSM") class with throughput between 25,000 dth/year and 250,000 dth/year; and 3) a Transportation Service Large ("TSL") class with throughput exceeding 250,000 dth/year.[6] If the TS class is not split, however, Dominion still has proposed a rate design that will produce exceptional rate impacts for large customers.

III. TRANSPORTATION SERVICE RATE CLASS

Q. HOW DO YOU RECOMMEND THE COMMISSION EVALUATE THE TS RATE CLASS IN THIS PROCEEDING?

A. I recommend the Commission decline to split the transportation rate class in this docket and adopt a rate spread that produces more uniform rate impacts across customers in the TS rate class. Splitting the TS rate class in the manner Dominion proposed results in rate shock for certain customers, particularly those in the proposed TSL rate class. Other than their size, the load characteristics of the 29 large customers in the proposed TSL rate

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5 Docket No. 20-057-11, *Cost of Service and Rate Design Issues for Dominion Energy Utah*, Summary Report of the Cost-of-Service and Rate Design Task Force at 3-4 (June 29, 2021).

6 DEU Exhibit 4.0 at 5:105-114.

class are not materially different than those of any other customer in the proposed TSM or TSS rate classes. The cost of service study results that I have prepared in **Nucor Exhibit 1.2** do not support a finding that there is a significant intra-class inequity in the TS rate class, and to the extent that the Commission desires to address perceived intra-class inequities in the TS rate class, splitting the TS rate class is not necessary. Prior to undertaking the effort to split the TS rate class, it is most appropriate to undertake steps to modify the rate design. Splitting the rate class produces many unintended consequences and results in severe rate impacts for a small subset of customers and, therefore, is not desirable in this case. In contrast, taking steps to modify rate design can still achieve the same objectives as splitting the rate class, while producing more balanced impacts on individual customers. Where possible, maintaining a consistent and stable set of rate classes over-time is generally advantageous.

Q. WHAT JUSTIFICATION HAS DOMINION PROVIDED FOR SPLITTING THE TS RATE CLASS?

A. Dominion cited a study it performed in the 2019 GRC, which Dominion believes shows that small customers were subsidizing large customers in the TS rate class.[7] Dominion also identified the results of the study it performed in this proceeding where it has calculated a larger rate increase for medium and large transportation customers than small commercial customers.

[7] DEU Exhibit 4.0 at 19:500-509.

Q. DO YOU AGREE WITH DOMINION'S JUSTIFICATION?

A. No. The cost of service study assumptions that I discuss below do not support a finding that small customers are subsidizing large customers in the TS rate class. Rather, it is the medium-sized customers receiving a modest subsidy in my cost of service study.

Q. WILL SPLITTING THE TRANSPORTATION CLASS ELIMINATE INTRA-CLASS SUBSIDIES?

A. No. There are winners and losers in every cost of service method and rate design approach. Splitting the rate class might address some perceived inequities, but in doing so, new inequities would be created. It might be possible, for example, to perform a further cost study and develop separate rates for even smaller subsets of customers in order to eliminate all perceived subsidies. In doing so, one might discover that small customers in the proposed TSM class are subsidizing large customers in the TSM class, warranting a further split into a TSM small and a TSM large rate class. This sort of analysis could be performed iteratively, potentially down to each individual customer, increasingly splitting the classes until every perceived inequity is resolved. This exercise, however, would be contrary to the concerns of practicality and fairness.

Q. HOW DID DOMINION DETERMINE THE THRESHOLD FOR THE THREE TS RATE CLASSES?

A. Dominion has established thresholds of less than 25,000 dth/year for the proposed TSS rate class, less than 250,000 dth/year for the proposed TSM rate class, and greater than 250,000 dth/year for the proposed TSL rate class. Dominion cites several factors it considered in setting these thresholds, including evaluation of the similarity of customers

in a rate class, the size of the rate class, potential borderline customers, and administrative burden.[8]

Q. HOW MANY CUSTOMERS ARE IN THE PROPOSED TS RATE CLASSES?

A. In the proposed TSL rate class there are only 29 customers. In the proposed TSM rate class there are 226 customers. In the proposed TSS rate class there are 891 customers. This difference in the number of customers is a problem with Dominion's proposal. Allocating costs based on the throughput of just 29 customers has the potential to result in the costs being influenced by one or two major customers in that class. If, for example, a large customer decides to install a new facility or close an old facility, and materially changes its throughput, such decisions could have a material impact on the cost of service rates paid by all other customers in the class.

Q. HOW WILL DOMINION ADMINISTER THESE THRESHOLDS?

A. The process for administering the transition of customers from one rate schedule to another will result in increased administrative burden and potential controversy. Customers will have an incentive to remain on the proposed TSS rate schedule, even though they may qualify for the proposed TSM rate class.

Q. WHAT DO YOU RECOMMEND?

A. I recommend against splitting the TS rate class in this docket. I also recommend against the dramatic rate design changes that Dominion has proposed for the TS rate class, assuming it is not split. Rather, considering the cost of service study assumptions discussed below, I recommend adopting a more balanced rate design for the TS rate class.

[8] DEU Exhibit 4.0 at 21:542-22:555

IV. COST OF SERVICE STUDY

Q. WHAT GENERAL PRINCIPLES DO YOU RECOMMEND THE COMMISSION APPLY WHEN EVALUATING CLASS COST OF SERVICE?

A. There are many principles that the Commission may consider when evaluating the reasonableness of a cost of service study and the associated rate spread. Foremost, however, it is important to recognize that no cost of service study is perfect. While it is possible to establish a precise revenue requirement using known and measurable accounting data, allocating that revenue requirement to individual customer classes relies on high-level economic assumptions, many of which might be viewed differently by different experts. Recognizing this imprecision, I recommend cost allocation follow the principle of cost causation. Under the principle of cost causation, it is the consumer that causes a cost to exist that pays for the costs. Determining which consumers caused a particular cost is a difficult and imprecise exercise. To allocate costs, it is therefore necessary to make high-level assumptions that costs of a particular cost category are caused by consumers in proportion to some metric. For instance, Dominion's study assumes that the cost of core distribution mains is caused by consumers in proportion to a metric calculated as 60% design day demand and 40% throughput. This sort of approach, however, is judgment informed and does not necessarily correspond to the cost that any particular customer might cause from using the core distribution system.

Further, other factors are also equally important to consider the reasonableness of a revenue spread to individual customer classes. It would be inappropriate to rely solely on an allocation method when doing so produces unreasonable results. Accordingly, factors such as consistency, gradualism, and practicality all must be considered when evaluating the rate spread calculated in a cost of service model. For example, where a

cost allocation method produces rate impacts that would otherwise result in rate shock for certain customers, mitigating the rate increase for that customer class is appropriate.

Q. WHAT CHANGES DO YOU RECOMMEND TO DOMINION'S COST OF SERVICE STUDY?

A. I recommend the Commission make two changes when evaluating the cost of service study Dominion has proposed. First, I recommend that the core distribution main costs be allocated using 100% design day demand. Second, I recommend that depreciation expenses be allocated based on the specific depreciation expenses accrued for each FERC account, rather than allocating the expense in proportion to gross plant. Cost of service study results supporting these recommendations may be found in **Nucor Exhibit 1.2.**

a. <u>Account 376 – Feeder Mains</u>

Q. WHAT METHOD DOES DOMINION USE TO ALLOCATE CORE DISTRIBUTION MAINS?

A. Dominion allocates core distribution mains, which it refers to as feeder mains, using a variation of the peak and average method. Specifically, Dominion allocates 60% of the cost of core distribution mains using design day demand and 40% using throughput. Core distribution mains represents one of the largest plant accounts on Dominion's system. Since these plant values are a driver in the allocation of other costs, such as O&M and depreciation expenses, the allocation method used for core distribution mains has a material impact on the overall cost of service for each rate class.

Q. WHAT IS THE BASIS FOR THE 60%/40% SPLIT DOMINION PROPOSED?

A. In the context of the peak and average allocation factor, the "peak," design day throughput is generally referred to as the demand component, whereas the average is sometimes referred to as the energy component. It is common for the split in a peak and

average method to be derived by the design-day load factor, although often these weightings are judgement informed. Thus, the firm system load factor, representing the relationship between demand and energy on the utility's system, sometimes is used as a guide for determining a reasonable demand energy split in a peak and average method.

Q. WHAT IS DOMINION'S DESIGN DAY LOAD FACTOR?

A. In Dominion's cost of service model, Utah jurisdictional design day throughput was 1,459,679 dth, whereas average daily throughput was 473,714 dth.[9] Thus, if such an approach were used in this docket, the result would be a 68%/32% split.

Q. DO YOU AGREE WITH USING A PEAK AND AVERAGE METHOD TO ALLOCATE MAINS?

A. No. I recommend that all core distribution investments be allocated on the basis of demand. While I understand the peak and average method has been used in the past, allocating 40% of core distribution mains on the basis of throughput is not consistent with cost causation. Consumers cause costs on the core gas distribution system by having the capacity available to deliver sufficient natural gas to satisfy their individual requirements. Consumers do not cause more costs on the core distribution system in proportion to the volumes delivered. A consumer that reserves 100 dth/day of firm capacity causes the same amount of costs, whether it ultimately consumes 100 dth/day or zero dth/day, on average. If distribution capacity has been built to serve a particular customer, it is not equitable to provide the consumer a discount if it uses that capacity less frequently. While a customer with lower throughput will pay reduced commodity costs, there is no relationship between the commodity costs of natural gas and the cost of the gas

[9] DEU Exh. 4.20, Tab "COS Input.,"

distribution system which warrants splitting the allocation of mains between demand and energy.

Another principal problem with a peak and average approach is that the peak used in the calculation already encompasses the average firm throughput. This results in a double weighting of throughput in the allocation factor. The peak day throughput, by definition, already encompasses the average daily throughput.

Q. IS THE CORE DISTRIBUTION SYSTEM BUILT FOR AVERAGE GAS FLOWS?

A. No. Accordingly, using a peak and average method is not reasonable approach for allocating core distribution mains. For a gas distribution system, there is no trade-off between demand and energy. The cost of the core distribution system does not decline if consumers consume less gas, while still requiring the same level of peak or design day capacity. The system is built to meet all firm gas requirements under design day conditions, not based on averages. As new additions are made to the distribution system, for example, those additions do not enhance the ability of ratepayers to consume more than the design-day requirements of the system. Therefore, it is the design requirements that are the primary driver of costs for the core distribution system, not throughput. This is why most major inter-state pipelines, such as Northwest Pipeline, establish cost responsibility solely based on firm demand charges, rather than volumetric rates.

Q. WHAT DO YOU RECOMMEND?

A. I recommend allocating core distribution mains using 100% design day demand. In **Nucor Exhibit 1.2**, I have prepared an alternative cost of service study analysis using 100% design day demand to allocate the cost of core distribution mains. The result of that study is detailed in **Table 2** below.

Table 2
Cost of Service Impact of Design Day Allocator for Core Distribution Mains

	GS	FS	IS	TS	TBF	NGV
100% Design Day Demand Rate Increase	18.5%	27.7%	-53.7%	-7.4%	25.2%	18.0%

Thus, as can be seen in **Table 2**, the use of design day demand indicates that it is necessary to reduce TS customer rates.

b. Distribution Depreciation Expenses

Q. HOW HAS DOMINION ALLOCATED DISTRIBUTION DEPRECIATION EXPENSES?

A. Distribution deprecation expenses are allocated in proportion to allocated gross distribution plant.

Q. DO YOU AGREE WITH THAT APPROACH?

A. No. Each distribution plant account has a different depreciation rate and a different allocation. Long-lived plant accounts such as Account 576 – Mains tend to have lower depreciation rates, whereas other accounts have shorter depreciation rates. Further, each of those accounts have discrete allocation factors. Balances in Account 364 - LNG Plant, for example, are allocated only to sales customers. With Dominion's approach, however, the LNG depreciation expenses are allocated to all customers in proportion to allocated distribution plant balances.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that deprecation expenses be calculated for each FERC plant account and allocated using the same allocation factor that is used for underlying FERC account.

Q. WHAT IS THE IMPACT OF THIS RECOMMENDATION?

A. **Table 3** below details the impact on the total rate increase by class of this recommendation in addition to using the 100% design day factor for core distribution mains detailed above.

Table 3
Impact of Fully Allocated Distribution Expenses

	GS	FS	IS	TS	TBF	NGV
100% Design Day Demand + Allocated Distr. Exp.						
Rate Increase	18.6%	27.1%	-52.4%	-7.6%	23.9%	17.8%

V. TRANSPORTATION SERVICE RATE DESIGN

Q. HOW DO YOU RECOMMEND THE COMMISSION ADDRESS TRANSPORTATION SERVICE RATE DESIGN?

A. As noted above, I recommend that the Commission decline to split the TS rate class, as the split is not supported by my cost of service study recommendation. As a matter of fairness, I recommend that the Commission avoid abrupt changes that will result in excessive rate impacts between customers in the TS rate class. The existing rate structure has been in place for many years and, as demonstrated above, disturbing it in one single action could have severe consequences for certain customers. Rather, it is more reasonable to continue the existing rate structure, making gradual changes to rebalance the rate class over time, as necessary.

Q. DOES YOUR COST OF SERVICE STUDY SUPPORT A FINDING THAT SMALL TS CUSTOMERS ARE SUBSIDIZING LARGE TS CUSTOMERS?

A. No. As can be seen from Page 2 of **Exhibit Nucor 1.2**, the TS rate reduction using my cost of service assumptions was -12.49% for small transportation customers, -2.55% for medium-sized transportation customers, and -7.72% for large transportation customers.

Thus, to the extent that a subsidy does exist, it is being provided to the medium-sized transportation customers, not the large transportation customers. The differences between these amounts, however, are not significant enough to warrant dramatic changes to rate structure or rate design for the TS rate class. Further, even if the Commission were to disagree with the using design day as the allocator for core distribution mains in the overall cost of service study, one may still consider the effects of using the design day allocator when evaluating cost responsibility within the TS rate class and determining whether an unreasonable subsidy exists.

Q. WHAT SPECIFICALLY DO YOU RECOMMEND?

A. I recommend the Commission adopt the TS rate design presented in **Nucor Exhibit 1.3**. Specifically, I recommend the Commission adopt a balanced rate spread for the TS rate class that recovers the allocated revenue requirement sufficiency or deficiency through an equal percentage increase to the volumetric charges and demand charges, with Dominion's proposed reductions to the administrative fees. This will result in all transportation customers receiving a similar rate reduction or rate increase, with small customers receiving a greater benefit from the declining administrative charges.

Q. DOES THIS CONCLUDE YOUR PHASE II DIRECT TESTIMONY?

A. Yes.