

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

<b>PENNSYLVANIA PUBLIC UTILITY COMMISSION</b>	:	
	:	
	:	
v.	:	<b>Docket No. R-2020-3022134</b>
	:	
<b>PIKE COUNTY LIGHT &amp; POWER COMPANY (Gas Division)</b>	:	
	:	

Rebuttal Testimony and Exhibit of

**ROBERT D. KNECHT**

On Behalf of the

**Pennsylvania Office of Small Business Advocate**

Topics:

**Cost Allocation  
Revenue Allocation**

Date Served: February 22, 2021

Date Submitted for the Record: \_\_\_\_\_

## REBUTTAL TESTIMONY OF ROBERT D. KNECHT

1 **Q. Mr. Knecht, please state your name and briefly describe your qualifications.**

2 A. My name is Robert D. Knecht. I submitted direct testimony and associated exhibits earlier  
3 in this proceeding and my qualifications were detailed therein.

4 **Q. Please describe the purpose of this testimony.**

5 A. This testimony first clarifies and corrects my direct testimony, with respect to (a) cost  
6 allocation errors acknowledged by the Company and corrected in my exhibits, but not  
7 explained in the text of my testimony, and (b) an inadvertent error in calculating total SC1  
8 Residential costs.

9 Second, this testimony addresses the cost allocation and revenue allocation  
10 recommendations of Dr. Karl Richard Pavlovic representing the Pennsylvania Office of  
11 Consumer Advocate (“OCA”) and the Commission’s Bureau of Investigation and  
12 Enforcement (“I&E”) Witness Eryan A. Sakaya.

13 **Q. Please address the clarification to your direct testimony.**

14 A. In response to OSBA-I-16 and OSBA-I-17, the Company acknowledged errors in its gas  
15 class cost of service allocation study (“GCOSS”), regarding the allocation of Account 385  
16 regulator costs and the functionalization of depreciation costs. Regarding the former, the  
17 Company indicates that the house regulator component of Account 385 should have been  
18 assigned only to the SC1 Residential class, and the industrial meters and regulators portion  
19 of that account should have been assigned only to the SC2 non-residential class. Regarding  
20 the latter, the Company acknowledges that depreciation expenses were mis-categorized to  
21 Account 374 rather than 380. In my alternative version of the Company’s GCOSS  
22 provided in RDK WP2G, I corrected both errors and flagged them in shaded green with  
23 the other modifications that I made to the Company’s GCOSS. These changes resulted in  
24 a material shift in costs away from the Residential class and to the Commercial class. The  
25 issue regarding these corrections is that I did not explicitly include a description of them in  
26 the text of my direct testimony.

1 Because these are errors acknowledged by the Company, because this change serves to  
 2 increase costs to small business customers, and because this issue was highlighted in my  
 3 electronic workpapers circulated with my direct testimony, I do not believe that my  
 4 oversight has disadvantaged any party. Nevertheless, I apologize for the oversight and any  
 5 associated confusion.

6 **Q. Please explain the error in your direct testimony.**

7 A. When correcting the Company’s treatment of house regulators in my alternative GCOSS,  
 8 my simulation reversed the numerical sign for the costs assigned to the total SC1 class.  
 9 Thus, while the sub-components for costs were accurate, the total SC1 values were not.  
 10 The corrected electronic workpaper is provided with this testimony. Correcting this error  
 11 does not affect the overall class rate of return, but it has a modest impact on overall cost  
 12 allocation and revenue allocation, as shown in Table IEc-R1 below.<sup>1</sup> I regret any confusion  
 13 caused by this error.

<b>Table IEc-R1</b>				
<b>Impact of Corrections to RDK WP2G</b>				
	<b>SC1</b>		<b>SC2</b>	
	<b>Original</b>	<b>Corrected</b>	<b>Original</b>	<b>Corrected</b>
Class RoR Present Rates	4.49%	4.49%	7.46%	7.46%
Cost-Based Rate Increase	\$234,487	\$237,423	\$23,532	\$23,551
Increase (Percent)	38.0%	38.5%	17.6%	17.6%
<b>Sources: RDK WP2G, RDK WP2G Corrected</b>				

14 **Q. Please describe the cost allocation recommendations of Dr. Pavlovic and Witness**  
 15 **Sakaya.**

16 A. Both witnesses accept the Company’s GCOSS methodology except with respect to the  
 17 allocation of mains costs (Account 376). Both witnesses reject the Company’s proposal

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<sup>1</sup> The error in my direct testimony is shown in Table IEc-4, where both the “increase to cost-based rates” and the “proposed increase” values do not sum to the reported total.

1 to classify mains costs into customer-related and demand-related components using the  
2 minimum system method.

3 Witness Sakaya proposes that all mains costs be allocated using a 50/50 peak-and-average  
4 (“P&A”) methodology, in which mains costs are allocated half based on design day peak  
5 demand and half based on average demand (or its arithmetic equivalent, annual  
6 throughput).

7 Dr. Pavlovic recommends that all mains costs be allocated based on design day demand.

8 **Q. In your direct testimony, you developed an alternative GCOSS simulation using a**  
9 **50/50 weighted average-and-excess (“A&E”) approach, based on Commission**  
10 **precedent for natural gas distribution companies (“NGDCs”). Has this precedent**  
11 **been updated?**

12 A. In part. In its Order Entered February 19, 2021 at Docket No. R-2020-3018835 involving  
13 Columbia Gas of Pennsylvania, the Commission re-affirmed its policy that mains cost  
14 allocation for NGDCs should not include a customer component for costs. It similarly re-  
15 affirmed its policy that mains costs are causally related to both average annual demand and  
16 peak demand, and it approved the use of a 50/50-weighted peak-and-average (“P&A”)  
17 method for allocating gas mains costs, as advocated by OCA.<sup>2</sup> If applied to PCL&P, this  
18 decision rejects the Company’s proposed cost allocation method.

19 However, in making this decision, the Commission also recognized that the A&E method  
20 it had approved in its two most recent decisions regarding NGDC cost allocation was “. . .  
21 of no significance here in that none of the Parties have submitted this type of methodology  
22 for our consideration.”<sup>3</sup> As such, the Commission has not expressly rejected the method it  
23 had most recently approved, because that method was not presented as an option in the  
24 Columbia proceeding.

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<sup>2</sup> “Opinion and Order,” Pennsylvania Public Utility Commission, Docket No. R-2020-3018835, Order entered February 19, 2021, pages 187-218.

<sup>3</sup> *Id.*, at 214.

1 In addition, the Commission determined that its precedent for including a customer  
2 component of costs for electric distribution companies (“EDCs”) was not relevant to that  
3 decision, citing to OCA’s argument that “. . . cost causation for EDCs and NGDCs are  
4 different.”<sup>4</sup>

5 **Q. Have you modified your alternative GCOSS analysis to reflect this decision?**

6 A. No. First, as noted above, this decision does not explicitly reject the precedent upon which  
7 I relied, since the A&E option was not considered. Second, insufficient time was available  
8 for me to make the change. If necessary, I will develop a revised version of my alternative  
9 GCOSS for surrebuttal testimony, consistent with the Commission’s decision.

10 **Q. Please address Witness Sakaya’s cost allocation and revenue allocation analysis in  
11 more detail.**

12 A. Witness Sakaya begins not with the filed historical test year (“HTY”) GCOSS relied upon  
13 by the Company, but with what is described as a future test year (“FTY”) GCOSS (provided  
14 in response to I&E-RS-12-D). That GCOSS does update the cost values to reflect the FTY  
15 cost claim, but it does not update any of the allocation factors. In effect, the I&E GCOSS  
16 is a cost allocation study with FTY costs being allocated using HTY allocation factors.

17 Witness Sakaya then calculates the impact of replacing the Company’s mains cost  
18 classification method with a 50/50 P&A approach, for the mains gross plant, mains  
19 accumulated depreciation, and mains depreciation expense accounts. He applies these  
20 adjustments to the balance of the Company’s “FTY” GCOSS and recalculates the class  
21 rates of return at the Company’s proposed rates.<sup>5</sup>

22 From that analysis, Witness Sakaya concludes that the Company’s revenue allocation  
23 proposal is not unreasonable.

24 **Q. Do you agree with Witness Sakaya’s approach?**

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<sup>4</sup> *Id.*, at 214-25.

<sup>5</sup> In so doing, Witness Sakaya uses a simplified across-the-board income tax cost, rather than simulating the Company’s more complicated model.

1 A. For both theoretical and practical reasons, I do not. Witness Sakaya’s approach has a  
2 number of disadvantages.

3 First, by rejecting the classification of mains costs into customer and demand components,  
4 Witness Sakaya rejects the idea that it is less costly per unit of demand to serve larger and  
5 more geographically concentrated customers than smaller more dispersed customers.  
6 Moreover, the P&A allocation factor relies substantially on average demand, which is not  
7 causally related to mains costs. Mains must be sized to meet peak demand and interconnect  
8 customers, and the costs are not affected by whether the main is used at a 25 percent  
9 utilization rate or a 95 percent utilization rate. Nevertheless, my disagreement in this  
10 respect is presumably moot, as the Commission has reaffirmed its support for a method  
11 that rejects the idea of economies of scale for serving larger customers and relies on the  
12 principle that mains costs are causally related to average demands.<sup>6</sup>

13 After that, Witness Sakaya’s approach is generally biased in favor of Commercial  
14 customers. First, in making the adjustment to a P&A allocation factor, Witness Sakaya  
15 adjusts only the direct plant-related costs. However, a variety of other costs in the  
16 Company’s GCOSS model are affected by how mains costs are allocated, including plant  
17 accounts 374 and 378, certain adjustments to rate base, distribution operating costs, some  
18 distribution maintenance costs (Account 887), and some A&G costs. Witness Sakaya’s  
19 approach does not recognize these impacts. Second, Witness Sakaya does not adjust for  
20 the errors acknowledged by the Company addressed above. Third, Witness Sakaya does  
21 not incorporate the other changes that I recommend in my alternative GCOSS.

22 For those reasons, I conclude that my alternative GCOSS is a more accurate evaluation of  
23 allocated costs within the context of Commission precedent regarding mains cost  
24 classification and allocation. Of course, the differences in my alternative GCOSS from  
25 Witness Sakaya’s analysis also explains why my proposed revenue allocation under my

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<sup>6</sup> One hopes that NGDCs will not actually start designing their distribution systems to meet load that is halfway between average and peak demand.

1 alternative GCOSS assigns more costs to Commercial customers than Witness Sakaya  
2 proposes.

3 **Q. Please address Dr. Pavlovic's cost allocation and revenue allocation analysis in more**  
4 **detail.**

5 A. Dr. Pavlovic did not provide his electronic workpapers nor does his filed testimony contain  
6 any detailed tabular output from his cost allocation analysis. However, using my replicated  
7 version of the Company's GCOSS, I simply adjusted the mains classification factor to  
8 being 100 percent demand, and I was able to replicate the summary results in Dr. Pavlovic's  
9 summary Table 1. This electronic model is provided in electronic format with this  
10 testimony as RDK WP1-RG. From that analysis, Dr. Pavlovic concludes that significantly  
11 more of the rate increase should be recovered from the Commercial class than that proposed  
12 by the Company. He then offers a revenue allocation proposal at a significantly reduced  
13 revenue requirement. Dr. Pavlovic indicates that to develop this revenue allocation  
14 proposal, he relies on the same method used by the Company, but he provides neither tables  
15 nor workpapers supporting his calculations.<sup>7</sup>

16 **Q. Do you agree with Dr. Pavlovic's cost allocation method?**

17 A. No. I have the same concerns regarding Dr. Pavlovic's method as those listed above  
18 regarding Witness Sakaya's approach, except that I agree at a theoretical level with Dr.  
19 Pavlovic that all demand-related mains costs should be allocated using a design day peak  
20 allocation factor. The Commission, however, does not.

21 **Q. Is Dr. Pavlovic's revenue allocation proposal consistent with his recommended**  
22 **GCOSS?**

23 A. It does not appear to be, although it is difficult to determine because Dr. Pavlovic provides  
24 a revenue allocation proposal only at a substantially reduced revenue requirement. To  
25 evaluate his proposal, I began with his revenue allocation proposal and scaled it up to the  
26 full revenue increase required by the Company. Since that revenue requirement includes  
27 both the effect of changes in billing determinants between the HTY and the FTY, I then

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<sup>7</sup> As I indicated in my direct testimony, I am also unable to make any sense of the Company's revenue allocation methodology.

backed out the impact of the billing determinants, leaving Dr. Pavlovic’s implied net full requirements revenue allocation.<sup>8</sup> I then compared this to the cost-based increase from his GCOSS. These calculations are shown in Table IEc-R2 below. As shown, Dr. Pavlovic proposes an increase for the SC2 Commercial class that is nearly double the cost-based increase implied by the GCOSS method that he favors.

<b>Table IEc-R2</b>			
<b>OCA Revenue Allocation Proposal</b>			
	<b>SC1</b>	<b>SC2</b>	<b>Total</b>
OCA Proposal (Table 2)	\$87,380	\$9,921	\$97,301
Scaled Up to Full Increase*	\$266,331	\$30,239	\$296,570
Less Billing Det. Effect**	(\$29,131)	(\$6,465)	(\$35,595)
<b>Implied OCA Net Rev. Increase</b>	<b>\$237,200</b>	<b>\$23,774</b>	<b>\$260,974</b>
<b>OCA GCOSS Cost Shortfall</b>	<b>\$248,768</b>	<b>\$12,206</b>	<b>\$260,974</b>
*Proportional scaleup.			
** See proof of revenue analysis in RDK WP1-RG.			
<b>Sources: RDK WP1-RG, OCA Statement No. 2</b>			

Thus, if the Commission accepts the Dr. Pavlovic’s GCOSS methodology, the rate increase for the SC2 class should be approximately half that proposed by Dr. Pavlovic.

However, as I indicated earlier, my other adjustments to my alternative GCOSS methodology are generally unfavorable to the SC2 Commercial class. Based on my alternative GCOSS, my cost-based revenue allocation is virtually identical to that offered by Dr. Pavlovic, the values are compared on a comparable basis.

**Q. At the end of the day, what are the revenue allocation proposals of the parties?**

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<sup>8</sup> Both the Company and Dr. Pavlovic use the confusing approach of defining the rate increase as the difference between proposed rates at FTY billing determinants less current rates at HTY billing determinants. Some of that increase is therefore related to growth in the billing determinants between the HTY and FTY, and are not a result of increased tariff charges. Neither witness Sakaya nor I follow this approach.



1 A. Table IEc-R3 below provides my comparison, at this time. In making this comparison, I  
 2 have generally relied on the FTY revenue increase at FTY billing determinants for tariff  
 3 rates only.

<b>Table IEc-R3</b>			
<b>Revenue Allocation Comparison (\$000)</b>			
	<b>SC1</b>	<b>SC2</b>	<b>Total</b>
<b>Customer-Demand GCOSSs</b>			
PCL&P Filed (Exh. G8)	\$253.7	\$6.3	\$260.1
RDK Customer-Demand	\$253.7	\$6.3	\$260.1
<b>A&amp;E and P&amp;A GCOSSs</b>			
I&E Sakaya (E3S5p1)	\$254.9	\$6.3	\$260.3
OCA GCOSS* (RDK WP1-RG)	\$248.8	\$12.2	\$261.0
OCA Adjusted** (Table IEc-R1)	\$237.2	\$23.8	\$261.0
RDK Alt. GCOSS (Table IEc-R1)	\$237.4	\$23.5	\$260.9
* Reflects the cost-based increase under OCA's proposed GCOSS.			
** Adjusted for presentation purposes to reflect the full FTY proposed increase and exclude effects of changes in billing determinants.			
Sources: RDK WP1G, RDK WP2G Corrected, RDK WP1-RG, OCA Statement No. 2, I&E Statement No. 3			

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

5 A. Yes, it does.

**EXHIBIT IEc-R1**

**RDK REBUTTAL ELECTRONIC WORKPAPERS**

RDK WP2G Alternative GCOSS Corrected

RDK WP1-RG OCA Proposed GCOSS for PCL&P

\*\*\*Electronic Workpapers will be emailed as separate attachments simultaneous to Rebuttal  
Testimony\*\*\*

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**Docket No. R-2020-3022134**

**VERIFICATION**

I, Robert D. Knecht, hereby state that the facts set forth in my Rebuttal Testimony labelled OSBA Statement No. 1-R and associated Exhibit IEC-R1 are true and correct to the best of my knowledge, information, and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 19 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).



Date: February 22, 2021

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Robert D. Knecht