BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

Phase II Surrebuttal Testimony of Kevin C. Higgins

on behalf of

UAE

Docket No. 22-057-03

November 3, 2022

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EXHIBITS

SURREBUTTAL TESTIMONY OF KEVIN C. HIGGINS

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Kevin C. Higgins. My business address is 111 East Broadway, Suite 1200, Salt Lake City, Utah, 84111.

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

A. I am a Principal in the firm of Energy Strategies, LLC. Energy Strategies is a private consulting firm specializing in economic and policy analysis applicable to energy production, transportation, and consumption.

Q. Are you the same Kevin C. Higgins who prefiled Phase I direct, rebuttal and surrebuttal testimony and Phase II direct and rebuttal testimony on behalf of the Utah Association of Energy Users Intervention Group ("UAE") in this proceeding?

A. Yes, I am.

II. OVERVIEW AND CONCLUSIONS

Q. What is the purpose of your Phase II surrebuttal testimony in this proceeding?

A. My testimony responds to the Phase II rebuttal testimonies of Dominion Energy Utah ("DEU") witness Mr. Austin C. Summers, Division of Public Utilities ("Division") witness Dr. Abdinasir M. Abdulle, Office of Consumer Services

("Office") witness Mr. James W. Daniel, Nucor Steel-Utah ("Nucor") witness Mr. Bradley G. Mullins, and American Natural Gas Council ("ANGC") witness Mr. Timothy B. Oliver.

Q. Please summarize your conclusions and recommendations.

A. My testimony offers the following recommendations:

1) I continue to recommend that Design-Day usage be used to allocate demand-related costs. I agree with the rebuttal testimony of Mr. Summers that feeder line mains, compressor stations, and measuring/regulation stations were designed and installed to meet customer demand on a Design-Day.[1] Dr. Abdulle's and Mr. Daniel's proposals to use actual peak-day usage rather than Design-Day usage to allocate demand-related costs should be rejected.

2) I continue to recommend that Dr. Abdulle's and Mr. Daniel's proposals to allocate peak demand costs to interruptible load be rejected because interruptible loads do not contribute to DEU's Design-Day demand costs and would be curtailed on a Design-Day.

3) I continue to recommend using a 67.5% Design-Day / 32.5% Throughput weighting for Allocation Factor 230, with the throughput weighting based on the system load factor calculated using the Design-Day. I agree with Mr. Summers' rebuttal testimony that my proposal carries the most analytical weight of all the alternatives offered by other parties.[2] Furthermore, I believe my proposal is more appropriate than DEU's 60/40 weighting because my load factor weighting is

[1] Rebuttal Testimony of Austin C. Summers, lines 52-58.
[2] Rebuttal Testimony of Austin C. Summers, lines 157-158.

based on the proper application of the Peak and Average method as described in the NARUC Manual.

4) I continue to recommend a 67.5% Distribution Design-Day / 32.5% Distribution Throughput allocation for large-diameter intermediate high pressure ("IHP") mains, with both of these components representing the load delivered through the large-diameter IHP system. Mr. Summers misunderstands my proposal and incorrectly states that I recommend using the same allocation method for large-diameter IHP mains and feeder lines.[3] On the contrary, my recommended allocation method for large-diameter IHP mains appropriately excludes load directly connected to the feeder line system or Upstream Pipeline, as does DEU's Distribution Throughput allocation.

5) Mr. Summers' rebuttal testimony accepts my recommended corrections to the Magna Liquified Natural Gas ("LNG") rate base in concept but provides a more precise reclassification of LNG plant by FERC account.[4] I incorporated the FERC account information provided by Mr. Summers into my surrebuttal cost-of-service study.

6) In his rebuttal testimony, Mr. Summers responds to a proposal by Nucor-Steel Utah witness Mr. Mullins to allocate distribution depreciation expense based on the underlying asset allocation. Mr. Summers acknowledges that allocating depreciation expense in the same manner as the underlying assets could be justified but argues that DEU's gross plant allocation factor is reasonable and

[3] Rebuttal Testimony of Austin C. Summers, lines 193-205.
[4] Rebuttal Testimony of Austin C. Summers, lines 290-332.

does not need to be changed.[5] I believe that Mr. Mullins' proposal is justified and that allocating distribution depreciation expense consistent with the underlying plant would better represent cost causation than DEU's method. Therefore, my surrebuttal cost-of-service study reflects an allocation of distribution depreciation expense based on the specific allocation of the underlying plant.

7) Mr. Oliver's criticism of my comments regarding TS rate design is misplaced. My comments were made in the interest of rational rate design rather than to advantage one rate class over another, as Mr. Oliver implies.

8) I provide a summary of the class cost-of-service study results using my recommended allocation methods as updated in this Phase II surrebuttal testimony, at the overall revenue requirement I recommended in my Phase I rebuttal testimony.[6] I recommend that these results be used to guide the revenue allocation to classes at the overall revenue requirement that the Commission approves in this case, prior to taking rate mitigation into account.

9) The Commission should consider implementing a rate mitigation plan that would temper the dramatic impacts that would otherwise be experienced by certain classes. The need for rate mitigation would be even more critical if certain cost allocation proposals made by Dr. Abdulle or Mr. Daniel are adopted.

[5] Rebuttal Testimony of Austin C. Summers, lines 283-288.
[6] My recommended revenue requirement in my Phase I surrebuttal testimony was unchanged from my Phase I rebuttal testimony.

III. RESPONSES TO COST ALLOCATION ISSUES

Design-Day Versus Actual Peak-Day Factor

Q. Do you support DEU's use of the Design-Day factor to allocate demand-related costs?

A. Yes, I agree with the rebuttal testimony of Mr. Summers that feeder line mains, compressor stations, and measuring/regulation stations were designed and installed to meet customer demand on a Design-Day.[7] The Design-Day is therefore the most reasonable basis on which to allocate the demand-related costs of these facilities.

Q. Do Dr. Abdulle and Mr. Daniel continue to advocate that demand-related costs be allocated using actual peak-day usage rather than the Design-Day in their rebuttal testimonies?

A. Yes. Dr. Abdulle and Mr. Daniel oppose DEU's use of the Design-Day to allocate peak demand-related costs. Dr. Abdulle recommends using a 3-year average of the actual peak-day demands,[8] whereas Mr. Daniel recommends using the test year actual peak-day demand.[9]

[7] Rebuttal Testimony of Austin C. Summers, lines 52-58.
[8] Rebuttal Testimony of Abdinasir M. Abdulle, lines 110-126.
[9] Rebuttal Testimony of James W. Daniel, lines 58-60.

Q. Do you continue to disagree with Dr. Abdulle's and Mr. Daniel's proposals to use actual peak-day usage rather than Design-Day usage to allocate peak-related costs?

A. Yes. The peak-related infrastructure put in place by DEU is designed to ensure that firm customers can continue to receive service on an extremely cold day. Since the Design-Day capacity is built to meet firm requirements under extreme conditions, it is entirely appropriate that the peak-related costs of the system be allocated in a manner that reflects the expected usage on the Design-Day.

As I explained in my Phase II rebuttal testimony, the actual peak-day demands utilized by Dr. Abdulle and Mr. Daniel are 30-32% less than the Design-Day demand. This additional capacity comes at a cost. DEU incurs these additional costs to ensure that DEU's system can continue to provide much-needed natural gas service to firm sales customers on an extremely cold day. If those costs are prudently incurred, the customers who require that this additional capacity be available should pay for it, which means that the capacity costs should be allocated based on the Design-Day.[10]

Dr. Abdulle's and Mr. Daniel's proposals to use actual peak-day usage rather than Design-Day usage to allocate demand-related costs should be rejected by the Commission because their approaches do not properly allocate cost responsibility for DEU's system as designed.

[10] Phase II Rebuttal Testimony of Kevin C. Higgins, lines 89-136.

Including Interruptible Load in the Peak-Day Factor

Q. Do you agree with DEU that interruptible volumes should not be included in the peak-day factor?

A. Yes. I agree with the rebuttal testimony of Mr. Summers that interruptible volumes should not be allocated demand-related costs.[11] I concur that interruptible volumes should not be assigned peak demand cost responsibility because interruptible load does not contribute to DEU's Design-Day demand costs and would be curtailed on a Design-Day. As Mr. Summers correctly points out, this is consistent with guidance in the NARUC Manual that interruptible customers should generally not be allocated coincident demand-related costs.[12]

Q. In addition to being inappropriate from a cost causation standpoint, would allocating demand-related costs to interruptible load present any rate design challenges?

A. Yes. Under the current Transportation Service ("TS") Rate Schedule (and the proposed TS Small, Medium, and Large rate schedules), demand-related costs are recovered through the Firm Demand Charge, which is applicable to contracted firm demand only. If increased demand-related costs are allocated to the TS class based on interruptible load, there would not be an efficient means of collecting those costs from the interruptible load under the current rate structure. Not only is it inappropriate to allocate demand-related costs to interruptible load from a cost-

[11] Rebuttal Testimony of Austin C. Summers, lines 341-355.
[12] See the description of the Coincident Demand Method in the Gas Distribution Rate Design Manual published by the National Association of Regulatory Utility Commissioners, p. 27, which was provided in UAE Exhibit COS 2.1 to my Phase II direct testimony.

causation standpoint, there is also no specific mechanism to collect these costs from TS interruptible load in the current tariff.

Design-Day / Throughput Weighting

Q. How did DEU respond to parties' positions regarding the appropriate Peak / Throughput weighting for Allocation Factor 230?

A. In Mr. Summers' rebuttal testimony, he addresses the Allocation Factor 230 weightings proposed by other parties, which I have summarized in Table KCH-1S, below. Mr. Summers concludes that of all the proposals by other parties, my recommended 67.5% Design-Day / 32.5% Throughput allocation carries the most analytical weight. Mr. Summers argues that my proposal is the most reasonable alternative to the Company's proposal, but he stops short of adopting my recommended weighting instead of the Company's 60/40 weighting. [13]

Table KCH-1S
Parties' Recommended Allocation Factor 230 Weightings

Nucor[14]	100% Design Day
Federal Executive Agencies[15]	100% Design Day
American Natural Gas Council[16]	68% Design Day / 32% Throughput
UAE	67.5% Design-Day / 32.5% Throughput
DEU[17]	60% Design Day / 40% Throughput
Division[18]	54% 3-Year Av. Actual Peak-Day / 46% Throughput
Office[19]	52% Actual Peak-Day / 48% Throughput

[13] Rebuttal Testimony of Austin C. Summers, lines 157-164.
[14] Rebuttal Testimony of Bradley G. Mullins, lines 13-15.
[15] Rebuttal Testimony of Brian C. Collins, page 4, lines 1-10.
[16] Rebuttal Testimony of Timothy B. Oliver, lines 464-467.
[17] Rebuttal Testimony of Austin C. Summers, lines 119-124.
[18] Rebuttal Testimony of Abdinasir M. Abdulle, lines 161-164.
[19] Rebuttal Testimony of James W. Daniel, lines 187-188.

Q. Do you continue to recommend a 67.5% Design-Day / 32.5% Throughput weighting for Allocation Factor 230?

A. Yes. My recommended 32.5% throughput weighting is based on DEU's system load factor calculated using the Design-Day. Measuring system load factor relative to the Design-Day is appropriate since the distribution system must be sized to meet the Design-Day capacity. The throughput allocation component should be no greater than the load factor, based on the average utilization of the system relative to the Design-Day. I therefore continue to recommend a 67.5% Design-Day / 32.5% Throughput weighting for Allocation Factor 230.

Large-Diameter IHP Mains Allocation

Q. By way of background, what is your recommended allocation method for large diameter IHP mains?

A. As I explained in my Phase II direct[20] and rebuttal[21] testimonies, I recommend using a 67.5% Distribution Design-Day / 32.5% Distribution Throughput allocation for large diameter IHP mains instead of DEU's 100% Distribution Throughput allocation. Importantly, my recommended method and DEU's current method are both based on the load delivered through the large-diameter IHP system and exclude load directly connected to the feeder line system or Upstream Pipeline.

[20] Phase I Direct Testimony of Kevin C. Higgins, lines 199-233.
[21] Phase II Rebuttal Testimony of Kevin C. Higgins lines 409-422.

Q. Did DEU respond to your proposal in rebuttal?

A. Yes. Mr. Summers responds to my proposal as well as that of Federal Executive Agencies' witness Mr. Brian C. Collins, who proposes to allocate large-diameter IHP mains based 100% on Design-Day. Mr. Summers contends that DEU's use of the 100% Distribution Throughput allocation is superior to the alternatives I and Mr. Collins propose.

However, Mr. Summers misunderstands an important aspect of my proposal. Mr. Summers claims that I am recommending the same 67.5% Design-Day / 32.5% Throughput allocation that I recommend for feeder lines.[22] This is incorrect. As I explained in my Phase II direct testimony, my recommended allocation method for large-diameter IHP mains is based on the load served through the IHP system,[23] rather than the entire load that is the basis of the feeder line allocation. This is appropriate because load that is directly served by the feeder line system or Upstream Pipeline should not be allocated costs of the large-diameter IHP system. Any allocation method approved by the Commission for large diameter IHP mains should exclude load that is directly served by the feeder line system or Upstream Pipeline.

The cost-of-service results that Mr. Summers presents related to my proposal should be disregarded because Mr. Summers misinterpreted my recommendation. The impact of my recommended large diameter IHP mains

[22] Rebuttal Testimony of Austin C. Summers, lines 195-196.
[23] Phase II Direct Testimony of Kevin C. Higgins, lines 209-223.

allocation is presented in UAE Exhibit COS 2.2, pages 3 and 4 to my Phase II direct testimony.

Q. Did any other parties respond to your large diameter IHP mains allocation method in rebuttal?

A. Yes. Nucor witness Mr. Mullins agrees that the large diameter IHP allocation should include the Design-Day, excluding high pressure service. However, Mr. Mullins recommends a 100% Design-Day allocation.[24]

Conversely, Mr. Daniel recommends that my proposed allocation be rejected because he claims that it is contrary to what DEU says the large diameter mains are designed for.[25]

Q. Do you continue to recommend that the large diameter IHP mains allocation incorporate a Distribution Design-Day component?

A. Yes. I continue to recommend using a 67.5% Distribution Design-Day / 32.5% Distribution Throughput allocation method for large diameter IHP mains. As DEU acknowledges in discovery, its entire distribution system is design to meet a Design-Day scenario.[26] My recommended method appropriately balances these Design-Day considerations with the Distribution Throughput component upon which DEU's current allocation method is based.

[24] Rebuttal Testimony of Bradley G. Mullins, lines 27-39.
[25] Rebuttal Testimony of James W. Daniel, lines 216-226.
[26] DEU response to UAE Data Request 3.01, included in UAE Exhibit COS 6.1.

Magna LNG Facility Rate Base

Q. Did DEU respond to your recommended corrections to the LNG facility gross plant, accumulated depreciation and accumulated deferred income taxes ("ADIT")?

A. Yes. Mr. Summers conceptually agrees with my recommended corrections but offers more precise information about the specific FERC accounts in which the gross plant balances were recorded.[27] I have incorporated this FERC account information as a refinement to my adjustment, which is included in my surrebuttal cost-of-service study. I note that I effectuated this adjustment by increasing the balance in Account 364 (LNG Plant) and decreasing the balances in the specified FERC accounts by the same amount. I consider this adjustment to be provisional for the purpose of this case, and recommend that DEU separately track its LNG-related plant in the proper FERC accounts going forward. I also recommend that the LNG-related accumulated depreciation and ADIT be tracked separately from the non-LNG-related balances to facilitate the proper allocation of these rate base components.

[27] Rebuttal Testimony of Austin C. Summers, lines 289-332.

Distribution Depreciation Expense Allocation

Q. How did DEU respond to Mr. Mullins' proposal to allocate distribution depreciation expense in the same manner as the underlying plant by FERC account?

A. Mr. Summers acknowledges that allocating depreciation expense in the same manner as the underlying assets could be justified but does not adopt Mr. Mullins' proposal.[28] Instead, Mr. Summers continues to utilize the gross plant allocator to allocate distribution depreciation expense.

Q. Do you believe that Mr. Mullins' proposal has merit?

A. Yes. Allocating distribution depreciation expense in a more precise manner consistent with the underlying plant better aligns with cost causation. I have incorporated this more granular allocation of distribution depreciation expense into my surrebuttal cost-of-service study.

IV. TS RATE DESIGN

Q. In your direct testimony you expressed concerns about the relationship between DEU's proposed TSS and TSM volumetric charges. ANGC witness Mr. Oliver is critical of your comments. Do you wish to respond?

A. Yes. In my direct testimony I noted that a customer transporting 2,000 Dth/month (a relatively large TSS customer or a relatively small TSM customer) would pay a far lower volumetric charge under DEU's proposed TSS rates than under DEU's

[28] Rebuttal Testimony of Austin C. Summers, 284-288.

proposed TSM rates for the same level of usage. Since the new TS classes would be differentiated by size, we should expect that some customers whose gas consumption is near the boundary of the usage level defining the rate class will end up migrating from one class to another based solely on variations in their usage. For this reason, we should prefer that the rate design provide a smooth transition from one class to the other. As I noted in my direct testimony, DEU's volumetric rate design falls far short of this objective. Although I noted this problem, I did not attempt to redesign DEU's TSS and TSM volumetric rates, as I believe that responsibility rests first and foremost with DEU.

Mr. Oliver takes issue with my commentary and speculates that my analysis "appears designed to block needed equity improvements for TSS customers by creating a specter of a flaw in the Company's rate design."[29] This is nothing more than gratuitous conjecture on Mr. Oliver's part. Rate design is important for ensuring rational rate relationships. Under DEU's proposed rate design, a TSS customer that experiences a very small increase in usage that causes it to migrate to the TSM class will experience a nearly 50% increase in its volumetric charge. I expect there will be some disgruntled customers when this occurs. I am not "creating a specter of a flaw." The potential impact speaks for itself. I am simply pointing it out.

[29] Rebuttal Testimony of Timothy B. Oliver, lines 656-658.

Q. Are there examples of rate design improvements for which UAE has advocated that have benefitted the TSS class?

A. Yes. UAE participated in the cost of service and rate design workshops that were ordered by the Commission at the conclusion of DEU's last general rate case. As part of that effort, UAE pointed out certain flaws in DEU's calculation of its TS demand charge. To DEU's credit, the Company adopted in this case the improvements recommended by UAE, which resulted in a decrease in the demand charge for all TS classes. This change produces a significant benefit to the customers populating the TSS class even if the TS class were not split up, because on the whole, a higher proportion of service to smaller customers is firm. UAE, which has members in all three proposed TS classes, did not recommend the improvement in the demand charge calculation in order to advantage one class over another, but rather in the interest of good rate design. My discussion of rate design issues in this case in consistent with UAE's long-term advocacy for good rate design practice.

V. COST-OF-SERVICE RESULTS SUMMARY AND REVENUE ALLOCATION CONSIDERATIONS

Q. Have you prepared an updated summary of the class cost-of-service results using the allocation methods you are recommending in this surrebuttal testimony, at the revenue requirement you recommended in your Phase I rebuttal testimony?[30]

A. Yes, these results are summarized in Table KCH-2S, below. I recommend that these results be used to guide the revenue allocation to classes at the overall revenue requirement that the Commission approves in this case, prior to taking rate mitigation into account, as I discuss below.

Table KCH-2S
Cost-of-Service Results with UAE Surrebuttal COS Recommendations
At UAE Phase I Rebuttal Revenue Requirement

		DNG Revenue Change to Achieve Equalized ROR		DNG Revenue Change Plus TBF Discount	
Class (a)	**Current DNG Revenue[31]** (b)	$ Increase/ (Decrease)[32] (c)	% Increase/ -Decrease (d)	$ Increase/ (Decrease) (e)	% Increase/ -Decrease (f)
GS	$383,506,941	$33,427,425	8.72%	$36,673,394	9.56%
FS	$2,822,045	$796,430	28.22%	$846,532	30.00%
IS	$264,568	($72,227)	-27.30%	($70,054)	-26.48%
TSS	$14,170,736	($2,654,939)	-18.74%	($2,471,111)	-17.44%
TSM	$12,873,715	$1,717,916	13.34%	$1,971,442	15.31%
TSL	$10,685,465	$4,634,240	43.37%	$4,955,425	46.38%
TBF	$6,473,467	$3,528,581	54.51%	($532,446)	-8.23%
NGV	$2,605,568	$397,973	15.27%	$402,219	15.44%
Total	$433,402,504	$41,775,400	9.64%	$41,775,400	9.64%

[30] My recommended revenue requirement in my Phase I surrebuttal testimony was unchanged from my Phase I rebuttal testimony.
[31] Reflects the correction to the TS and TBF classes' current revenues as I discussed in my Phase II direct testimony, lines 92-111, which has not been rebutted by any party, to the best of my knowledge.
[32] The overall increase differs slightly (-$45) from the increase recommended in my Phase I rebuttal testimony due to minor jurisdictional allocation impacts resulting from my LNG rate base correction.

Q. Do you believe that the Commission should consider applying rate mitigation in this case?

A. Yes, the Commission should consider implementing a rate mitigation plan that would temper the dramatic impacts that would otherwise be experienced by certain classes. In particular, the Commission should consider limiting the extent to which classes can experience rate decreases while other classes receive percentage increases that are substantially above the system average increase. The need for rate mitigation would be even more critical if certain costs allocation proposals of Dr. Abdulle or Mr. Daniel are adopted, which would exacerbate the significant impacts on the TSM and TSL classes. Given the magnitude of the potential class impacts, it may be necessary spread a portion of the revenue shortfall resulting from the rate mitigation to the GS class rather than confining the rate mitigation impact to the TS classes.

Q. Does this conclude your Phase II surrebuttal testimony?

A. Yes, it does.