**FILED** December 23, 2020 INDIANA UTILITY **REGULATORY COMMISSION** 

### **STATE OF INDIANA**

#### INDIANA UTILITY REGULATORY COMMISSION

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PETITION OF THE CITY OF CRAWFORDSVILLE, ) INDIANA, BY AND THROUGH ITS MUNICIPAL ) ELECTRIC UTILITY, **CRAWFORDSVILLE** ) **ELECTRIC LIGHT AND POWER, FOR APPROVAL OF A NEW SCHEDULE OF RATES AND CHARGES** ) FOR ELECTRIC SERVICE AND FOR APPROVAL ) TO MODIFY ITS ENERGY COST ADJUSTMENT ) **PROCEDURES** 

**CAUSE NO. 45420** 

### **INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR**

### **PUBLIC'S EXHBIT NO. 6**

### **TESTIMONY OF OUCC WITNESS SERGIO HUNT**

December 23, 2020

Respectfully submitted,

Scott C. Franson Attorney No. 27839-49 Deputy Consumer Counselor

### TESTIMONY OF OUCC WITNESS SERGIO G. HUNT CAUSE NO. 45420 CRAWFORDSVILLE ELECTRIC LIGHT AND POWER

### I. INTRODUCTION

1	Q:	Please state your name and business address.
2	A:	My name is Sergio G. Hunt, and my business address is 115 West Washington St.,
3		Suite 1500 South, Indianapolis, Indiana 46204.
4	Q:	By whom are you employed and in what capacity?
5	A:	I am employed by the Indiana Office of Utility Consumer Counselor ("OUCC") as
6		an economist, with the official job title of Utility Analyst, in the Electric Division.
7		A summary of my educational and professional background, as well as my duties
8		and responsibilities at the OUCC, can be found in Appendix A.
9	Q:	What is the purpose of your testimony?
10	A:	I explain my analysis of the cost of service study ("COSS") NewGen Strategies and
11		Solutions, LLC ("NewGen") generated and Crawfordsville Electric Light and
12		Power ("CEL&P" or "Petitioner") used to develop its rate request in this Cause. I
13		also explain my analysis of CEL&P's proposed rate design. Specifically, I address
14		CEL&P's: 1) discrepancies in COSS data versus rate design data: 2) COSS
15		corrections; and 3) demand charges and demand rachets proposals. I also address
16		weather normalization. Ultimately, I recommend the Commission require CEL&P
17		recover its cost of serving the General Power ("GP") rate class through energy rates
18		and customer charges only and deny CEL&P's proposal to implement demand
19		charges and demand ratchets for its GP rate class. The OUCC also recommends the

1		Commission deny CEL&P's proposal to impose demand ratchets on the Primary
2		Power rate class.
3 4	Q:	Please describe the examination and analysis you conducted to prepare your testimony.
5	A:	I reviewed CEL&P's petition, direct testimony and discovery responses related to
6		the topics I cover in my testimony. I also participated in teleconferences <sup>1</sup> with
7		CEL&P and NewGen personnel.
8 9	Q:	To the extent you do not address a specific item or adjustment, should it be construed to mean you agree with CEL&P's proposal?
10	A:	No. Excluding any specific adjustments or amounts CEL&P proposes does not
11		indicate my approval of those adjustments or amounts. Rather, the scope of my
12		testimony is limited to the specific items addressed herein.
		II. <u>CEL&amp;P COST OF SERVICE STUDY AND RATE DESIGN</u>
13	Q:	How was CEL&P's COSS conducted in this Cause?
14	A:	Based on my review, NewGen appears to have conducted CEL&P's COSS in a
15		similar process as the one outlined in the National Association of Regulatory Utility
16		Commissioners' ("NARUC") "Electric Utility Cost Allocation Manual". As
17		explained in more detail in Petitioner's Exhibit No. 4, the Direct Testimony of Joe
18		Mancinelli, NewGen functionalized, sub-functionalized, and classified all costs in

CEL&P's revenue requirement. Costs associated with customer and energy

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<sup>&</sup>lt;sup>1</sup> Teleconferences held on October 19, 2020 and November 5, 2020.

classifications were directly measured based on the number of billed customers in 2 each class and based on each class's net energy for load.

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3 To calculate demand contributions of each class, NewGen used hourly load data collected by CEL&P's Advanced Metering Infrastructure ("AMI") meters for 4 5 each rate class. CEL&P does not have 100% AMI meter deployment. However, I 6 found no issue with the AMI meter distribution and sample size for purposes of 7 calculating demand contributions for each class during the test year used in this 8 COSS. AMI meters provide hourly load data, and this data was used to calculate 9 each of the rate classes' sample Sum of Max Demand ("SMD"), NCP, CP, and 10 IMPA's CP. IMPA's CP calculation is important for CEL&P's COSS because 11 IMPA's billing demand is determined by the amount of CEL&P's demand coinciding with IMPA's system peak. However, the CP for IMPA does not always 12 13 align with CEL&P's. NewGen calculated load factors for rate classes and used 14 those factors to estimate demands for rate classes without significant demand data 15 and as a check on rate classes with only partial demand data. NewGen then applied 16 these load factors to the overall population to estimate each rate class's contribution 17 total peak demand measurements.

18 Some of CEL&P's larger customers within its Primary Power rate class 19 have interval meters that provide load data for these customers on a five-minute 20 interval. AMI data, like that from these interval meters, allows CEL&P to better

1		understand its customers' load habits, which is an ongoing benefit from CEL&P's
2		continued deployment and use of these meters.
3		Once NewGen estimated the contributions to demand, energy, customer,
4		and directly assigned costs, it calculated the cost to serve each rate class. NewGen's
5		subsequent rate design process used the results from the COSS as a guide.
6 7	Q:	Are there any discrepancies between the data used in the COSS versus the rate design?
8	A:	Yes. The GP rate class billing demand used in the COSS was modeled as being
9		approximately 20 MW lower than was used in the calculation of rates for that rate
10		class. The values used in the COSS and in the calculation of rates should be the
11		same, so CEL&P should correct this discrepancy.
12 13	Q:	Did CEL&P file corrections to its COSS along with related testimony on October 23, 2020?
14	A:	Yes. CEL&P corrected the AMI meter data it uses but does not directly collect.
15		Tantalus is a third-party vendor that provided NewGen the hourly AMI data for use
16		in CEL&P's COSS study. When this hourly data was time-stamped and used in the
17		COSS, it was assumed to be recorded Eastern Time ("ET"). However, after the
18		OUCC inquired about customers' unusual peak demand habits, it was discovered
19		the time stamps were in Coordinated Universal Time ("UTC"). Once the error was
20		recognized, CEL&P reran the COSS with the correct time-stamped hours. This
21		correction resulted in a significant change to the rate classes' contributions to
22		IMPA's CP.
23		Most notably, the residential class had a much larger contribution to

24 IMPA's CP, and the corrected COSS shows the residential rate class would require

1		a 26.2% rate increase to fully cover its allocated costs. In contrast, CEL&P's
2		original COSS showed only a 17.1% residential rate class increase. Petitioner's
3		Exhibit 4, the Corrected Direct Testimony of Joseph A. Mancinelli, lists all changes
4		NewGen implemented as a result of this correction. However, even with these
5		changes in the COSS, CEL&P did not make any changes to its proposed rates.
		III. DEMAND CHARGES AND DEMAND RATCHETS
6 7	Q:	Please describe CEL&P's proposal to implement demand charges and demand ratchets for its GP rate class.
8	A:	CEL&P is proposing the imposition of new demand charges for the GP rate class.
9		This rate class is currently billed using only an energy and a customer charge.
10		CEL&P is also proposing new demand ratchets for the GP rate class. NewGen and
11		CEL&P staff stated both in testimony <sup>2</sup> and during a technical call <sup>3</sup> with OUCC
12		staff that IMPA billing shifts are the reason for this change in rate design.
13		IMPA has increased the proportion of CEL&P's bill related to demand
14		relative to energy and, in response, CEL&P seeks to increase the share of cost
15		recovery coming from its demand charges. CEL&P also wants to send pricing
16		signals to these GP customers to pay attention to their maximum monthly demand.
17 18	Q:	Does the OUCC have concerns with CEL&P's proposed GP rate class demand charges?
19	A:	Yes. The OUCC does not contest the general idea that rate recovery should at least
20		somewhat mirror costs the utility incurred, and it does not contest the theory that
21		demand-related costs should be recovered by demand charges, with the same said

 <sup>&</sup>lt;sup>2</sup> Cause No. 45420. Petitioner's Exhibit 4. Corrected Direct Testimony of Joseph A. Mancinelli
 <sup>3</sup> Teleconference on November 5, 2020.

1 for energy-related costs. However, the OUCC is concerned about imposing 2 demand-related charges and ratchets on CEL&P's smallest customers, which are 3 found in its GP rate class. To my knowledge, none of Indiana's regulated electric 4 utilities impose a demand charge or ratchet on their smallest commercial 5 customers.<sup>4</sup>

6 Not only would CEL&P be the first Indiana rate-regulated utility to impose 7 demand charges and ratchets on its smallest commercial customers, the OUCC 8 questions the efficacy of using demand charges for this rate class. The energy 9 demand topic can be a complex one for a small customer to understand and, when the OUCC inquired in a teleconference,<sup>5</sup> CEL&P indicated there have been no 10 discussions with these customers to prepare them for the effects of demand charges 11 or ratchets.<sup>6</sup> Customer price signals work only if customers have adequate 12 13 knowledge about and access to meaningful options to change their load habits. An 14 energy charge is a relatively simple price signal customers know. If a customer 15 wants to lower its energy bill, it needs to lower its electricity use throughout the 16 month. Lowering a customer's maximum monthly demand is a different concept 17 and requires some relatively sophisticated insight into how a customer can reduce 18 this part of its bill. If demand charges are to have the intended effect on incenting 19 customer actions, customers need, at a minimum, to understand these charges and

<sup>&</sup>lt;sup>4</sup> While the size (in kW demand) of the smallest customers upon whom demand charges are imposed varies by utility, none of Indiana's utilities impose demand charges (or ratchets) on their smallest commercial customers at this time.

<sup>&</sup>lt;sup>5</sup> Teleconference on November 5, 2020.

<sup>&</sup>lt;sup>6</sup> Teleconference on November 5, 2020.

8	0:	Does the OUCC have concerns with CEL&P's proposed demand ratchets for
7		affect its smallest commercial customers.
6		imposed on the GP rate class is grounded in the fact that CEL&P's proposal would
5		available for affecting their demand. The OUCC's concern about demand charges
4		the customer, the more likely they are to understand these charges and have options
3		charges that will serve neither the interests of the customer nor CEL&P. The larger
2		to their demand; otherwise, these charges become simply randomly imposed
1		how these charges affect their bills. Further, they need the ability to make changes

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### its GP rate classes?

10 A: Yes. Demand ratchets provide a counterintuitive incentive structure for customers, 11 especially if those customers do not have significant control over their monthly 12 demand. Ratchets are used to make demand-related revenues for utilities more 13 consistent. The argument is a customer with a high maximum demand, even in a single month, requires the utility to build generation and other assets to service that 14 15 high maximum demand. Absent a ratchet, the utility only receives the demand 16 revenue for the one month; therefore, it may not be able to recover all costs required to build its system for that high level of demand. However, a small distribution 17 18 utility like CEL&P does not own generation, and IMPA does not impose a demand 19 ratchet upon it. As previously mentioned, CEL&P meets all its demand and energy 20 needs through wholesale transactions with IMPA. Because IMPA does not have a demand ratchet for its members, CEL&P has significantly less need for a ratchet
 compared to a generation-owning utility.
 Furthermore, during the ratchet period, demand charges and demand

ratchets have some contradictory incentives. During the ratchet period, the
customer will pay for demand whether it is used or not used. Therefore, the demand
charge is a sunk cost with a consequent zero marginal cost, which serves only to
diminish the customer's incentive to reduce its demand.

8 Perhaps most importantly, similar to demand charges, demand ratchets 9 assume customers have control and knowledge of their demand. The OUCC 10 contends small customers in CEL&P's GP class do not have enough influence or 11 understanding over their monthly demand to warrant either a demand charge or a 12 demand ratchet.

### 13Q:Does the OUCC have concerns with CEL&P's demand charges currently14being applied to CEL&P's Primary Power class?

15 A: No. There are a few reasons why the OUCC is not concerned with CEL&P's 16 Primary Power class's demand charges. First, this rate class already had demand 17 charges approved and implemented prior to this case. Second, Primary Power rate 18 class customers have higher demand than those in the GP rate class. Primary Power 19 rate class customers are more aware of their monthly demand and are better 20 equipped to manage their monthly load.

# 21Q:Does the OUCC oppose CEL&P's request to apply demand ratchets to22customers in its Primary Power class?

- 23 A: Yes. Based on Petitioner's Attachment JAM-3, titled "Rate Design Model with
- 24 Corrected Cost of Service Input," CEL&P's proposed Primary Power class demand

1	ratchet creates a less than a 1% increase in billing demand. However, in responding
2	to an OUCC inquiry during a teleconference about a specific customer's very high
3	billing demand leading to this small effect,7 CEL&P investigated its data and
4	determined there was an error. The correct total percent increase in billing demand
5	is 0.05% for the entire Primary Power rate class. <sup>8</sup> A majority of CEL&P's Primary
6	Power customers would experience no change in their test year billing demand from
7	the imposition of the ratchet. As discussed above regarding the GP rate class, a
8	demand ratchet creates little benefit for CEL&P because it does not own its
9	generation, and also due to how IMPA bills CEL&P. Due to the absence of need
10	for a Primary Power class demand ratchet, combined with the marginal effect the
11	proposed demand ratchet would have on the Primary Power class's billing demand,
12	the OUCC recommends the Commission deny CEL&P's proposed Primary Power
13	rate class demand ratchets.

#### IV. WEATHER NORMALIZATION

### 14 Q: Did NewGen use weather normalization as a part of CEL&P's COSS?

- 15 A: No, NewGen did not conduct any weather normalization as part of its cost of service
- 16 analysis.

#### 17 Q: What is the purpose of accounting for weather normalization in a COSS?

18 A: Normalizing weather in a COSS would prevent incorrect allocation of costs due to
19 the test year temperatures being significantly different than a normal year. If the

<sup>&</sup>lt;sup>7</sup> Email sent to the OUCC by CEL&P counsel on November 12, 2020, following up on a teleconference held on November 5, 2020.

<sup>&</sup>lt;sup>8</sup> The corrected data was presented in an email from CEL&P to the OUCC.

1		test year was abnormally cold, measurements of usage among the customer classes
2		would incorrectly allocate greater costs to residential customers than if it were a
3		normal year.
4 5	Q:	Is the fact that CEL&P did not perform a weather normalization fatal to its cost of service analysis?
6	A:	No. Most municipal utilities do not have data available to perform a weather
7		normalization analysis, and the OUCC does not oppose using CEL&P's cost of
8		service analysis in absence of a weather normalization. I raise the issue to highlight
9		the fact that a cost of service analysis for a small utility like CEL&P, while useful
10		and important, has more uncertainty than for utilities with more data availability.
		V. CONCLUSION AND RECOMMENDATIONS

## Q: What does the OUCC conclude regarding CEL&P's COSS and rate design in this Cause?

13 While CEL&P's COSS and rate design approach is typical and generally follows A: 14 the NARUC "Electric Utility Cost Allocation Manual" in its execution, the OUCC 15 has concerns about some of CEL&P's rate design proposals. CEL&P proposes to 16 impose demand charges and demand ratchets on the GP rate class. As explained 17 above, customers as small as those in the GP rate class do not typically receive a 18 demand charge because they are largely unable to understand or control their 19 demand. Demand ratchets are used to help utilities smooth their billing demand for 20 cost recovery of generation assets, but CEL&P has no generation assets. 21 Additionally, IMPA imposes no rachet on CEL&P. While CEL&P has demand-22 related cost components for its transmission and distribution assets, these costs are 23 not significant enough to warrant a demand ratchet. The OUCC is concerned about

14	Q:	Does this conclude your testimony?
13		class.
12		deny CEL&P's proposal to impose demand ratchets on the Primary Power rate
11		demand ratchets for its GP rate class. The OUCC also recommends the Commission
10		class structure, and deny CEL&P's proposal to implement demand charges and
9		energy rates and customer charges only, similar to CEL&P's current residential rate
8		Commission require CEL&P recover its cost of serving the GP rate class through
7	A:	For the reasons described in my testimony, the OUCC recommends the
6	Q:	What are the OUCC's COSS and rate design recommendations?
5		results for a small utility like CEL&P.
4		absence of this analysis increases the level of uncertainty in the cost of service
3		analysis, which creates some concern as to the effects of cost distribution. The
2		for similar reasons. Finally, CEL&P's COSS does not use a weather normalization
1		the efficacy of CEL&P's proposed demand ratchet for its Primary Power rate class

15 A: Yes.

### **APPENDIX A - QUALIFICATIONS OF SERGIO G. HUNT**

### 1 Q: Please summarize your professional background and experience.

- 2 I received a Bachelor of Arts in Quantitative Economics and Political Science from A: 3 IUPUI in 2018. My undergraduate education included introductory training in 4 econometric modeling and analysis, microeconomic theory, macroeconomic 5 theory, and policy analysis. I went directly into the Master of Science in Economics 6 program with a concentration on health at IUPUI where I graduated in 2020. The 7 Master's program included courses on econometric analysis, time series analysis, 8 graduate level microeconomic and macroeconomic theory, and applied economic 9 theory. While finishing my graduate degree, I began working for the Indiana Office 10 of Utility Consumer Counselor as an economist, with the title of Utility Analyst in 11 February 2020. 12 **Q**: Please describe your duties and responsibilities at the OUCC. 13 I review petitions submitted to the Commission for their economic justification and A: 14 perform other duties as assigned by the Agency.
- 15 Q: Have you previously testified before the Commission?
- 16 A: No.

### **AFFIRMATION**

I affirm, under the penalties for perjury, that the foregoing representations are true.

<u>/s/ Sergio Hunt</u> Sergio Hunt Utility Analyst Indiana Office of Utility Consumer Counsel

Cause No. 45420 Crawfordsville Electric Light and Power

Date: December 23, 2020

### **CERTIFICATE OF SERVICE**

This is to certify that a copy of the foregoing Indiana Office of Utility Consumer Counselor

Public's Exhibit No. 6\_Testimony of OUCC Witness Serio Hunt has been served upon the

following counsel of record in the captioned proceeding by electronic service on December 23,

2020.

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