

BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON  
UE 399

SMALL BUSINESS UTILITY ADVOCATES

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**Opening Testimony of William A. Steele**

**I. INTRODUCTION AND PURPOSE OF MY TESTIMONY**

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

A. My name is William A. Steele. My business address is 9554 Brentford Drive, Highlands Ranch, CO 80130.

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

A. I am an independent consultant specializing in the field of public utility regulation. I provide my consulting service through my firm, Bill Steele and Associates LLC.

**Q. Please state your qualifications to provide testimony in this proceeding.**

A. I have over 42 years of experience in the field of public utility regulation. A more detailed description of my qualifications is set forth in my Statement of Qualifications found at SBUA/I01 Steele.

Prior to becoming an independent utility consultant, I spent over 34 years as a rate/financial analyst at the Colorado Public Utilities Commission ("CPUC") in the capacity as a witness for trial staff and later in my career as an advisor to the Commissioners. I have also been an instructor for over 24 years at the Center of Public Utilities ("CPU") at New Mexico State University, teaching at its semi-annual Basics of Regulation training conference, as well as, serving on the CPU's Advisory Council. In addition to teaching at the CPU, I also teach a public utility regulatory training course for an organization called EUCI on Federal Energy Regulatory Commission ("FERC") Uniform System of Accounts ("USofA") accounting for electric and gas utilities. I also teach another course for EUCI on Alternative Ratemaking Mechanisms which covers the topics of riders and trackers in which cost recovery mechanisms operate separately

and change periodically, compared to base rates which are established in a general rate case proceeding. As an independent public utility regulatory consultant, I have provided in-house training services on public utility regulatory topics for some of the following organizations: the Colorado Public Utilities Commission, the Montana Public Service Commission, Otter Tail Power, Cobb MEC, the Colorado Office of Consumer Council and a consortium of executives from electric distribution utilities in Nigeria.

**Q. Have you previously testified before a public utility commission?**

A. Yes. I have testified before the Colorado Public Utilities Commission on numerous occasions, and I have also testified before the Nevada Public Utilities Commission, the California Public Utilities Commission, and the Oregon Public Utilities Commission ("OPUC").

**Q. On whose behalf are you testifying for in this case?**

A. I am testifying on behalf of the Small Business Utility Advocates (SBUA).

**Q. Would you please describe who is SBUA?**

A. SBUA is a nonprofit 501(c)(3) organization that represents, protects, and promotes the interests of small business utility customers. SBUA has over 200 members, of which many are Oregon-based entities. Many Oregon SBUA members are customers of PacifiCorp dba Pacific Power ("Company"). In Oregon the Company serves customers in pockets all over the state including large areas of rural Oregon and parts of the larger cities such as Portland and Salem. SBUA provides information and assistance to small businesses generally with regard to utility matters. SBUA represents the small business utility customers, also known as the small general service, small nonresidential, or small commercial, customers.

1 **Q. Have you provided testimony on behalf of SBUA in a prior PacifiCorp rate case?**

2 A. Yes. I served as SBUA's expert for the entirety of a recent OPUC electric utility rate case,  
3 UE 374 PacifiCorp dba Pacific Power Request for General Rate Revision, with my focus in that  
4 case being on the Schedule 23 rate class customers.

5 **Q. How many Schedule 23 customers served by the Company?**

6 A. According to Exhibit PAC/1110, Meredith/1 the Company forecasts are 84,329 customers in the  
7 Schedule 23 rate class. Schedule 23 also has a forecasted load of MWh 1,992,271. These  
8 numbers are based on a forecasted 12 month ending December 31, 2023. The rate case is based  
9 upon a historical base period of 12 months ending June 2021, with normalizing and *pro forma*  
10 adjustments to calculate a calendar year 2023 future test period with the exception of capital  
11 additions, which are based on calendar year-end 2022 balances. The Company's annual report to  
12 OPUC for December 31, 2021 shows small commercial monthly average of 70,706 and for  
13 December 31, 2020 shows small commercial monthly average of 69,586.

14 **Q. As far as the largest to the smallest number of customers in a rate class, where does**  
15 **Schedule 23 fall?**

16 A. Schedule 23 is the second to the largest rate class in the number of customers. Schedule 4  
17 Residential is the rate class with the largest number of customers. Therefore, based on the  
18 number of customers, Schedule 23 is an important rate class.

19 **Q. What is the purpose of your testimony in this proceeding?**

20 A. The purpose of my testimony is to discuss my review and assessment of the Company's filing  
21 through the lens of the Schedule 23 rate class of small business customers taking service from  
the Company under Schedule 23 in order to determine the Company's request results in fair

and reasonable allocation of costs as well as my analysis on the following issues:

1. Rate spread and rate design especially as pertaining to the Company's Report on Schedule 23 Customers "Oregon Schedule 23 Rate Design Alternatives Report" produced in compliance with Paragraph 21 of the UE 374 Partial Stipulation approved in OPUC Order No. 20-473 ("Partial Stipulation") with some discussion regarding the Company's Marketing, Education, and Outreach collaboration with SBUA regarding Schedule 23 customers also from the Partial Stipulation.
2. Given the Company's April 11, 2022 Response to Administrative Law Judge (ALJ) Mapes' March 30, 2022 Bench Request and the various deferrals my testimony will also review the Company's responses.

**Q. How is your testimony organized?**

**A.** My Answer Testimony is organized as follows: Section I is the introduction and purpose of my testimony; Section II discusses my analysis of the Company's Class Cost-of Service Study, Rate Spread and Rate Design proposals; Section III of my testimony discusses my analysis of the Company's UE 374 Report on Schedule 23 Customers; Section IV of my testimony includes my comments and SBUA's position on COVID-19 costs, and my comments on Intervenor Funding Grants where they are included in the Company's April 11, 2022 Response to the ALJ's March 20, 2022 Bench Request, and Section V of my testimony discusses my recommendations and conclusions.

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**Q. Please summarize your recommendations.**

A. Based upon my analysis of the Company's filing and discovery responses, I recommend the Commission approve the following:

- The Commission should consider further rate mitigation to get any Schedule 23 rate increase to be similar to any Residential (Schedule 4) rate increase. So the Schedule 23 9.5% rate increase should be moved much closer to the proposed Schedule 4's 9.1% rate increase for the Residential rate class.
- The Company's inclusion in this rate case a time of use reflecting what the Company learned through the examination of Schedule 23 usage pursuant to the UE 374 Partial Stipulation.
- The Company's inclusion in this rate case a demonstration of the Company's adoption of Marketing, Education, and Outreach Plan specific to Schedule 23 customers.
- Provision that the COVID-19 cost recovery should not be included in this rate case where the Company did not provide notice of this in its initial filing. If this subject is to be included then the Commission should order applying cost causation principle to the costs to be borne by Schedule 23 ratepayers, and other ratepayer classes.
- Provision that the Company's intervenor funding be fairly apportioned among qualified intervenors to ensure intervenor compensation for representation of Schedule 23 customers.

**II. COMPANY'S CLASS COST-OF SERVICE STUDY, AND RATE SPREAD PROPOSALS**

**Q. Who is the Company's witness on its Class Cost-of-Service Study and Rate Spread Proposals?**

A. Mr. Robert M. Meredith, the Company's Director of Pricing and Cost of Service, ("Mr. Meredith"), in his direct testimony, Exhibit proposals. On page 2 of Mr. Meredith's testimony, he summarizes his testimony as the following:

1 “The overall rate increase proposed by the Company in this case, including the effect of  
2 rebalancing the Rate Mitigation Adjustment (RMA) and eliminating the separate large for the  
3 Oregon Corporate Activity Tax Recovery Adjustment (OCAT) (both discussed later in my  
4 testimony), is \$82.2 million or 6.6 percent. The Company is proposing a base rate spread that is  
consistent with the cost of service study in this case. The Company’s rate spread proposes  
continued use of the RMA to achieve a rate increase on January 1, 2023, where no customer rate  
class will see a rate increase more than double the average percent increase.”

5 **Q. What customer classes are included in the Company’s CCOSS model?**

6 A. The following customer classes are listed in PAC’s CCOSS model:

- 7 • Residential Schedule 4  
**General Service**
- 8 • Schedule 23/723 (0-30kW)
- 9 • Schedule 28/728 (31-200kW)
- 10 • Schedule 30/730 (201-999kW)
- Large General Service Schedules 47/747, 48/748 ( $\geq 1,000$ kW)
- Agricultural Pumping Service Schedule 41/741
- Lighting Schedules

11 **Q. What is the Company’s approach to its Class Cost-of Service Study?**

12 A. Mr. Meredith in his testimony and in Exhibit PAC/1102 shows the Company’s proposed revenue  
13 requirement for each of the unbundled service categories required by OAR 860-038-0200. Mr.  
14 Meredith continues his discussion throughout his testimony the approach PAC has taken in its  
15 CCOS study.

16 **Q. Could you comment on the allocation methods the Company used in its CCOSS?**

17 A. I had no problems with the allocation methods chosen by PAC in its CCOSS proposal. They are,  
18 in my opinion, all within a zone of reasonableness reflecting standard cost-of-service ratemaking  
19 principles. However, different experts will have different allocation methods in their CCOSS.

20 CCOSS models are a useful yardstick to the measure costs of serving each rate class, but CCOSS  
21 are not an absolute in designing rates for each rate class.

1 **Q. Do you recommend a state public utility commission set rates solely based on the numbers**  
2 **a CCOS study yield?**

3 **A.** No.

4 **Q. Do you have an authority cite you would like to refer this commission to in support of your**  
5 **no answer above?**

6 A. The Federal Energy Regulatory Commission in Docket No. ER10-1063-00, in its Order  
7 of Rehearing, issued October 2011, in paragraph 20 stated the following: "Under the cost  
8 causation principle, "it has been traditionally required that all approved rates reflect to some  
9 degree the costs actually caused by the customer who must pay them."<sup>1</sup> The courts, recognizing  
that cost allocation is "not a matter for the slide- rule,"<sup>2</sup> have never "required a ratemaking  
agency to allocate costs with exacting precision;"<sup>3</sup> rather, "the cost allocation mechanism must  
not be 'arbitrary or capricious' in light of the burdens imposed or benefits received."<sup>4</sup>

10 **Q. If you don't have overarching issues with Mr. Meredith's CCOS study as it relates to**  
11 **Schedule 23 rate class, then what issues do you have on behalf of Schedule 23?**

12 A. I have issues with the Company's rate spread approach to the Schedule 23 rate class.

13 **Q. What is the Company's rate spread objectives in this case?**

14 A. Mr. Meredith on page 14 of his direct testimony on lines 16-19 states the following:

15 "Under the cost causation principle, "it has been traditionally required that all approved rates  
16 reflect to some degree the costs actually caused by the customer who must pay them."<sup>5</sup> The  
courts, recognizing that cost allocation is "not a matter for the slide- rule,"<sup>6</sup> have never "required

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17 <sup>1</sup> *KN Energy, Inc. v. FERC*, 968 F.2d 1295, 1300 (D.C. Cir. 1992) (*KN Energy*).

18 <sup>2</sup> *Colorado Interstate Gas Co. v. FPC*, 324 U.S. 581, 589 (1945)

19 <sup>3</sup> *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361, 1369 (D.C. Circuit 2004) (*Midwest ISO TOs v. FERC*) (citing  
*Sithe/Independence Power Partners, L.P. v. FERC*, 285 F.3d 1 (D.C. Cir. 2002)).

20 <sup>4</sup> *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361, 1369 (D.C. Circuit 2004) (*Midwest ISO TOs v. FERC*) (citing  
*Sithe/Independence Power Partners, L.P. v. FERC*, 285 F.3d 1 (D.C. Cir. 2002)).

21 <sup>5</sup> *KN Energy, Inc. v. FERC*, 968 F.2d 1295, 1300 (D.C. Cir. 1992) (*KN Energy*).

<sup>6</sup> *Colorado Interstate Gas Co. v. FPC*, 324 U.S. 581, 589 (1945)



a ratemaking agency to allocate costs with exacting precision;”<sup>7</sup> rather, “the cost allocation mechanism must not be ‘arbitrary or capricious’ in light of the burdens imposed or benefits received.”<sup>8</sup>

**Q. If you don’t have overarching issues with Mr. Meredith’s CCOS study as it relates to Schedule 23 rate class, then what issues do you have on behalf of Schedule 23?**

A. I have issues with the Company’s rate spread approach to the Schedule 23 rate class.

**Q. What is the Company’s rate spread objectives in this case?**

A. Mr. Meredith on page 14 of his direct testimony on lines 16-19 states the following: “The Company’s rate spread objectives in this case are to minimize price impacts on our customers while fairly reflecting cost of service and sending proper signals about increasing costs.”

**Q. Do you agree with Mr. Meredith’s statement on rate spread objectives?**

A. I agree with Mr. Meredith’s rate spread objective in principle. This is a standard objective in setting just and reasonable rates. However, I suggest modifications how this objective is applied to Schedule 23 rate class which I will offer later in my testimony as part of my discussion of rate spread and rate mitigation proposals.

**Q. What is the Company’s rate spread proposal in this case?**

A. Mr. Meredith on page 14 of his direct testimony on lines 21-23 states the following:

“Based on the cost of service results and in order to achieve the Company’s rate spread objectives in this case, Table 1 below summarizes the Company’s proposed net percentage price changes for the major rate schedule classes.”

**Table 1**

<b>Residential Schedule 4</b>	<b>9.1%</b>
<b>General Service</b>	
<b>Schedule 23/723 (0-30kW)</b>	<b>9.5%</b>
<b>Schedule 28/728 (31-200kW)</b>	<b>0.0%</b>
<b>Schedule 30/730 (201-999kW)</b>	<b>0.0%</b>
<b>Large General Service Schedules 47/747, 48/748 (≥1,000kW)</b>	<b>5.9%</b>
<b>Agricultural Pumping Service Schedule 41/741</b>	<b>13.2%</b>
<b>Lighting Schedules</b>	<b>0.0%</b>
<b>Overall</b>	<b>6.6%</b>

<sup>7</sup> *Midwest ISO Trans Sithe/Independence*.

<sup>8</sup> *Midwest ISO Trans Sithe/Independence*.

<sup>15</sup> *v. FERC* (citing

<sup>16</sup> *v. FERC* (citing

**Q. Please describe the concept of rate shock?**

**A.** After going through the “at equalized rate of return” allocations, which is the final output from the CCOS study, it may be felt that such allocations would result in some rate classes receiving unacceptably high increases in rate, i.e., rate shock. In order to avoid “rate shock” it may be decided that a movement away from the “at equalized rate of return” allocations may be warranted. “Banding” is a process where a maximum and minimum class rate increase is established.

**Q. Would you please provide an illustrative example of how the banding process might be applied?**

**A.** Yes. Suppose a utility’s overall proposed increase is 20%. The range of class increases may be tightened. For an illustrative example, say that it is proposed that no class gets a rate increase larger than, say, 140% of the overall system increase, and such that no class gets a rate increase smaller than, say, 60% of the overall system increase

- The maximum percent increase =  $(140\%) \times (20\%) = 28.0\%$
- The minimum percent increase =  $(60\%) \times (20\%) = 12.0\%$

**Q. Is there an industry standard in public utility regulation that sets the maximum and minimum increase as part of the banding or rate mitigation process?**

**A.** No, there is no set regulatory standard for the maximum and minimum increase. The process of setting a maximum and minimum often starts with the utility making a proposal and other parties to the proceeding making comments or adjustments to the company’s proposal. Ultimately it is the state public utility commission which makes the final decision on what should be the

maximum and minimum rate increase for each rate class.

**Q. Has the Company such as proposal in its testimony which you have described as banding for rate mitigation?**

**A.** Yes. Mr. Meredith in his direct testimony on page 15, lines 2-8 states the following:

“Under the Company’s proposal, the rate change that takes effect January 1, 2023, will result in no customer rate schedule class receiving an increase greater than double the average increase or 13.2 percent. The Company’s proposed rate spread strikes a balance between moderating rate impacts on customers, while sending proper price signals about increasing costs and minimizing subsidization across rate schedule classes. As a result, the Company proposes revisions to the RMA to achieve these goals.”

**Q. What is the RMA?**

**A.** Mr. Meredith in his direct testimony on page 15, lines 11-16 and page 16, lines 1-3, describes the RMA as the following:

“The RMA, Schedule 299, is designed to mitigate the impacts of changes in the functionalized revenue requirement on net rates across rate schedules. Net rates are the rates that customers pay once all tariff riders (including the RMA) are taken into account. The RMA is designed to be revenue neutral overall at the time a general rate case price change is implemented, resulting in RMA credits for some rate schedule classes requiring rate mitigation with offsetting RMA charges for others. The RMA was first implemented in docket UE 116 to transition to cost of service rates under Senate Bill 1149. The Schedule 299 RMA tariff rider is included in 1 customers’ rates for delivery services in order to minimize the effect of the price change allocation across customer classes.”

**Q. What is the Company’s RMA objective in this case?**

**A.** Mr. Meredith in his direct testimony on page 17, lines 13-23 and page 16, lines describe the RMA objective in this case as the following:

“The Company’s RMA objective in this case is to minimize rate schedule subsidization through the RMA while minimizing impacts on customers. To limit the increase for irrigation customers to roughly twice the average price change, the Company proposes increasing the RMA credit received by irrigation customers. The Company also proposes RMA credits for residential

customers to limit the net increase to about 1.4 times the average increase.

For Small General Service Schedule 23 and Large General Service Schedules 47/747 and 48/748, the Company proposes to eliminate the RMA surcharges and credit rates in order to minimize cross-subsidization. The proposed January 1 net increase for Schedule 23 is 9.5 percent and for Schedules 47/747 and 48/748 is 5.9 percent.”

**Q. Is the elimination of the RMA for Schedule 23 a good thing for its customers?**

A. The RMA is to help mitigate rate shock for a class of customers. For Schedule 23 customers who are still financially recovering for the impacts of COVID-19 rate mitigation would be a good public policy to move to this class gradually to full cost. The elimination of the RMA credit for Schedule 23 at this point in time is not good financially for this class of customers.

**Q. Does Mr. Meredith have an exhibit that estimates the proposed price change on revenues from electric states to ultimate consumers?**

A. Yes, Exhibit PAC/1110, Meredith/1 contains this information. I have inserted this example below for the ease of review.

**PACIFIC POWER**  
**ESTIMATED EFFECT OF PROPOSED PRICE CHANGE**  
**ON REVENUES FROM ELECTRIC SALES TO ULTIMATE CONSUMERS**  
**DISTRIBUTED BY RATE SCHEDULES IN OREGON**  
**FORECAST 12 MONTHS ENDED DECEMBER 31, 2023**

Line No.	Description	Pre Sch No.	Pre Sch No.	No. of Cust	MWh	Present Revenue (\$000)			Proposed Revenue (\$000)			Change				Line No.
						Base Rates	Adder <sup>1</sup>	Net Rates	Base Rates	Adder <sup>1</sup>	Net Rates	Base Rates (\$000)	% <sup>2</sup>	Net Rates (\$000)	% <sup>2</sup>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
								(9) + (7)			(9) + (10)	(9) - (6)	(12)/(6)	(14) - (6)	(15)/(6)	
<b>Residential</b>																
1	Residential	4	4	535,059	3,633,836	\$307,063	\$9,738	\$666,801	\$672,026	(\$10,310)	\$661,716	\$74,963	12.0%	\$34,913	9.1%	1
2	Total Residential			535,059	3,633,836	\$307,063	\$9,738	\$666,801	\$672,026	(\$10,310)	\$661,716	\$74,963	12.0%	\$34,913	9.1%	2
<b>Commercial &amp; Industrial</b>																
3	Gen. Svc. < 31 kW	23	23	84,329	1,137,011	\$124,438	\$1,015	\$125,453	\$137,202	\$216	\$137,418	\$12,764	10.3%	\$11,965	9.5%	3
4	Gen. Svc. 31 - 200 kW	28	28	10,462	1,992,271	\$163,732	\$9,197	\$172,929	\$162,390	\$10,519	\$172,909	(\$1,542)	-0.8%	(\$20)	0.0%	4
5	Gen. Svc. 201 - 999 kW	30	30	797	1,281,583	\$94,197	\$4,696	\$98,893	\$91,983	\$6,862	\$98,845	(\$6,216)	-6.4%	(\$30)	0.0%	5
6	Large General Service >= 1,000 kW	48	48	190	3,555,464	\$224,400	(\$15,394)	\$209,007	\$220,316	\$1,209	\$221,524	(\$4,083)	-1.9%	\$12,518	5.9%	6
7	Partial Reg. Svc. >= 1,000 kW	47	47	6	29,109	\$3,974	(\$120)	\$3,854	\$3,782	\$10	\$3,791	(\$82)	-2.1%	(\$63)	0.0%	7
8	Dist. Only Lg Gen Svc. >= 1,000 kW	648	648	1	0	\$1,805	\$30	\$1,835	\$1,374	\$0	\$1,374	(\$432)	-23.5%	(\$441)	-24.3%	8
9	Agricultural Pumping Service	41	41	7,997	263,565	\$29,124	(\$3,642)	\$25,482	\$24,768	(\$7,856)	\$25,911	\$5,574	19.1%	\$3,362	13.2%	9
10	Total Commercial & Industrial			103,782	8,239,000	\$641,740	(\$4,241)	\$637,499	\$651,812	\$12,090	\$664,792	\$10,072	1.6%	\$27,292	4.3%	10
<b>Lighting</b>																
11	Outdoor Area Lighting Service	15	15	5,809	8,260	\$915	\$74	\$989	\$809	\$181	\$990	(\$106)	-11.0%	\$0	0.0%	11
12	Street Lighting Service Comp. Owned	51	51	1,108	23,893	\$3,498	\$307	\$3,805	\$3,090	\$793	\$3,885	(\$697)	-18.3%	\$0	0.0%	12
13	Street Lighting Service Cont. Owned	53	53	214	11,632	\$417	\$210	\$627	\$346	\$280	\$627	(\$71)	-10.7%	\$0	0.0%	13
14	Recreational Field Lighting	54	54	102	1,141	\$82	\$27	\$109	\$73	\$36	\$109	(\$36)	-33.0%	\$0	0.0%	14
15	Total Public Street Lighting			7,333	44,746	\$3,151	\$608	\$3,759	\$4,338	\$1,292	\$3,830	(\$593)	-15.8%	\$0	0.0%	15
16	Industrial			646,174	13,937,602	\$1,243,934	\$6,196	\$1,250,130	\$1,328,396	\$3,062	\$1,332,337	\$84,442	6.8%	\$82,298	6.0%	16
17	Employee Discount			366	13,030	(\$341)	(\$6)	(\$346)	(\$383)	\$6	(\$383)	(\$42)	-12.4%	(\$36)	0.0%	17
18	AGA Revenue					\$3,521	\$3,521	\$3,521	\$3,521	\$0	\$3,521	\$0	0.0%	\$0	0.0%	18
19	COOC Amortization					\$1,767	\$1,767	\$1,767	\$1,767	\$0	\$1,767	\$0	0.0%	\$0	0.0%	19
20	Total Sales with A-GA			646,174	13,937,602	\$1,248,901	\$6,196	\$1,255,097	\$1,332,301	\$3,068	\$1,335,262	\$84,400	6.8%	\$82,171	6.0%	20

<sup>1</sup> Includes effects of the Low Income Bill Payment Assistance Charge (Sch. 91), BPA Credit (Sch. 95), Public Purpose Charge (Sch. 290) and System Benefit Charge (Sch. 291).

<sup>2</sup> Percentages shown for Schedules 48 and 47 reflect the combined rate change for both schedules.

Exhibit PAC/1110  
Worksheet 1

**Q. Do you have some other observations based on Exhibit PAC/1110 you would like to discuss regarding the Schedule 23 rate class increase?**

**A.** Yes. When one examines the total residential Rate Schedule 4 on line 2, Base % increase is 12.00% with net rates on this same line an increase of 9.1%. Turning to line 3 for General Service (23) Base % increase is 10.3% with the net increase of 9.5%. This gives me cause to pause and question why does residential (4) have a larger percentage Base increase than General Service (23) but ends up with a lower net increase?

**Q. What is your recommendation for the net increase for General Service Schedule 23?**

**A.** As discussed above, I would recommend the Company mitigate or reduce the net increase for General Service (23) of 9.5% to mirror the residential rate class increase of 9.1%.

**Q. Why would it be appropriate to provide additional rate mitigation to the Schedule 23 rate class?**

1 A. The Schedule 23 customers being small businesses were financially hard hit with the impacts of  
2 COVID -19 shutdowns. Some of these ratepayers went out of business and some others who  
3 survived are still struggling to financially survive. By implementing additional rate mitigation  
4 closer to the percentage increase for the residential class, the Commission could lessen the  
5 financial impact that the amount of the rate increase the Company proposes until some point in  
6 the future when these businesses get back on their feet and can bear the financial burden of  
7 higher rates. In summary, I am not advocating that Schedule 23 customers should not pay for  
8 their fair share of the costs they impose on the system, but, like the residential customers, full  
9 movement to full cost for Schedule 23 customers should be done on a gradual basis in order to  
10 prevent rate shock to this class of customers. It is important not have customers in the Schedule  
11 23 rate class drop off the system as the result of a large increase in electricity rates. For this class  
12 of customer, just like the residential class, gradualism in rate increases has merit. In addition,  
13 with the shift from fossil fuel generation to renewable generation, the Company, as well as other  
14 utilities that have generation, will be filing more rate cases in the future to reflect the costs of  
15 shifting generation resources. Therefore, there will be ample opportunities in the future to move  
16 rate classes whose rates are below the full equalized rate of return to the equalized rate of return.

### 17 III.. ANALYSIS OF THE COMPANY'S FOLLOW-UP REPORT IN UE 374

18 **Q. Did the Company submit its follow-up report in UE 374?**

19 **A.** Yes. The Company submitted its "Oregon Schedule 23 Rate Design Alternatives Report" ("UE  
20 374 Schedule 23 Report") in August 2021 to the parties, but did not file this report with the  
21 Commission. Therefore, I include the UE Schedule 23 Report here as SBUA/102.

**Q. How is this UE 374 Schedule 23 Report organized?**

**A.** This report provides the following sections: Background; Time of Use Re-Design; Moderate Time of Use Option; Impactful Time of Use Option; and Conclusion.

**Q. Do you have any comments regarding the section on Time of Use Re-Design?**

**A.** Yes. This section of the UE 374 Schedule 23 Report, it states the following:

“During the winter months of November 1 through March 31, the on-peak period is 6:00 a.m. to 10:00 a.m. and 5:00 p.m. to 8:00 p.m., Monday through Friday excluding holidays. During the summer months of April 1 through October 31, the on-peak period is 4:00 p.m. to 8:00 p.m., Monday through Friday excluding holidays.”

“This option could be modified to better align with more recent information on the value of energy at different time periods and also to simplify the periods.”

**Q. Did you observe the current rate case UE 399 and modifications included in this rate case to reflect the implementation of the comment above?**

**A.** No.

**Q. Do you have any comments regarding the section on Moderate Time of Use Option?**

**A.** Yes. This section of the UE 374 Schedule 23 Report states the following:

“Applying these to the net average rate for Schedule 23 of about 11¢ per kWh yields a net rate of about 10¢ per kWh for off-peak usage and 16¢ per kWh for on-peak usage or about a 1.60 times differential. If a typical Schedule 23 customer were able to shift half of its on-peak usage to off-peak times on this option, it could save \$5.85 out of a total bill of \$126 or about 4.6 percent.”

**Q. Did you observe in the current rate case UE 399 and modifications included in this rate case to reflect the implementation to the comment above?**

**A.** No.

**Q. Do you have any comments regarding the section on Impactful Time of Use Option?**

1 A. Yes. In this section of the report, it states the following:

2 “Applying these to the net average rate for Schedule 23 of about 11¢ per kWh yields a net rate of  
3 about 7¢ per kWh for off-peak usage and 29¢ per kWh for on-peak usage. If a typical Schedule  
4 23 customer were able to shift half of its on-peak usage to off-peak times on this option, it could  
5 save \$21.46 out of a total bill of \$126 or about 17.0 percent.”

6 **Q. Did you observe in the current rate case UE 399 and modifications included in this rate**  
7 **case to reflect the implementation to the comment above?**

8 A. No.

9 **Q. Do you have any comments regarding the section on the Company’s Conclusions?**

10 A. Yes. In this section of the report, it states the following:

11 “The Schedule 23 portfolio time of use option could be re-designed to use time periods that are  
12 simpler and better reflect the present view of the value of energy at different times. The  
13 differential between on- and off-peak price for such a re-designed option could be set at different  
14 levels. There are pros and cons to either a smaller differential or a more expansive differential.”

15 **Q. Did you observe in the current rate case UE 399 and modifications included in this rate**  
16 **case to reflect the implementation to the comment above?**

17 A. No.

18 **Q. What is your overall conclusion of UE 374 Schedule 23 Report and its findings?**

19 A. Although the Company provides some good options to consider for Schedule 23 rate class  
20 customers it appears that the Company chose not to include any of the options it discusses in this  
21 report, which needless to say is disappointing. The Commission should order the Company to  
answer why it has not included any of the rate design options outlined in its follow-up report in  
its current rate filing.



1 Q. What else did the Company agree to in UE 374 with respect to the Schedule 23 customers?

2 A. The Company agreed to review its marketing, outreach, and education (“ME&O”) to these  
3 customers, and to confer with SBUA about that.

4 Q. Did the Company do that?

5 A. Yes, in August 2021 the Company presented its ME&O regarding small general service  
6 customers. And SBUA shared information regarding best practices in ME&O regarding small  
7 commercial customers. This SBUA information is found in a compliance filing from December  
8 28, 2021 in docket UE 374.

9  
10 Q. Did the Company change its practices re outreach to Schedule 23 following that review and  
11 conference with SBUA?

12 A. Yes, the Company states that is has conducted a communication and outreach survey to establish  
13 what small businesses preferred forms of contact are for ME&O. Based on the survey results the  
14 Company concluded that email was the preferred form of contact, leading to the Company  
15 expanding its email platform. Then acting on this expansion Company through provided through  
16 email information on rebates to non-residential customers that install level 2 chargers.

17 Q. Why is outreach to this rate class important?

18 A. Outreach by the Company to this rate class is important because, as I stated earlier in my  
19 testimony these small commercial customers have been hit hard by COVID-19 and should  
20 benefit from reasonable education of behaviors they can adopt to reduce their electric bills.

21 Q. Is there any other reason education of and outreach to this customer class are important?

1 A. Yes. As Oregon shifts to renewable generation there will be costs associated with that shift, and  
2 to reduce costs it is only fair to educate the consumer on their electricity costs. This is especially  
3 important with a customer class as large as this one, that is Schedule 23.  
4

5 **IV. COMMENTS REGARD RESPONSES TO ALJ MAPES' BENCH REQUEST DATED**

6 **MARCH 30, 2022**

7 **Q. Do you have any comments regarding the ALJ 's Bench Request and the Company's**  
8 **response?**

9 A. Yes. The Bench Request is reasonable since it assures identification of all applicable company  
10 information impacting customer rates on the table for possible consideration.  
11

12 **Q. What is the impact of the Bench Request on this rate case?**

13 A. It can expand the scope and breath of the rate case. There is also the possibility that the  
14 Commission wants more information on what each utility has in deferrals. This may also bring  
15 up a customer notice issue if these deferrals are taken up in this rate case. In order for these  
16 deferrals to be part of this rate case, the Company would probably need to file testimony and  
17 exhibits on these deferrals.

18 **Q. Are there specific deferrals you would like to offer comment on?**

19 A. Yes, I would like to offer comments regarding the topics of COVID-19 Costs and Intervenor  
20 Funding Grants.

21 **Q. Do you wish to offer comments regarding the COVID-19 deferral?**

A. Yes. The Company's response to ALJ's Bench Request lists the Company's COVID-19 Costs the

current balance (as of 12/31/21) \$17,386,813.44. This is a large number, and it is important that this be fairly allocated to achieve fair and reasonable rates for all ratepayers including Schedule 23 ratepayers. If COVID-19 costs are brought into this rate case, then the Company should file testimony on COVID-19 costs and the Company's proposal for cost recovery.

**Q Should the COVID-19 deferrals be treated as one cost?**

A. No, unless doing so would achieve fair and reasonable rates. The UM 2114 Stipulation Investigation into the Effects of the COVID-19 Pandemic on Utility Customers approved in Commission Order 20-401 ("UM 2114 Stipulation"), and Mr. Kermode, refer to the 2114 Stipulation's different categories of COVID-19 related costs.

**Q. Are these different COVID-19 related costs identifiable?**

A. Yes. The UM 2114 Stipulation sets out different costs categories, Mr. Kermode refers to different categories. The Company's FERC Form 1 shows that the COVID-19 Bill Repayment Assistance Program. Since the Company did not include COVID-19 in its filing I have not otherwise reviewed COVID-19 costs in depth for this Opening Testimony.

**Q. Has the Company proposed in this docket an amortization schedule for COVID-19 costs?**

A. The Company states that they will propose an amortization schedule in a future filing.

**Q. What is pancaking?**

A. Pancaking is the stacking of one unadjudicated rate increase on top of another before a regulatory commission approves them.

**Q. Is pancaking a concern here with regard to including the COVID-19 deferral into this rate**

1           **case?**

2       A:    The answer depends on the number of years COVID-19 relief would continue. If the COVID-19  
3   relief is intended to end this year (2022), waiting until a next rate case will allow a cleaner handling of  
4   the issue in one single rate case. That would also allow time to obtain the data needed to deal with  
5   these significant costs justly and reasonably.

6       **Q:   Is there another reason to wait to deal with COVID-19 related deferrals?**

7       A.    Yes. This would also allow the proper notice of this issue in the rate case. As it is in this rate  
8   case, the Company did not include this issue in its original filing and so the Company did not give  
9   notice to the Commission or ratepayers that it would be including this issue of significance in its  
10   filing.

11       **Q.   Has SBUA supported examining the issue COVID-19 costs recovery in a separate**  
12       **proceeding versus in a general rate case?**

13       A.    In the UM 2114 docket, referred to above, SBUA recommended examining in that docket the  
14               subject of cost recovery for COVID-19 with regards to small commercial customers. SBUA's  
15               expert identified that the topic could be more efficiently dealt with and allow adequate time to  
16               review, analyze and recommend various recovery mechanisms for COVID-19 costs.

17       **Q.   Has SBUA submitted comments regarding cost recovery for COVID-19 costs associated**  
18       **with small business customers?**

19       A.    Yes. SBUA submitted its comments in UM 2114 and in a rule making proceeding AR 653: OAR  
20               860-021-0126 Late Payment Charge, OAR 860-021-0326 Disconnection of Gas or Electric  
21               Service to Tenants, OAR 860-021-0330 Reconnection Fee for Utility Service.

1 **Q. Please summarize SBUA's comments and positions regarding COVID-19 costs.**

2 **A.** SBUA comments in their entirety are available through the OPUC's e-dockets portal. Basically,  
3 SBUA's position is based on comments of SBUA's expert witness Danny Kermode CPA. Mr.  
4 Kermode recommended on behalf of SBUA that the Commission order a workshop to identify a  
5 framework that could be applied regarding recovery of deferrals with regard to small commercial  
6 customers. With regard to costs, Mr. Kermode has recommended that small business customers  
7 pay only the costs of serving them as a rate class. As stated by Mr. Kermode in his November 4,  
8 2021 letter in UM 2114 on behalf of SBUA:

9 "There is no question that the commission should allow the deferral of those reasonable and  
10 prudently incurred costs reflected in the stipulation. However, my concern focuses on the  
11 possibility that small businesses will be saddled with costs created by the residential class.  
12 Specifically, deferred late payment fees, bad debt expenses, and the forgone reconnection fees.  
13 Small businesses, though sometimes equated to the residential class because of similar load  
14 demands, is financially different. I would recommend that any deferrals of late payment fees, bad  
15 debt, and reconnection fees be clearly segregated between residential and small commercial.  
16 While I recognize the severe impact COVID has put on residential customers, it's important we  
17 all recognize that the financial viability of the state's local small business continues to be  
18 precarious.

19 Though buried in the combine data, it appears that the bad debt burden associated with the  
20 residential class is substantially greater than the bad debt burden associated with the small  
21 business community. This disparity is not limited to only bad debt, but is the same for deferred  
late fees and reconnection revenue. It is important that any of the revenue deferrals and bad debt  
be clearly divided to recognize the differences in class. In this way the commission can prevent  
added financial burden on small business of the cross-subsidization of small business of  
residential customers. "

18 **Q. Do agree and support Mr. Kermode's positions as it they may apply to the**  
19 **Company's filing in UE 399?**

20 **A.** Yes. The issues highlighted by Mr. Kermode must be investigated in any filing submitted by PAC  
21 for COVID-19 cost recovery, since Schedule 23 rate class customers should only pay for costs,  
they imposed on the cost of serving this rate class.

1     **Q. What is one of your concerns about Schedule 23 rate class customers paying for the costs**  
2     **the COVID-19 programs have imposed on the system?**

3     A. As it has been pointed out by SBUA in UM 2114 and in other dockets, both the Washington and  
4     California utility commissions, which issued orders addressing impacts of the COVID-19  
5     pandemic generally similar to the OPUC Order 20-014, had longer shutoff moratoria and more  
6     programs for small commercial customers. The focus in Oregon was on the residential customers  
7     and the costs incurred with the longer shutoff moratoria and other programs that applied  
8     primarily to the residential class. Therefore, those costs in Oregon should be paid only by the  
9     residential class as cost causer, they should pay the cost they imposed on the system.

1 **Q. Do you have any comments to offer regarding the Bench Request and the Company's**  
2 **response, related to intervenor funding?**

3 A. Yes

4 **Q. What comment would you offer based on your experience as a small business owner and**  
5 **regulatory consultant?**

6 A. Without my regulatory knowledge, I would totally be overwhelmed by the regulatory process. As  
7 a former regulatory and now independent consultant, I have witnessed the dynamics involved in  
8 cost allocations, rate spread and rate design. Generally speaking, in the revenue requirement  
9 phase of a rate case, the various parties join forces to try to reduce as much as possible the  
10 amount of the company's increase in rates. This collaboration falls apart in CCOS, rate spread  
11 and rate design, phases of a rate case, where each party representing a rate class tries to get the  
12 other rate classes to pay more than their individual rate class. Traditionally, the residential class  
13 has been represented by a strong consumer advocate which is often a state agency. Rate classes  
14 such as industrial users and large commercial customers are also well represented because they  
15 have the financial resources to hire their own experts to advocate for their position of keeping the  
16 amount of their rate increase low as possible.

17 **Q. In the scenario you painted above which class of customers is generally missing without**  
18 **funding grants?**

19 A. It has been my experience that the small business customer is missing from the discussion table  
20 to ensure it doesn't bear more than its fair share of costs. In summary, intervenor funding grants  
21 are important to organizations like SBUA who represent the class of small business customer  
who are the second largest rate class in customer numbers on the Company's system.

**V. RECOMMENDATIONS AND CONCLUSIONS**

**Q. What are your recommendations?**

A. The following are my recommendations:

- The Company should consider rate mitigation to get Schedule 23 rate classes 9.5% rate increase closer to the 9.1% rate increase for the Residential rate class, keeping the rates more similar.
- The Commission should direct the Company to respond why it has not implemented any of its findings in the Company's UE 374 Schedule 23 Report. Alternatively, the Company should utilize the UE 374 Schedule 23 Report and create from that rate design options for Schedule 23 customers.
- The Commission should direct the Company to produce a Marketing, Education, and Outreach Plan specific to small general service customers.
- COVID-19 cost recovery should not be considered in this general rate case where it was not included in the Company's filings and the costs are not completed. If the Commission decides to consider COVID-19 cost recovery in this docket, then it should require the Company to notice customers and to provide testimony on its suggested recovery, and the Commission should apply cost causation principle in evaluating fair apportionment of costs.
- The Commission should require fair apportionment of intervenor funding grants for qualified organizations representing small commercial customer.

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

A. Yes.



BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON  
UE 399

SMALL BUSINESS UTILITY ADVOCATES

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STATEMENT OF QUALIFICATIONS WILLIAM A. STEELE

**Resume**  
**William (Bill) Steele**

**Bill Steele and Associates LLC**  
**9554 Brentford Drive**  
**Highlands Ranch, CO 80130**  
**(303) 921-3808**  
**w.steele1@icloud.com**  
**billsteeleandassociates.com**

**Summary of Qualifications**

Mr. Steele has over 40 years of experience in public utility regulation in which he has acquired extensive knowledge of the electric, gas and telecommunications industries. His expertise in revenue requirement, cost-of-service, cost of capital and rate design has allowed him to serve his clients in utility accounting and financial matters. Mr. Steele offers his consulting services as an expert witness, regulatory advisor and a trainer in public utility matters. Prior to forming Bill Steele and Associates LLC, Mr. Steele spent 34 years with the Colorado Public Utilities Commission as an Advisor to the Commissioners and as an expert witness. Mr. Steele has also been an instructor at the Center for Public Utilities "Basics of Regulation" training course for the last 24 years.

**Professional Experience**

**2012 - Present      President, Bill Steele and Associates, LLC**

Following a 34-year career with the Colorado Public Utilities Commission, Mr. Steele formed a consulting practice in order to continue to provide his professional services in the area of regulatory policy development and rate regulation of public utilities. His expertise in revenue requirements, cost-of-service, cost of capital, and rate design allowed him to serve clients in the electric, gas and telecommunications industries.

Since forming Bill Steele and Associates LLC, Mr. Steele had provided expert witness and advisory services to some of the following clients: The Colorado Office of Consumer Counsel; The Alliance for Solar Choice (TSAC), Western Resource Advocates of Nevada, the Wired Group, Southwest Power Pool, The Alliance of Small Business

Advocates of Oregon, the Attorney General of the State of Vermont, Gegax consulting and Tahoe Economics. In addition, Mr. Steele had provided in house training service for some of the following organizations: the Utility Consumer Advocate of Colorado, the Colorado Public Utilities Commission, the Montana Public Service Commission, Otter Tail Power, Cobb MEC and a consortium of executives from electric distribution utilities serving the country of Nigerian.

Mr. Steele has also been an instructor at “Basics of Regulation” training course offered by the Center for Public Utilities (CPU) at New Mexico State University for over 24 years. The main topics which Mr. Steele teaches included revenue requirements, a hands-on revenue requirement problem, class cost-of-services studies and other regulatory topics as required. Mr. Steele In his role as an instructor at the CPU has trained numerous state commissioners, members of state commissions staff, as well as, members from industry and consumer advocate organizations. Besides being an instructor at the CPU, he also serves on the CPU’s Advisory Council. In addition to teaching at the CPU, Mr. Steele also teaches a basic FERC accounting course and alternative ratemaking mechanisms course for the training firm EUCI. In 2021, Mr. Steele also starting teaching a course for the National Regulatory Research Institute’s Regulatory Training Initiative on Accounting and Ratemaking.

On January 5, 2018, Colorado Governor Hickenlooper by Executive Order (A 2008 002) appointed Mr. Steele to serve as a representative for small businesses on the Utility Consumers Board (UCB). Mr. Steele as a board member of UCB, provided to the Office of Consumer Counsel general policy guidance on matters that involve utility regulation and legislative matters. In November 2018. He was reappointed to the UCB by Governor Polis on March 5, 2020 and was elected its Chairman on July 14, 2020.

### **2004 -2012 Commission Advisor, Colorado Public Utilities Commission**

Mr. Steele served as an advisor to the three Colorado Public Utilities Commissioners and the Commission’s six Administrative Law Judges. Mr. Steele demonstrated his broad expertise in the areas of electricity and natural gas utility regulation, which included the areas of revenue requirements, cost-of-service analysis and rate design. He also served in the role as the Commission’s subject matter expert in utility accounting and finance matters.

In addition, Mr. Steele's advisory responsibilities included the training of new Commissioners as well as conducting in-house training courses on various utility issues, such as how to apply traditional regulatory principles to emerging issues in public utility regulation.

### **1978 – 2004 Principal Financial Analyst, Colorado Public Utilities Commission**

Mr. Steele served in various roles as a financial analyst from 1978 until his promotion to supervisor in 1987. Mr. Steele supervised the Financial Analysts in the Commission's Fixed Utilities Section. His duties in that role included the training of new financial analysts as well as providing expert testimony in rate case proceedings as well as testimony on policy issues concerning accounting, financial and operational matters.

Mr. Steele and his Financial Analyst's also conducted special investigations and audits including the circumstances that lead to the Colorado-Ute Electric Association's bankruptcy, which at that time was the largest bankruptcy in the history of the United States.

Mr. Steele has presented testimony in over 50 cases before the Colorado Public Utilities Commission, Denver District Court and United States District Court on accounting, financial and management issues.

Because of Mr. Steele's vast experience and his ability to effectively train commission staff, the three Commissioners and the Director of the Commission asked Mr. Steele to accept a position with as an Advisory to the Commissioners.

### **Degrees**

Bachelor of Science degree in Business Administration from the University of Northern Colorado

Masters in Business Administration degree from the University of Phoenix.

### **Selected Consulting Projects of Bill Steele and Associates LLC**

Application 21-06-021 "In the matter of: Application of Pacific Gas and Electric Company for Authority, Among Other Things, to Increase Rates and Charges for Electric and Gas Service Effective on January 1, 2023." Opening

Panel Testimony of Paul J. Alvarez, William Steele, And Dennis Stephens on behalf of AARP, submitted on June 10, 2022

UE-394 “In The Matter Of Portland General Electric Company Request For A General Rate Revision.” In the proceeding, Mr. Steele provided consulting services to the Small Business Utility Advocates (SBUA) of Oregon regarding the full range of rate case issues including revenue requirements, rate spread, rate design, decoupling and COVID-19 matters.

Mr. Steele was one of five independent experts chosen as the first Industry Expert Panel (IEP) for Southwest Power Pool (SPP). The purpose of the IEP was to evaluate and make recommendations to the SSP’s Board of Directors concerning the competitive bids submitted for the construction of the Wolf Creek Black Berry transmission project. Mr. Steele’s primary area of review and evaluation was the rate analysis section. In this section Mr. Steele examined each bid’s cost to construct and operate the project based on a Net Present Value calculation over a 40 year time period. His secondary responsibility was to evaluate the financial viability and creditworthiness of the bidders. The IEP began its work in November 2019 and completed its work in October 2021 (23 months).

“Advice No. 21-001/UE 374, In the Matter of PACIFICORP, dba PACIFIC POWER, Request for a General Rate Revision. In the proceeding, Mr. Steele filed testimony on behalf of the Small Business Utility Advocates of Oregon regarding cost allocation and rate design issues for the small commercial rate class.

“Before The Public Utilities Commission of the State of Colorado, Proceeding No. 20AI-0049G, Public Service of Colorado request to increase rates for all Natural Gas Sales. In the proceeding, Mr. Steele filed testimony on behalf of the Colorado Office Consumer Council regarding cost allocation and rate design issues for the residential and small commercial rate classes.

“Report to the State of Vermont Attorney General on Review and Analysis of the Department’s Performance Under ACT 130 Standards For the Washington Electric Cooperative (WEC) Rate Case”, submitted on December 31, 2019

“Application of Sierra Pacific Power Company d/b/a NV Energy for authority to adjust its annual revenue requirement for general rates charged to all classes of electric customers and for relief properly related there to”, Docket No. 16-06006. In this proceeding, Mr. Steele presented expert witness written and oral testimony on behalf of Nevadans for Clean Affordable Reliable Energy (“NCARE”) on the issue of fixed cost recovery for residential and small commercial customer classes, and the issue of having separate rate classes for net metered residential and small commercial customers.

“Petition of Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid for approval by the Department of Public Utilities of its Grid Modernization Plan.” D.P.U. 15-120. In this proceeding, Mr. Steele is a technical consultant with the Wired Group who has been retained by the Office of Ratepayer Advocacy, Massachusetts Office of The Attorney General. In this docket, Mr. Steele is leading the investigation into National Grid’s proposed rate designs, cost recovery methods, and bill impact estimates as set forth in the Company’s grid moderation plan.

“Petition of Fitchburg Gas and Electric Light Company d/b/a Unitil for approval by the Department of Public Utilities of its Grid Modernization.” Plan. D.P.U. 15-121. In this proceeding, Mr. Steele is a technical consultant with the Wired Group who has been retained by the Office of Ratepayer Advocacy, Massachusetts Office of The

Attorney General. In this docket, Mr. Steele is leading the investigation into Unitil's proposed rate designs, cost recovery methods, and bill impact estimates as set forth in the Company's grid moderation plan.

"Petition of NSTAR Electric Company and Western Massachusetts Electric Company, each d/b/a Eversource Energy, for approval by the Department of Public Utilities of their Grid Modernization Plan. "D.P.U. 15-122. In this proceeding, Mr. Steele is a technical consultant with the Wired Group who has been retained by the Office of Ratepayer Advocacy, Massachusetts Office of The Attorney General. In this docket, Mr. Steele is leading the investigation into Eversource's proposed rate designs, cost recovery methods, and bill impact estimates as set forth in the Company's grid moderation plan.

Mr. Steele was one of five independent experts chosen as the first Industry Expert Panel (IEP) for Southwest Power Pool (SPP). The purpose of the IEP was to evaluate and make recommendations to the SSP's Board of Directors concerning the competitive bids submitted for the construction of the Walkemeyer transmission project. Mr. Steele's primary area of review and evaluation was the financial viability and creditworthiness of the bidders as well as his secondary responsibility was to evaluate the bidder's proposed rate design. The IEP began its work in November 2015 and completed its work in May 2016 (7 months).

"In The Matter Of The Application Of El Paso Electric Company Of New Mexico For Revision Of Its Retail Electric Rates Pursuant To Advice Notice No. 236," Case No. 15-00127-UT. In this proceeding, Mr. Steele filed expert witness written testimony on behalf of The Alliance for Solar Choice ("TASC") opposing El Paso Electric's proposal to place DG customers into a separate rate class.

## **Recent Presentations**

"The Basics of Utility Accounting and Ratemaking for Regulators" A course for the National Regulatory Research Institute's Regulatory Training Initiative, presented March 1-3, 2022.

"The Basics of Utility Accounting and Ratemaking for Regulators" A course for the National Regulatory Research Institute's Regulatory Training Initiative, presented January 26-28, 2021

"Accounting Methods For The Interim Regulatory Treatment of COVID-19 Costs" presented at the National Regulatory Research Institute's Webinar on May 27, 2020.

"Alternative Ratemaking Mechanisms" presented to the National Association of Regulatory Utility Commissioners Staff Subcommittee on Accounting & Finance-Spring 2019 Conference

"Price Cap Electric Ratemaking: Does it Merit Consideration?" Bill Steele and Paul Alvarez. Electricity Journal. In production for October, 2017 issue.

"Above the Line or Below the Line, Where Should the Cut Be?", presented to the National Association of Regulatory Utility Commissioners Staff Subcommittee on Gas-2014 Annual Meeting

"Incentive Mechanisms", presented to the National Association of Regulatory Utility Commissioners Staff Subcommittee on Accounting & Finance-Fall 2013 Conference

"Benchmarking", presented to the National Association of Regulatory Utility Commissioners Staff Subcommittee on Accounting & Finance-Spring 2013 Conference

## **Electric Industry Training Presentations**

“Alternative Ratemaking Regulation” in-house training for the Colorado Public Utilities Commission conducted on January 15-16, 2020.

“FERC Accounting 101 - The Basics of the Uniform System of Accounts (USof A) for electric and Gas Utilities.” Conducted on behalf of EUCI, held at Costa Mesa, CA on January 22-23, 2020.

FERC Accounting 101 - The Basics of the Uniform System of Accounts (USof A) for rural electric utilities”, in-house training for Cobb MEC, held on October 23, 2019.

“FERC Accounting 101 - The Basics of the Uniform System of Accounts (USof A) for electric and Gas Utilities.” Conducted on behalf of EUCI, held at Houston, TX on July 19-20, 2019.

FERC Accounting 101 - The Basics of the Uniform System of Accounts (USof A) for electric utilities”, in-house training for Otter Tail Power, held on June 19, 2019.

“Public Utility Accounting and Ratemaking Principles for Electric and Gas Utilities.”, in-house training for the staff of the Montana Public Service Commission held on April 3-4, 2019.

FERC Accounting 101 - The Basics of the Uniform System of Accounts (USof A) for electric and Gas Utilities.” Conducted on behalf of EUCI, held at Denver, Co on January 17-18, 2019.

“Executive Training on Uniform System of Accounts (USoA), Principles, Practice, & Case Studies”, for Nigerian Distribution Utilities on behalf of Stride Professional Services U.S.A.

## **Electric Industry Presentations at the Center for Public Utilities**

The Process for Determining the Revenue Requirement  
Hands-on Revenue Requirement Problem  
The Process for Determining a Class Cost of Service Study  
Energy Efficiency Mandates  
Integrated Resource Plans  
Renewable Resource Programs  
Demand Side Resource Programs  
Determining the Financial Impact of Demand Side Resource Programs  
Feed-in-Tariffs  
Special Riders and Cost Recovery Mechanisms  
Decoupling vs. Lost Revenue Adjustments  
Renewable Energy, Distributed Generation (DG) & Net Metering  
The Process and Procedures of a Rate Case

## **Telecommunications Industry Presentations at the Center for Public Utilities**

The Basics of Inter-carrier Compensation Cost Models  
How to Test for Predatory Pricing  
Federal Act of 1996 Pricing Methods – Total Element Long Run Incremental Cost (TELRIC)  
Hands-on Problem for How to Calculate a TELRIC Price  
The Process of Determining The Need For Additional Area Codes  
How the E-911 System Operates  
What Are N11 Codes?  
The Relationship of Telecommunications Technology, Regulation and Pricing



## **Other Regulatory Presentations of Mr. Steele**

Methods for Determining The Cost of Equity

Cost of Capital Issues

Imputed Debt and Purchase Power Agreements

The Relationship of CWIP and AFUDC

The Revenue Requirement Process For Electric Utilities

The Class Cost of Service Study Process For Electric Utilities

The Revenue Requirement Process for Natural Gas Utilities

The Class Cost of Service Study Process for Natural Gas Utilities

The Process of Auditing a Phase I/ Revenue Rate Case

The Process of Analyzing Mergers and Acquisitions the Process of Rate Design

The Relationship Between Management Audits and Rate Cases History of Telecommunications

Current Issues in Telecommunications Regulation

The Process of Auditing Small Telephone Companies' Rate Case Filings

An Overview of The Federal High-Cost Fund for Telecommunications Carriers

Auditing Executive Compensation Levels in The Telecommunications Industry

The Sale and Leaseback of Craig Station Unit No. 3 Power Plant

An Overview of The Colorado-Ute Electric Association's Bankruptcy

## **Energy Proceedings in Which Mr. Steele Served as a Commission Advisor**

Black Hills Colorado Electric Utility Company's Phase I Electric Rate Case in Docket No. 11AL-387E. I advised on the issues of what is an appropriate authorized return on equity; capital structure; cost of long-term debt and interest synchronization.

Public Service Company of Colorado's Phase I Gas Rate Case in Docket No. 10AL-936G. I advised the Commissioners on the issues of Capital Structure, Long-Term Debt, Return on Equity and Imputed Debt.

Black Hills Colorado Electric Utility Company's Phase I Electric Rate case in Docket No. 10AL-008E. Advised on the following issues: authorized return on equity; capital structure; and revenue requirement.

Black Hills Colorado Electric Utility Company's Application to Implement a Purchased Capacity Cost Adjustment ("PCCA") Mechanism in Docket No. 09A-837E.

Public Service Company of Colorado's Phase II electric rate cases & I. Docket No. 09AL-299E. In the Phase I portion, I advised the Commissioners on the issues of Capital Structure, Long-Term Debt, Return on Equity and Imputed Debt. On the Phase II portion, I advised the Commissioners on the issues of Class Cost of Service Study, Service and Facilities Charges, and Provisions of Special Contract Rates.

Transfer of Aquila's Colorado Electric and Gas Operations to Black Hills Corporation in Docket No. 08A-837G

Public Service Company of Colorado's 2007 Electric Colorado Resource Plan Docket No. 07A-477E. In this docket I advised the Commissioners on the issues of the application of weighted average cost of capital and the issue of imputation of debt for purchased power agreements in relation to the criteria for bid evaluations.

Public Service Company of Colorado's Demand Side Management Program and Cost Incentive Adjustment – Docket No. 07A-420E. In this docket I assisted the Advisory Staff's DSM expert in understanding traditional rate making concepts and how those concepts need to be modified to develop options for the Commissioners to consider in developing a DSM incentive mechanism for DSM cost recovery as mandated by Colorado Statute.

Public Service Company of Colorado's Revision's to its Interruptible Service Order Service Credit in Docket No. 07S-521E. In this docket I advised the Commissioners on what are appropriate cost recovery components when compensating industrial users for being interrupted as a result of a need for demand response to shave peak load.

"Investigation of Regulatory and Rate Incentives" in Docket No. 08I-113EG. My role in this generic docket before the Commissioners was to look at alternative ways of regulated electric and gas utilities as the regulatory landscape evolves. I was also tasked with looking at developing benchmark performance standards as well.

Public Service Company of Colorado's Phase II Gas Rate Case in Docket No. 08S-146G. In this case I advised the Hearing Commissioners on the Class Cost of Service Study and Rate Design.

Public Service Company of Colorado's Phase I Rate Case in Docket No. 08S-520E. In this docket I advised the ALJ on revenue requirement issues.

Public Service Company of Colorado's Application for Approval of a Contingency Plan for Meeting The 2013 Resource Need and its Request for Approval of Amendment of Purchase Power Contracts with Tri-State Generation and Transmission, Inc. in Docket No. 07A-107E. In this docket I advised the Commissioners on the adequacy of the Company's contingency plan and whether the approval of the amended of the Tri-State purchase power contract was in the public interest.

Public Service Company of Colorado's Electric Phase I Rate Case in Docket No. 06S-234EG. In this docket I advised the Commissioners on the issues of Capital Structure, Return on Equity and the regulatory treatment and pricing of the Company's renewable program called Windsource.

Public Service Company of Colorado's Application for Approval of An Energy Exchange Agreement between Public Service and PacifiCorp in Docket No. 06A-015E. In this docket I advised the ALJ on whether the acceptance of the Settlement Agreement was in the Public Interest.

Public Service Company of Colorado's Application to Amend its 2003 Resource Plan to Shorten Acquisition Period in Docket No. 05A-543T. In this docket I advised the Commissioners on what resource acquisition criteria should be placed on the Company in evaluating future resource acquisition bids.

Public Service Company of Colorado's Electric and Gas, Phase I Rate Case in Docket No. 02S-315EG. In this docket I advised the Commissioners on the issues of Capital Structure, Return on Equity and various regulatory principles.

Public Service Company of Colorado's Gas, Phase I Rate Case in Docket No. 00S-422G. In this docket I advised the Commissioners on the issues of Capital Structure, Return on Equity, Depreciation and various regulatory principles.

## **Telecommunications Proceedings in Which Mr. Steele Served as a Commission**

### **Advisor**

The Application of US Connect LLC for Designation as an Eligible Telecommunications Carrier in the State of Colorado in Docket No. 11A-986T.

The Application of Q Link Wireless LLC for Designation as an Eligible Telecommunications Carrier in the State of Colorado in Docket No. 11A-985T.

The Application of Nucla-Naturita Telephone Company and NNTC Wireless, LLC For Redefinition of Service Area Pursuant to Commission Decision No. C11-0551 in Docket No. 11A-938T.

The Application of TAG Mobile, LLC, For Designation as an Eligible Telecommunications Carrier in the State of Colorado for the Limited Purpose of Offering Wireless Lifeline and Link-Up Service to Qualified Households (Low Income Only) in Docket No. 11A-815T.

The Application of Terracom, Inc. For Designation as an Eligible Telecommunications Carrier on a Wireless Basis for The Limited Purpose offering Federal Lifeline and Link-Up Programs in Docket No. 11A-744T.

The Petition of Nucla-Naturita Telephone Company for High-Cost Support Mechanism Funding in Docket No. 11M-720T.

The Application of Virgin Mobile USA, LP. For Limited Designation as an Eligible Telecommunications Carrier in the State of Colorado in Docket No. 11A-657T.

The Petition of Wiggins Telephone Association for High-Cost Support Mechanism Funding in Docket No. 11V-594T

The Creation of a Telecom Advisory Group for The Purpose of Informing the Commission on Current Advancements in Telecommunications Technology and The Telecommunications Marketplace Pursuant to § 40-15-101, C.R.S, in Docket No. 10M-565T

CenturyLink's acquisition of Qwest Communications in Docket No. 10A-350T.

The Application of Union Telephone Company, Doing Business as Union Wireless for Designation as an Eligible Telecommunications Carrier in Colorado in Docket No. 09A-771T.

The Petition of Qwest Corporation for Variances and Waivers from Certain Reporting Requirements in Docket No. 09V-146T.

The Petition of Phillips County Telephone Company of Phillips County, Colorado for High-Cost Support Mechanism Funding, in Docket No. 08V-510T

Formal Complaint of Qwest Communications versus various Competitive Local Exchange Carriers in Docket No. 08F-259T.

Qwest Corporation's Application to Set the Maximum Price For Residential Basic Local Exchange Service Pursuant to Section 40-15-502, C.R.S. in Docket No. 08A-403T. Advised on the following issues: Appropriate methodology for calculating Changes in the Cost and Price of Providing Service; cost methodology for calculating Net Revenues; the appropriateness of the whether Bifurcation of Rates for High and Low Cost Wire Centers; impact of changing rates on the Colorado High Cost Surcharge Mechanism. I also assisted on court appeal in research and write court brief to Colorado Supreme Court.

Sprint Communications Company L.P.'S Petition for Arbitration with CenturyTel of Eagle, Inc. Pursuant to § 252(B) of The Communications Act of 1934, as Amended by The Telecommunications Act of 1996 in Docket No. 08B-121T.

The Petition of Qwest Corporation for Arbitration of an Interconnection Agreement with Union Telephone Company under § 252 of The Federal Telecommunications Act of 1996 in Docket No. 04B-491T.

The Application of N.E. Colorado Cellular, Inc., For Designation as an Eligible Provider Carrier Under 4 CCR 723-41 in Docket No. 00A-491T.

## **Mr. Steele's Testimony Before The Colorado Public Utilities Commission, State and Federal Courts**

"Rate of Return, Income Statement, and Rate Base," Union Rural Electric Association, Inc., Investigation & Suspension Docket No. 1490, March 1981.

"Rate of Return, Income Statement, and Rate Base," Sangre de Cristo Electric Association, Inc., Investigation & Suspension Docket No. 1520, September 1981.

"Valuation of Assets and Acquisition Adjustment," Rico Telephone Company, Transfer Application No. 34236, January 1982.

"Rate of Return," Holy Cross Electric Association, Inc., Rate Case No. 6036, January 1982.

“Gas Cost Adjustment Tariff,” Public Service Company of Colorado, Case No. 5721, February 1982.

“Rate of Return,” Union Rural Electric Association, Inc., Rate Case No. 6061, March 1982.

“Gas Cost Adjustment Tariff,” Peoples Natural Gas a Division of Northern Natural Gas Company,” Case No. 5721, April 1982.

Income Statement, Capital Expenditures, Refunds Received from Colorado Interstate Gas Company, and Operating Ratio,” City of Fort Morgan, Investigation & Suspension Docket No. 1555, April 1982.

“Rate Base,” Peoples Natural Gas Company, Investigation & Suspension Docket No. 1544, May 1982. “Rate Base,” Mountain Bell, Investigation & Suspension Docket No.1575, November 1982.

“Identification and Valuation of Assets Transferred by Mountain Bell to American Bell,” Transfer Application No. 35033, December 1982.

“True-Up Audit on the Specific Identification and Valuation of Assets Transferred by Mountain Bell to American Bell,” Transfer Application No. 35033, July 1983.

“Income Statement (Electric, Gas and Steam)” Public Service of Colorado, Investigation & Suspension Docket No. 1640, March 1984.

“Accounting Issues in the Transfer of Mountain Bell’s Directory Assets to U S West Direct, a Non-Regulated Entity,” Case No. 84CV8902, District Court, City and County of Denver. September 1984.

“The Primary Aspects of Mountain Bell’s Transfer of Directory Publications to U S West Direct,” Application No. 36247, May 1984.

“The Impact of the Rate of Return of Mountain Bell’s Transfer of Directory Publications to U S West Direct,” Case No. 6360 and Case No. 6361, December 1985.

“Rate of Return and Quality of Service,” Union Telephone, Investigation & Suspension Docket No. 1699, April 1986.

“The Impact of the Transfer of Directory Publications from Mountain Bell to U S West Direct on Mountain Bell’s Revenue Requirement,” Investigation & Suspension Docket No. 1700, April 1986.

“Application of Union Telephone Company for Authority to Discontinue Service at Lodore, Colorado,” Abandonment Application No. 36949, November 1986.

“Affidavit of William A. Steele,” District Court, City and County of Denver, Civil Action No.85CV11531: Public Utilities Commission vs. Union Telephone Company, March 1987.

“Access Charges of Various Colorado Independent Telephone Companies,” Case No. 6607, June 1987.

“Rate of Return, Income Statement, Rate Base, Rate Design,” Union Telephone Company, Application No. 38333, February 1988.

“Role of Independent Telephone Companies in U S West Communications Local Calling Area Plan (LCAP),” Investigation and Suspension Docket No. 1766, November 1988.

“Management Audit of Delta County Tele-Comm. Inc.” Investigation and Suspension Docket No. 1760, July 1989.

“Financial Audit and Management Review of Colorado-Ute Electric Association, Inc.,” In the Matter of the Review and Monitoring of the Financial and Operating Status of Colorado-Ute Electric Association Inc., Montrose, Colorado, Docket No. 89M-230E, October 11, 1989.

“Affidavit of William A. Steele on behalf of the Debtor in Possession,” United States District Court in Bankruptcy for the District of Colorado, In re Colorado-Ute Electric Association, Inc., Case No. 90 B 03761 C (Voluntary Petition) Chapter 11, July 19, 1990.

“Affidavit of William A. Steele on behalf of Intermountain Rural Electric Association Inc.,” United States District Court in Bankruptcy for the District of Colorado, In re Colorado-Ute Electric Association, Inc., Case No. 90 B 03761 C (Voluntary Petition) Chapter 11, July 19, 1990.

“Accounting For Directory Publishing Revenues” U S West Communications, Inc. Rate Case, Docket 90S-544T, February 1991.

“Feasibility Study of PTI for Acquiring U S West Exchanges” In the Matter of The Joint Application of U S West Communications, Inc. and Eagle Communications, Inc., D/B/A PTI Communications, Inc., For Authority to Transfer Certain Telephone Exchanges, Operations and Business of U S West Communications, Inc., To Eagle Telecommunications, Inc., D/B/A PTI Communications, Inc., A Wholly Owned Subsidiary of Pacific Telecom, Inc.” Docket 93A-440T, January 21, 1994.

“In The Matter of the Joint Applications of US West Communications, Inc. And South Park Telephone Company, to Transfer Service Territory.” Application No. 95-582T, April 27, 1996.

Amendment to the Colorado Public Utilities Commission’s “Rules of Practice and Procedure”, April 1996.

“In The Matter of the Application of AT&T Communications of the Mountain States, Inc. To Amend Its Certificate of Public Convenience and Necessity to Provide Local Exchange Telecommunications Service.” Docket No. 96A-080T, July 26, 1996.

“In The Matter of the Notice by AT&T Communications of the Mountain States, Inc. of Its Intent to Exercise Operating Authority. “Docket No. 96A-081T, July 26, 1996.

“C. Addinton, Frank Burton, Amos Clark, Patty Clark, Anthony Flasco, Robert Genler, Wayne Latham Complaints Versus U S West Communications, Inc. and Condominium Management Company”. Docket No. 96F-230T, April 23, 1997.

“95H-1335 Rate Cap”, The Investigation and Suspension of Tariff Sheets Filed by Dubois Telephone Exchange, Inc. With Advice Letter No. 4” Docket No. 97S-143T, June 24, 1997.

“Operational Support Systems”, In the Matter Of Application of MCImetro Access Transmission Services, Inc., For A Certificate To Provide Local Exchange Service, Notice Of Intention To Exercise Operating Authority and Certificate Of Public Convenience And Necessity. July 24, 1997.

Investigation and Suspension of Tariff Sheets Filed by Rico Telephone Company, Docket No.96S-201T, October 27, 1997. “Determining Appropriate Sales Price of Facilities”

“Modification to an Exchange Area Boundary vs. Expansion of Local Calling Area.” Investigation and Suspension of Tariff Sheets Filed by U S West Communications, Inc. With Advice Letter No. 2680. Docket No. 97S-563T, November 26, 1997.

In the Matter of the Application of US WEST Communications Inc., For Specific Forms of Price Regulation. Answer Testimony filed on April 16, 1998.

In the Matter of the Application of US WEST Communications Inc., For Specific Forms of Price Regulation. Cross Answer Testimony filed on April 26, 1998.

In the Matter of the Application of US WEST Communications Inc., For Specific Forms of Price Regulation. Rebuttal Testimony filed on May 27, 1998.

In the Matter of the Application of US WEST Communications Inc., For Specific Forms of Price Regulation. Direct Testimony filed on January 8, 1999.

In the Matter of the Application of Qwest Communications Corporation, LCI International Telecom Corp., USLD Communications, Inc. and U S West Communications, Inc. for Approval of the Merger of Their Parent Corporations, Qwest Communications International, Inc. and U S West Inc. Testimony filed on November 22, 1999 "Concerning the Feasibility Studies".

In the Matter of Investigation and Suspension of Tariff Sheets Filed by Delta County Tel-Com, Inc., with Advice Letter No. 90. Testimony Filed on April 6, 2000 "Concerning Product Management Expense."

In the Matter of the Joint Application of U S West Communications, Inc. and Citizens Telecommunications Company of Colorado Regarding the Sale and Transfer of Certain Telephone Exchanges. Testimony presented on July 7, 2000 "In Support of the Stipulation to Approve the Sale and the Price Plan for Citizens."

In the Matter of Investigation and Suspension of Tariff Sheets Filed by Delta County Tel-Com, Inc., with Advice Letter No. 90. Testimony presented on September 21, 2000 "In Support of the Stipulation."

The Investigation and Suspension of Tariff Sheets by Agate Mutual Telephone Cooperative with Advice Letter No. 33. Testimony presented on December 17, 2001 on Cost of Capital, Income Statement, Rate Base, High-Cost Fund Support and Rate Design.

In The Matter Of The Provision Of Regulated Telecommunications Services By Mile High Telecom Partners, LLP Without The Requisite Certificate Of Public Convenience And Necessity Issued By The Commission And Without An Effective Tariff On File With The Commission Docket No. 02C-082T. Testimony presented in support of the Stipulation on May 10, 2002.

In The Matter of The Provision of Regulated Telecommunications Services by Mile High Telecom Partners, LLP Without the Requisite Certificate of Public Convenience and Necessity Issued By The Commission And Without An Effective Tariff On File With The Commission Docket No. 02C-082T. Testimony presented in the re-opening of the Docket on March 12, 2003.

BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON  
UE 399

SMALL BUSINESS UTILITY ADVOCATES

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UE 374 OREGON SCHEDULE 23 RATE DESIGN ALTERNATIVES REPORT





**Rocky Mountain Power | Pacific Power**

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# OREGON SCHEDULE 23 RATE DESIGN ALTERNATIVES REPORT

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September 2021

## Background

On February 14, 2020, PacifiCorp filed its Oregon general rate case (Docket No. UE 374). On August 17, 2020, all parties, except Sierra Club, filed a partial settlement stipulation with supporting testimony resolving rate spread and rate design issue in the rate case. The Commission approved the partial settlement stipulation in Order No. 20-473. This report is responsive to an obligation in paragraph 21 of the stipulation that “(b)y October 2021, the Company will consult with [Small Business Utility Advocates] SBUA prior to providing an informational report on data obtained regarding Schedule 23 customers and provide the Stipulating Parties an informational report exploring potential alternate rate design changes for Schedule 23 customers. The Company commits to review the data and evaluate rate design and pricing options that may be proposed in a future general rate case.” Specifically, this report examines two viable rate design alternatives for Schedule 23 customers. One is for a re-design of the existing portfolio time of use option for Schedule 23 with a cost-based design that has a moderate price signal. The other is for a time of use option that has a heightened price signal which could potentially drive greater behavioral changes.

## Time of Use Re-Design

The Portfolio Time of Use option on Schedule 210 has been available for residential and small non-residential consumers for many years. On Schedule 210, non-residential participants pay surcharges for kilowatt-hour (kWh) consumption during on-peak periods and receive credits for kWh consumption during off-peak times which are applied to their regular bill. Table 1 below shows the currently effective time of use charges and credits for Schedule 23 small non-residential customers:

**Table 1. Schedule 210 Portfolio Time of Use Surcharges and Credits**

Schedule		Winter	Summer
<b>23</b>	On-Peak kWh, per kWh	4.365 ¢	9.350 ¢
	Off-Peak kWh, per kWh	(1.438)¢	(1.438)¢

During the winter months of November 1 through March 31, the on-peak period is 6:00 a.m. to 10:00 a.m. and 5:00 p.m. to 8:00 p.m., Monday through Friday excluding holidays. During the summer months of April 1 through October 31, the on-peak period is 4:00 p.m. to 8:00 p.m., Monday through Friday excluding holidays.

This option could be modified to better align with more recent information on the value of energy at different time periods and also to simplify the periods.

Table 2 below shows the average price from the Energy Imbalance Market (EIM) for the PACW, PACE, and Malin nodes for the 36 month period ending June 30, 2021.

**Table 2. Average EIM Prices for 36 Months Ended**

	Hour Ending																							
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	16.27	15.73	15.75	16.07	16.79	18.32	20.30	20.62	17.45	16.24	15.08	14.08	13.35	12.88	13.99	17.03	21.12	22.63	21.83	20.74	19.98	18.42	17.85	16.71
2	25.28	23.44	23.32	24.00	27.28	32.98	36.07	32.39	22.95	20.83	18.46	16.86	15.61	14.12	14.95	18.17	27.80	44.13	53.28	44.00	36.28	31.83	29.27	26.20
3	17.58	17.00	16.35	16.92	18.89	21.51	23.73	22.57	18.50	17.48	14.04	12.90	13.02	11.44	11.34	12.57	14.36	18.29	22.85	26.35	23.96	21.35	20.11	17.83
4	15.53	14.66	14.03	14.47	16.05	17.68	18.88	16.97	15.39	13.49	13.42	12.78	12.36	11.90	11.93	12.67	13.30	16.04	20.80	28.88	27.29	20.75	18.68	16.79
5	15.01	13.37	12.69	12.55	13.67	15.79	14.49	11.39	10.67	10.83	10.49	10.22	12.81	11.76	12.07	12.74	13.28	16.00	19.90	21.83	21.44	18.86	17.51	16.47
6	15.32	13.90	13.14	13.07	13.54	14.52	13.28	12.09	11.88	12.30	13.18	14.67	15.60	16.95	17.91	19.17	20.18	21.06	26.07	29.90	25.64	20.95	18.22	15.76
7	14.40	13.60	13.13	12.70	12.97	13.58	12.29	12.15	11.58	12.36	14.16	14.83	15.29	16.96	18.61	19.29	17.94	18.46	25.44	28.74	20.20	17.31	16.05	14.47
8	17.17	16.04	15.18	14.57	15.03	16.34	15.28	14.28	13.55	14.62	15.73	17.14	18.56	23.73	27.02	33.82	32.83	42.06	54.36	47.78	26.88	21.34	19.46	17.57
9	15.66	15.16	14.63	14.38	15.06	16.71	17.09	16.02	14.71	14.78	14.53	15.17	15.59	16.90	17.70	19.06	19.49	25.32	31.90	28.92	21.03	18.05	17.63	16.34
10	17.50	16.94	16.49	16.66	17.48	19.92	21.54	21.38	19.93	19.47	18.58	17.94	18.88	17.92	18.01	17.74	18.26	30.24	39.00	26.24	21.46	19.43	19.90	17.55
11	19.12	18.62	18.52	19.31	20.97	23.83	25.13	22.87	20.60	19.02	18.65	18.50	17.95	17.84	18.61	24.12	30.44	35.36	27.59	25.72	24.22	22.01	21.90	19.76
12	20.17	19.59	19.34	19.69	21.30	23.82	25.15	24.91	22.85	21.01	20.01	18.84	17.79	17.40	18.26	22.10	29.13	31.52	28.61	27.15	25.58	23.25	22.81	20.71
Rank	14	17	19	18	13	9	7	11	16	20	23	24	22	21	15	10	5	3	1	2	4	6	8	12
Average	17.42	16.50	16.05	16.20	17.42	19.58	20.27	18.97	16.67	16.04	15.53	15.33	15.57	15.82	16.70	19.04	21.51	26.76	30.97	29.69	24.50	21.13	19.95	18.01

Table 2 indicates that the top four highest periods of EIM pricing from these data occur between 5pm and 9pm. This period is consistent with the newly approved Schedule 6 residential time of use pilot. To develop a revised time of use option for Schedule 23, hourly loads are needed from this group of customers. Table 3 below shows the hourly load profile for all Schedule 23 customers for which the Company has advanced metering infrastructure (AMI) data:

**Table 3. Hourly Average Loads (MW) from Schedule 23 Customers from 12 Months Ended June 2021**

	Hour Ended																							
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	138	137	137	137	140	147	159	176	188	195	200	201	197	193	190	187	183	181	172	164	157	150	144	140
2	143	143	142	143	146	154	167	183	196	205	209	209	205	201	198	194	188	181	178	169	162	156	150	146
3	135	135	132	136	140	148	163	178	193	201	204	203	198	194	191	187	180	169	161	157	155	148	142	138
4	123	122	122	123	125	133	144	157	174	183	188	189	187	186	186	183	178	166	154	145	145	139	132	126
5	118	116	115	115	117	122	126	140	157	168	177	181	182	184	185	184	180	169	157	147	141	138	130	123
6	103	121	118	116	117	120	125	143	164	180	194	203	208	213	217	217	213	199	184	171	160	154	144	134
7	118	113	110	108	108	111	114	128	148	165	179	190	197	203	208	210	207	194	177	164	152	146	135	125
8	120	115	112	110	110	114	120	130	149	165	180	192	199	206	212	214	211	198	181	166	157	149	136	126
9	111	108	107	105	106	110	119	129	144	156	168	176	181	186	191	192	188	175	159	150	143	134	124	116
10	110	109	108	108	110	115	126	141	153	162	168	171	170	171	172	171	166	154	145	141	134	127	119	114
11	129	128	128	129	132	138	151	164	175	183	188	188	185	182	180	177	175	173	162	155	148	142	136	132
12	138	137	137	138	141	148	161	177	189	197	201	201	196	193	190	187	185	183	171	163	156	150	144	140

Using the usage in the on-peak and off-peak hours of the Schedule 23 class, new on-peak surcharges and off-peak credits can be derived that are revenue neutral for the class in its entirety. Two options are discussed below.

## Moderate Time of Use Option

For the first option, the off-peak credit was set to be the same as the difference in EIM value between the on-peak and off-peak periods which is about 1¢ per kWh. An on-peak surcharge was then set to achieve revenue neutrality with the Schedule 23 class. See below for the surcharge and credits of this option:

**Table 4. Moderate Time of Use Surcharge and Credit**

Schedule 23	Price
On-Peak kWh, per kWh	4.940 ¢
Off-Peak kWh, per kWh	(1.029)¢

Applying these to the net average rate for Schedule 23 of about 11¢ per kWh yields a net rate of about 10¢ per kWh for off-peak usage and 16¢ per kWh for on-peak usage or about a 1.60 times differential. If a typical Schedule 23 customer were able to shift half of its on-peak usage to off-peak times on this option, it could save \$5.85 out of a total bill of \$126 or about 4.6 percent.

## Impactful Time of Use Option

To achieve a more meaningful price signal, albeit one that may provide benefits greater than those justified by cost, a more pronounced time of use differential could be used. Using the same assumptions that were used to develop the first option, more impactful time of use prices were calculated that have a 4.0 differential in overall price. See below for the surcharge and credits of this option:

**Table 4. Impactful Time of Use Surcharge and Credit**

Schedule 23	Price
On-Peak kWh, per kWh	18.125 ¢
Off-Peak kWh, per kWh	(3.777)¢

Applying these to the net average rate for Schedule 23 of about 11¢ per kWh yields a net rate of about 7¢ per kWh for off-peak usage and 29¢ per kWh for on-peak usage. If a typical Schedule 23 customer were able to shift half of its on-peak usage to off-peak times on this option, it could save \$21.46 out of a total bill of \$126 or about 17.0 percent.

## Conclusion

The Schedule 23 portfolio time of use option could be re-designed to use time periods that are simpler and better reflect the present view of the value of energy at different times. The

differential between on- and off-peak price for such a re-designed option could be set at different levels. There are pros and cons to either a smaller differential or a more expansive differential.