#### **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 AND FOR APPROVAL TO MODIFY ITS ENERGY COST ADJUSTMENT PROCEDURES

**CAUSE NO. 45420** 

#### **NOTICE OF SUBSTITUTION OF WITNESS AND ADOPTION OF TESTIMONY**

Petitioner, Crawfordsville Electric Light & Power ("CEL&P" or "Petitioner"), hereby notifies the Commission that Laurie A. Tomczyk of NewGen Strategies & Solutions, LLC ("NewGen") will adopt the prefiled direct testimony of Petitioner's witness Andrew J. Reger. Mr. Reger recently left employment with NewGen, and Ms. Tomczyk worked with Mr. Reger to develop a new Electric Vehicle ("EV") rate class for CEL&P. Therefore, Ms. Tomczyk will adopt Mr. Reger's testimony as her supplemental direct testimony. A redline of Ms. Tomczyk's supplemental testimony is attached, and the substance of the original testimony remains the same. Clean copies of Ms. Tomczyk's supplemental testimony and attachments will be presented at the evidentiary hearing in this Cause.

Respectfully submitted,

trua Kern Wheeler

Kristina K. Wheeler, #20957-49A Nikki Gray Shoultz, #16509-41

BOSE MCKINNEY & EVANS LLP 111 Monument Circle, Suite 2700 Indianapolis, IN 46204 (317) 684-5000 (317) 684-5173 Fax kwheeler@boselaw.com nshoultz@boselaw.com

Counsel for Petitioner, Crawfordsville Electric Light & Power

#### **CERTIFICATE OF SERVICE**

I certify that a copy of the foregoing Notice of Substitution of Witness and Adoption of

*Testimony* was served upon the following by electronic mail this 27<sup>th</sup> day of January, 2021:

Scott Franson Indiana Office of the Utility Consumer Counselor PNC Center, Suite 1500 South 115 West Washington Street Indianapolis, IN 46204 <u>sfranson@oucc.in.gov</u> <u>infomgt@oucc.in.gov</u>

Kristina Kern Wheeler

Kristina Kern Wheeler

Bose McKinney & Evans LLP 111 Monument Circle, Suite 2700 Indianapolis, IN 46204 (317) 684-5000 (317) 684-5173 Fax

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#### STATE OF INDIANA

#### INDIANA UTILITY REGULATORY COMMISSION

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 AND FOR APPROVAL TO MODIFY ITS ENERGY COST ADJUSTMENT PROCEDURES

**CAUSE NO. 45420** 

#### PRE-FILED VERIFIED SUPPLEMENTAL DIRECT TESTIMONY OF

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#### ANDREW J. REGERLAURIE A. TOMCZYK

#### AND ATTACHMENTS AJRLAT-1S THROUGH AJR-3LAT-2S

#### **ON BEHALF OF PETITIONER**

#### **CRAWFORDSVILLE ELECTRIC LIGHT AND POWER**

#### **PETITIONER'S EXHIBIT 7**

**OCTOBER 23, 2020** 

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#### I. INTRODUCTION AND QUALIFICATIONS

### 2 Q.1. PLEASE STATE YOUR NAME AND ON WHOSE BEHALF YOU ARE 3 TESTIFYING.

4 A. My name is Andrew J. RegerLaurie A. Tomczyk. I am the same Laurie A. Tomczyk that 5 prefiled direct testimony in this Cause an Executive Consultant at NewGen Strategies and 6 Solutions, LLC ("NewGen"). My business address is 225 Union Boulevard, Suite 305, 7 Lakewood, Colorado, 80228. NewGen is a consulting firm that specializes in utility rates, 8 engineering economics, financial accounting, asset valuation, appraisals, and business strategy 9 for electric, natural gas, water, and wastewater utilities. I am testifying on behalf of the 10 Petitioner, Crawfordsville Electric Light & Power ("CEL&P" or the "Utility"), which is the 11 electric utility owned and operated by the City of Crawfordsville, Indiana ("Crawfordsville" 12 or the "City").

#### 13 Q.2. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.

A. My expertise includes cost of service and rate design, distributed energy resource market
 analysis, electric vehicle ("EV") and solar rate design, community solar program evaluation,
 and power supply planning. A summary of my qualifications is provided within <u>Attachment</u>
 AJR-1 to this testimony.

#### 18 Q.3. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A. Yes. As shown in Attachment AJR-1, I have testified before the Indiana Utility Regulatory
 Commission ("IURC") before, among other issues, that testimony was related to Richmond
 Power & Light's public Electric Vehicle Charging - Public Location ("EV-PP") charging rate.

#### 1 Q.4.Q.2. WHAT IS THE PURPOSE OF YOUR <u>SUPPLEMENTAL</u> TESTIMONY?

A. The purpose of my <u>supplemental</u> testimony is to explain CEL&P's proposed public EV
 charging rate design.

#### 4 Q.5.Q.3. WHAT ATTACHMENTS AND WORK PAPERS ARE YOU SPONSORING

#### 5 IN THIS CAUSE?

- A. I am sponsoring three<u>two</u> attachments as part of this testimony: my professional resume and
   record of testimony, a set of workpapers providing the data and methodology I followed to
   calculate the proposed public EV charging rate, and a proposed EV PP Tariff. The
   attachments I am sponsoring are listed below:
- 10 Attachment AJR-1 Andrew Reger Resume and Record of Past Testimony
- Attachment AJR-2LAT-1S Data and Calculations Supporting Public EV Charging
   Rate
- Attachment <u>AJR-3LAT-2S</u> Electric Vehicle Charging Public Location Tariff

### 14 Q.6.Q.4. WERE THESE EXHIBITS, ATTACHMENTS AND WORKPAPERS 15 PREPARED BY YOU OR UNDER YOUR SUPERVISION?

16 A. Yes.

#### 17 II. <u>ELECTRIC VEHICLE RATE</u>

#### 18 Q.7.Q.5. WHY DOES CEL&P WISH TO CREATE AN EV RATE?

A. CEL&P and the City currently have two installed and operating public chargers for electric
 vehicles that have been in operation since March 2019. One charging station is located at the
 Crawfordsville public library, while the other is located near the trailhead of a local park. Per

City ordinance, the public is currently assessed a \$1 per hour "parking fee" to charge at these
 stations, as CEL&P does not have an existing EV rate. To properly recover the costs of serving
 these existing chargers, and to recover the costs of serving future public EV charging facilities,
 CEL&P wishes to create a Commission-approved tariff rate for these public EV charging

5 stations.

### 6 Q.8.Q.6. WHY DIDN'T CEL&P INCLUDE AN ELECTRIC VEHICLE RATE IN ITS 7 ORIGINAL CASE-IN-CHIEF?

8 A. In 2019, management at CEL&P believed that charging an hourly parking-based fee was an 9 approach that would allow quick deployment of public EV charging stations in Crawfordsville. 10 It is my understanding that in preparing responses to the Office of the Utility Consumer 11 Counselor's ("OUCC's") electronic audit of CEL&P in this case, it was revealed that CEL&P 12 had existing EV charging stations. Upon the advice of counsel, CEL&P determined that it 13 should submit an EV rate to the Commission for approval. As <u>Iwe</u> recently <u>worked on a rate</u> 14 case for developed the public EV rate for Richmond Power & Light that included a new public 15 EV rate, General Manager Phillip R. Goode asked meNewGen Strategies & Solutions, LLC 16 ("NewGen") to develop and submit testimony on this topic for CEL&P. Last fall, I worked 17 with Andrew J. Reger to develop the new EV rate. Since Mr. Reger recently left NewGen, I 18 am adopting his prefiled direct testimony as my supplemental direct testimony.

### 19 Q.9.Q.7. WHO INSTALLED THE TWO EV CHARGING STATIONS IN 20 CRAWFORDSVILLE?

A. CEL&P signed a five-year lease with Charge Point for the two existing EV charging stations.
The lease provides a "subscription fee" of \$2,500 per charger per year, for a total of \$5,000.

#### Supplemental Direct Testimony of Andrew J. RegerLaurie A. Tomczyk

1 Charge Point installed the charging stations and maintains them. Therefore, there are no other 2 ongoing maintenance or service costs from Charge Point to CEL&P for the stations other than 3 the annual subscription fee. Except for some minimal investments which I discuss in more 4 detail in my testimony below, there were no additional directly assignable infrastructure costs 5 associated with supporting these charging stations. They were strategically placed in locations 6 where CEL&P was already replacing/installing existing streetlighting infrastructure allowing 7 for the charging stations' use of shared underground power delivery lines.

### 8 Q.10.Q.8. WHY IS IT IMPORTANT FOR UTILITIES TO OFFER EV-SPECIFIC 9 RATE STRUCTURES?

10 A. EV charging load is unique, and if public chargers are not deployed carefully, they can add a 11 substantial amount of capacity to a utility's system. Such high capacity can result in high costs 12 borne by the electric utility. However, higher rates of EV adoption represent an opportunity 13 for CEL&P and other electric utilities to serve customer demand for EVs and improve utility 14 load growth. A separately developed EV rate design allows electric utilities to monitor the 15 performance of this unique electric class given the nascent stage of EV market development, and to recover the costs of serving this unique electric load without subsidies from other rate 16 17 classes.

#### 18 Q.11.Q.9. WHAT SPECIFIC EV RATE DESIGN DID YOU DEVELOP?

A. <u>IWe</u> developed an electric rate based on CEL&P's existing General Power (GP) service class,
 with additional and specific adjustments and charges designed to recover costs of serving EV
 charging facilities.

#### 22 Q.12.Q.10. HOW DID YOU DESIGN THE EV RATE?

A. The public EV charging rate proposed herein is an energy-only rate designed to be charged to end-users of the public EV charging facility on the basis of dollars per kilowatt-hour (\$/kWh). To develop this rate, <u>Iwe</u> estimated the total costs of serving a public EV charging load similar to those in operation in CEL&P's territory, and divided that total cost amount by the monthly

energy consumption of the public EV charging facility. This produces a \$/kWh rate that on
average recovers the costs of serving a public EV charging facility.

#### 7 Q.13.Q.11. WHAT TYPES OF COSTS WERE INCLUDED IN THE PROPOSED RATE

#### 8 **DESIGN**?

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3

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9 A. <u>IWe</u> designed the public EV charging rate to recover two general types of costs:

- 10 1. The costs of power supply, delivery, and customer/administrative service; and
- The costs of certain other items specific to serving public EV charging stations in
   CEL&P's territory.

#### 13 **Q.14.Q.12.** PLEASE EXPLAIN THE FIRST TYPE OF COSTS FURTHER.

14 To recover the costs of power supply, delivery, and administrative service, Iwe based the rate 15 design on CEL&P's GP rate, which currently serves commercial loads up to 50 kW. This 16 50 kW cutoff is appropriate for each of the public EV charging stations currently operating in 17 CEL&P's territory. Further, this capacity would likely also be appropriate for similar 18 "Level 2" EV chargers that could be added to CEL&P's service territory in the future. The GP 19 rate includes a Facilities Charge, Demand Charge, and Energy Charge. To recover the power 20 supply, delivery, and administrative/customer service costs of serving the public EV charging 21 customers, <u>Iwe</u> assumed a utilization rate, or load factor, to estimate the kilowatt-hours 22 ("kWh") of consumption that would be reasonable for a public EV charging facility.

### 1 Q.15.Q.13. WHAT LOAD FACTOR DID YOU ASSUME TO DEVELOP THE EV-PP

2 **RATE?** 

A. <u>IWe</u> assumed a load factor of 10% based on a combination of recent and actual public EV
charging data and on the expectation that future EV adoption will generally increase load factor
at CEL&P's existing and future public EV charging stations.

### 6 Q.16.Q.14. DID YOU MAKE OTHER ASSUMPTIONS REGARDING THE PUBLIC 7 EV CHARGING LOAD?

8 A. Yes.  $\underline{IWe}$  also assumed a peak demand of the charger.

### 9 Q.17.Q.15. WHAT PEAK DEMAND DID YOU ASSUME TO DEVELOP THE EV-PP 10 RATE?

A. <u>IWe</u> assumed a peak demand for public EV chargers to be 7.2 kW, based on the currently operating public EV charging stations. Each of the currently operating public EV chargers feather two plugs, with a possible peak demand of 14.4 kW if both plugs are utilized simultaneously. Based on feedback from CEL&P, there are essentially no such examples of historic charging in which both plugs were utilized simultaneously at the charger.
Consequently, assuming a monthly peak demand of 7.2 kW reasonable.

#### 17 Q.18.Q.16. HOW DID YOU ESTIMATE THE ADMINISTRATIVE SERVICE COSTS

#### 18 ASSOCIATED WITH SERVING THE PUBLIC EV CHARGING FACILITY?

A. In the proposed Cost of Service filed by CEL&P, for all retail classes and there are generally
five types of costs functionalized as "Customer-related," which include Meter Reading,
Accounting, Customer Service, Sales, and Uncollectibles/Forfeited Discounts. Based on
feedback from CEL&P staff, the public EV charging vendor provides customer service, and it

Petitioner's Exhibit 7

Supplemental Direct Testimony of Andrew J. RegerLaurie A. Tomczyk

# is not reasonable to expect there will be Uncollectibles/Forfeited Discounts specific to the public EV charging stations. Thus, to reflect a lower cost of service, <u>Iwe</u> adjusted the GP Customer Charge associated with Customer Service down from \$30.00/month for the GP rate class to \$21.37/month for the EV-PP rate class.

### 5 Q.19.Q.17. HOW DID YOU ESTIMATE CERTAIN PUBLIC EV CHARGING6 SPECIFIC COSTS OF SERVICE?

A. Based on data requests and feedback from CEL&P, <u>Iwe</u> identified several costs specifically
associated with serving the currently operating public EV charging facilities. Those costs
include the annual \$5,000 lease payment made to the public EV charging station vendor, as
well as certain investments made in power delivery infrastructure to serve the public EV
charging stations. The various total infrastructure costs CEL&P has incurred by
interconnecting the two current public EV charging stations is a little more than \$14,000.

#### 13 Q.20.Q.18. HOW DO YOU PROPOSE TO HANDLE THE THIRD-PARTY

#### 14 CHARGING STATION LEASE PAYMENT IN RATE DESIGN?

A. CEL&P has made a determination to not include that lease cost in the proposed public EV
charging rate. Instead, CEL&P intends to account for that cost "below the line" of CEL&P's
overall Revenue Requirement. Consequently, while the lease cost is directly assignable to
public EV charging customers, we have not attempted to recover those costs though this
proposed EV rate design (or through any other customer rate class).

#### 20 Q.21.Q.19. HOW DO YOU PROPOSE TO HANDLE THE INFRASTRUCTURE COSTS

### ASSOCIATED WITH INTERCONNECTING THE PUBLIC EV CHARGINER STATIONS?

9

A. <u>FWe</u> have taken the adjusted total amount of material and labor costs associated with
interconnecting the two public EV chargers and amortized that cost over a period of 20 years.
That amortized amount is then converted to a \$/month flat charge for the purposes of
developing the public EV charging rate proposed herein. This 20-year amortization period is
reasonable for longer term distribution assets, which comprise the bulk of the infrastructure
installed to interconnect the public EV charging stations.

#### 7 Q.22.Q.20. HOW DID YOU COMBINE ALL OF THESE TYPES OF COSTS INTO A

#### 8 TOTAL CUSTOMER REVENUE REQUIREMENT PER PUBLIC EV CHARGER?

#### 10 follows:

Cost Component	Step 1 Rate	Step 2 Rate	Billing Units	Basis
Facilities Charge	\$21.37	\$21.37	\$/month	Proposed General Power Single Phase Rate Design
Dist. Infrastructure	\$29.68	\$29.68	\$/month	Actual Install Costs per Charger Amortized Over 20 Years
Demand Charge	\$5.92	\$8.92	\$/kW	Proposed General Power Single Phase rate design
Energy Charge	\$0.067050	\$0.056458	\$/kWh	Proposed General Power Single Phase rate design

A. <u>IWe</u> combined the various types of costs together into a monthly EV revenue requirement as

11

9

12 <u>IWe</u> then multiplied each component of the customer-level EV revenue requirement by my 13 assumed peak demand and monthly energy consumption to produce a total monthly EV revenue 14 requirement. <u>IWe</u> then divided this monthly EV revenue requirement by monthly energy 15 consumption to produce the energy-only rate proposed herein.

#### 16 Q.23.Q.21. HAVE YOU DEVELOPED MULTIPLE STEPS FOR IMPLEMENTING

#### 17 THIS PROPOSED RATE DESIGN?

- 1 A. Yes. In accordance with CEL&P's overall phased-in approach to its proposed rate increase,
- 2 <u>Iwe</u> have developed a two-step implementation plan for this public EV charging rate as
  3 follows:

Step 1	Step 2
\$0.24528/kWh	\$0.27578/kWh

4

### 5 Q.24.Q.22. COULD YOU PLEASE PROVIDE ADDITIONAL DETAIL ON THE 6 METHODOLOGY USED TO DEVELOP THE EV-PP RATE.

A. Yes. Attachment AJR-2LAT-1S provides the data on which Iwe relied, as well as the
methodology I used to calculate the recommended public EV charging rate.

## 9 Q.25.Q.23. HOW DOES RP&L'S PROPOSED EV RATE STRUCTURE COMPARE TO 10 HOW OTHER INDIANA MUNICIPAL UTILITIES STRUCTURE THEIR EV 11 RATES?

12 A. As mentioned above, Iwe worked with Richmond Power & Light to develop a public EV 13 charging rate, which I understand is the first of its kind for a municipal utility in Indiana. The 14 rate proposed herein for CEL&P is developed in a very similar manner, with power supply, 15 delivery, and administrative/customer costs based on the otherwise effective General Power 16 Rate. The difference here is we have also included interconnection infrastructure costs in developing the rate. We have done so here because we have data associated with actual installs 17 18 on which to rely. In Richmond, there were not any chargers installed or operating, and thus 19 we had no basis from which to assume any certain level of interconnection costs that should be included in the rate design. 20

#### 1 Q.26.Q.24. HOW DOES THIS PROPOSED EV RATE COMPARE WITH OTHER EV

2

#### RATE DESIGNS YOU HAVE SEEN?

3 A. Given the relatively nascent stage of the EV market, twe have seen variability across the 4 country in how electric utilities design EV charging rates. One of the most common 5 approaches for developing a public charging rate is to design the rate to align with a current 6 commercial rate class as we have done here. Other utilities employ a Time-of-Use rate design. 7 However, CEL&P did not take that approach because its goal was to simplify the offering for 8 the electric vehicle market in CEL&P's territory, which is in the very early stages of 9 development. Consequently, mythis EV-PP rate design proposal is similar to other utility 10 approaches to developing an EV rate design, and is reasonable here.

## 11 Q.27.Q.25. DO YOU SUGGEST THAT CEL&P RESERVE THE RIGHT TO USE ITS 12 30-DAY FILING PROCESS TO ADJUST THE EV RATE IN THE FUTURE IF 13 NEEDED?

14 A. I do. The basis for the public EV charging rate relies on several assumptions related to load 15 factor, peak demand, and the infrastructure costs required to interconnect new EV charging 16 facilities. Insofar as future public EV chargers present actual data that varies in a material 17 fashion from the assumptions used to develop this rate, I would recommend that CEL&P 18 consider evaluating and revising the proposed rate accordingly in the future. Generally, I have 19 designed the proposed public EV charging rate using a load factor that attempts to approximate 20 the future EV market in CEL&P's territory, so I do not expect the assumptions used here to be 21 outdated quickly. However, I do recommend that, if needed and the OUCC is amenable, 22 CEL&P use the 30-day filing process to consider future changes as appropriate based on actual

1 future public EV charging installations and future usage data. Of course, the use of the 30-day 2 filing process to further refine CEL&P's EV-PP rate would also have to be authorized by the 3 Commission in its Final Order in this Cause.

4 **Q.28.Q.26.** ARE YOU CONFIDENT THAT THE PROPOSED EV-PP RATE IS NOT

- 5
  - SUBSIDIZED BY OTHER RATE CLASSES?
- 6 A. Yes, I am. While CEL&P regrets that it did not include an EV-PP rate in its original filing and 7 apologizes for the oversight, because the other rates were developed independently and 8 CEL&P is handling the Charge Point subscription fee below the line of its Revenue 9 Requirement, I am confident that there is no subsidy.

#### 10 **Q.29.Q.27. DID YOU DEVELOP A TARIFF FOR THE EV-PP RATE?**

11 A. Yes, and it is included as Attachment AJR-3LAT-2S.

#### II. 12 SUMMARY AND CONCLUSION

#### 13 **0.30.0.28.** PLEASE PROVIDE A SUMMARY OF YOUR RECOMMENDATIONS.

- A. As described in my testimony, I recommend the IURC adopt CEL&P's proposed public EV 14
- 15 charging rate to properly recover the costs CEL&P incurs in serving such a unique load.

#### 16 DOES THIS CONCLUDE YOUR DIRECT TESTIMONY? <del>0.31.</del>0.29.

17 A. Yes.

#### **VERIFICATION**

I affirm under the penalties of perjury that the foregoing prefiled verified <u>supplemental</u> direct testimony is true to the best of my knowledge, information and belief as of the date here filed.

Andrew J. RegerLaurie A. Tomczyk

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#### STATE OF INDIANA

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#### **ON BEHALF OF PETITIONER**

#### **CRAWFORDSVILLE ELECTRIC LIGHT AND POWER**

#### **PETITIONER'S EXHIBIT 7**

#### **OCTOBER 23, 2020**

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#### I. INTRODUCTION AND QUALIFICATIONS

### 2 Q.1. PLEASE STATE YOUR NAME AND ON WHOSE BEHALF YOU ARE 3 TESTIFYING.

A. My name is Laurie A. Tomczyk. I am the same Laurie A. Tomczyk that prefiled direct
testimony in this Cause on behalf of the Petitioner, Crawfordsville Electric Light & Power
("CEL&P" or the "Utility"), which is the electric utility owned and operated by the City of
Crawfordsville, Indiana ("Crawfordsville" or the "City").

#### 8 Q.2. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?

9 A. The purpose of my supplemental testimony is to explain CEL&P's proposed public EV
10 charging rate design.

### 11 Q.3. WHAT ATTACHMENTS AND WORK PAPERS ARE YOU SPONSORING IN

#### 12 THIS CAUSE?

A. I am sponsoring two attachments as part of this testimony: a set of workpapers providing the
 data and methodology I followed to calculate the proposed public EV charging rate, and a
 proposed EV – PP Tariff. The attachments I am sponsoring are listed below:

- Attachment LAT-1S Data and Calculations Supporting Public EV Charging Rate
- 17
- Attachment LAT-2S Electric Vehicle Charging Public Location Tariff

#### 18 Q.4. WERE THESE EXHIBITS, ATTACHMENTS AND WORKPAPERS PREPARED

- 19 **BY YOU OR UNDER YOUR SUPERVISION?**
- 20 A. Yes.

1

#### II. ELECTRIC VEHICLE RATE

#### 2 Q.5. WHY DOES CEL&P WISH TO CREATE AN EV RATE?

3 A. CEL&P and the City currently have two installed and operating public chargers for electric 4 vehicles that have been in operation since March 2019. One charging station is located at the 5 Crawfordsville public library, while the other is located near the trailhead of a local park. Per 6 City ordinance, the public is currently assessed a \$1 per hour "parking fee" to charge at these 7 stations, as CEL&P does not have an existing EV rate. To properly recover the costs of serving 8 these existing chargers, and to recover the costs of serving future public EV charging facilities, 9 CEL&P wishes to create a Commission-approved tariff rate for these public EV charging 10 stations.

### 11 Q.6. WHY DIDN'T CEL&P INCLUDE AN ELECTRIC VEHICLE RATE IN ITS 12 ORIGINAL CASE-IN-CHIEF?

13 A. In 2019, management at CEL&P believed that charging an hourly parking-based fee was an 14 approach that would allow quick deployment of public EV charging stations in Crawfordsville. 15 It is my understanding that in preparing responses to the Office of the Utility Consumer 16 Counselor's ("OUCC's") electronic audit of CEL&P in this case, it was revealed that CEL&P 17 had existing EV charging stations. Upon the advice of counsel, CEL&P determined that it 18 should submit an EV rate to the Commission for approval. As we recently worked on a rate 19 case for Richmond Power & Light that included a new public EV rate, General Manager Phillip 20 R. Goode asked NewGen Strategies & Solutions, LLC ("NewGen") to develop and submit 21 testimony on this topic for CEL&P. Last fall, I worked with Andrew J. Reger to develop the

new EV rate. Since Mr. Reger recently left NewGen, I am adopting his prefiled direct
 testimony as my supplemental direct testimony.

### 3 Q.7. WHO INSTALLED THE TWO EV CHARGING STATIONS IN 4 CRAWFORDSVILLE?

5 A. CEL&P signed a five-year lease with Charge Point for the two existing EV charging stations. 6 The lease provides a "subscription fee" of \$2,500 per charger per year, for a total of \$5,000. 7 Charge Point installed the charging stations and maintains them. Therefore, there are no other 8 ongoing maintenance or service costs from Charge Point to CEL&P for the stations other than 9 the annual subscription fee. Except for some minimal investments which I discuss in more 10 detail in my testimony below, there were no additional directly assignable infrastructure costs 11 associated with supporting these charging stations. They were strategically placed in locations 12 where CEL&P was already replacing/installing existing streetlighting infrastructure allowing 13 for the charging stations' use of shared underground power delivery lines.

### 14 Q.8. WHY IS IT IMPORTANT FOR UTILITIES TO OFFER EV-SPECIFIC RATE 15 STRUCTURES?

A. EV charging load is unique, and if public chargers are not deployed carefully, they can add a substantial amount of capacity to a utility's system. Such high capacity can result in high costs
 borne by the electric utility. However, higher rates of EV adoption represent an opportunity
 for CEL&P and other electric utilities to serve customer demand for EVs and improve utility
 load growth. A separately developed EV rate design allows electric utilities to monitor the
 performance of this unique electric class given the nascent stage of EV market development,

and to recover the costs of serving this unique electric load without subsidies from other rate
 classes.

#### **3 Q.9. WHAT SPECIFIC EV RATE DESIGN DID YOU DEVELOP?**

A. We developed an electric rate based on CEL&P's existing General Power (GP) service class,
with additional and specific adjustments and charges designed to recover costs of serving EV
charging facilities.

#### 7 Q.10. HOW DID YOU DESIGN THE EV RATE?

8 A. The public EV charging rate proposed herein is an energy-only rate designed to be charged to

9 end-users of the public EV charging facility on the basis of dollars per kilowatt-hour (\$/kWh).

10 To develop this rate, we estimated the total costs of serving a public EV charging load similar

11 to those in operation in CEL&P's territory, and divided that total cost amount by the monthly

12 energy consumption of the public EV charging facility. This produces a \$/kWh rate that on

13 average recovers the costs of serving a public EV charging facility.

### 14 Q.11. WHAT TYPES OF COSTS WERE INCLUDED IN THE PROPOSED RATE 15 DESIGN?

16 A. We designed the public EV charging rate to recover two general types of costs:

17 1. The costs of power supply, delivery, and customer/administrative service; and

The costs of certain other items specific to serving public EV charging stations in
 CEL&P's territory.

#### 20 Q.12. PLEASE EXPLAIN THE FIRST TYPE OF COSTS FURTHER.

6

#### Supplemental Direct Testimony of Laurie A. Tomczyk

1 To recover the costs of power supply, delivery, and administrative service, we based the rate 2 design on CEL&P's GP rate, which currently serves commercial loads up to 50 kW. This 3 50 kW cutoff is appropriate for each of the public EV charging stations currently operating in 4 CEL&P's territory. Further, this capacity would likely also be appropriate for similar 5 "Level 2" EV chargers that could be added to CEL&P's service territory in the future. The GP rate includes a Facilities Charge, Demand Charge, and Energy Charge. To recover the power 6 7 supply, delivery, and administrative/customer service costs of serving the public EV charging 8 customers, we assumed a utilization rate, or load factor, to estimate the kilowatt-hours ("kWh") 9 of consumption that would be reasonable for a public EV charging facility.

#### 10 Q.13. WHAT LOAD FACTOR DID YOU ASSUME TO DEVELOP THE EV-PP RATE?

A. We assumed a load factor of 10% based on a combination of recent and actual public EV
 charging data and on the expectation that future EV adoption will generally increase load factor
 at CEL&P's existing and future public EV charging stations.

### 14 Q.14. DID YOU MAKE OTHER ASSUMPTIONS REGARDING THE PUBLIC EV 15 CHARGING LOAD?

16 A. Yes. We also assumed a peak demand of the charger.

#### 17 Q.15. WHAT PEAK DEMAND DID YOU ASSUME TO DEVELOP THE EV-PP RATE?

A. We assumed a peak demand for public EV chargers to be 7.2 kW, based on the currently
operating public EV charging stations. Each of the currently operating public EV chargers
feather two plugs, with a possible peak demand of 14.4 kW if both plugs are utilized
simultaneously. Based on feedback from CEL&P, there are essentially no such examples of

historic charging in which both plugs were utilized simultaneously at the charger.
 Consequently, assuming a monthly peak demand of 7.2 kW reasonable.

### 3 Q.16. HOW DID YOU ESTIMATE THE ADMINISTRATIVE SERVICE COSTS 4 ASSOCIATED WITH SERVING THE PUBLIC EV CHARGING FACILITY?

5 A. In the proposed Cost of Service filed by CEL&P, for all retail classes and there are generally 6 five types of costs functionalized as "Customer-related," which include Meter Reading, 7 Accounting, Customer Service, Sales, and Uncollectibles/Forfeited Discounts. Based on 8 feedback from CEL&P staff, the public EV charging vendor provides customer service, and it 9 is not reasonable to expect there will be Uncollectibles/Forfeited Discounts specific to the 10 public EV charging stations. Thus, to reflect a lower cost of service, we adjusted the GP 11 Customer Charge associated with Customer Service down from \$30.00/month for the GP rate 12 class to \$21.37/month for the EV-PP rate class.

### Q.17. HOW DID YOU ESTIMATE CERTAIN PUBLIC EV CHARGING-SPECIFIC COSTS OF SERVICE?

A. Based on data requests and feedback from CEL&P, we identified several costs specifically
associated with serving the currently operating public EV charging facilities. Those costs
include the annual \$5,000 lease payment made to the public EV charging station vendor, as
well as certain investments made in power delivery infrastructure to serve the public EV
charging stations. The various total infrastructure costs CEL&P has incurred by
interconnecting the two current public EV charging stations is a little more than \$14,000.

#### 21 Q.18. HOW DO YOU PROPOSE TO HANDLE THE THIRD-PARTY CHARGING

#### 22 STATION LEASE PAYMENT IN RATE DESIGN?

A. CEL&P has made a determination to not include that lease cost in the proposed public EV
charging rate. Instead, CEL&P intends to account for that cost "below the line" of CEL&P's
overall Revenue Requirement. Consequently, while the lease cost is directly assignable to
public EV charging customers, we have not attempted to recover those costs though this
proposed EV rate design (or through any other customer rate class).

## 6 Q.19. HOW DO YOU PROPOSE TO HANDLE THE INFRASTRUCTURE COSTS 7 ASSOCIATED WITH INTERCONNECTING THE PUBLIC EV CHARGINER 8 STATIONS?

A. We have taken the adjusted total amount of material and labor costs associated with
interconnecting the two public EV chargers and amortized that cost over a period of 20 years.
That amortized amount is then converted to a \$/month flat charge for the purposes of
developing the public EV charging rate proposed herein. This 20-year amortization period is
reasonable for longer term distribution assets, which comprise the bulk of the infrastructure
installed to interconnect the public EV charging stations.

#### 15 Q.20. HOW DID YOU COMBINE ALL OF THESE TYPES OF COSTS INTO A TOTAL

#### 16 CUSTOMER REVENUE REQUIREMENT PER PUBLIC EV CHARGER?

A. We combined the various types of costs together into a monthly EV revenue requirement asfollows:

9

	Step 1	Step 2		
Cost Component	Rate	Rate	Billing Units	Basis
Facilities Charge	\$21.37	\$21.37	\$/month	Proposed General Power Single Phase Rate Design
Dist. Infrastructure	\$29.68	\$29.68	\$/month	Actual Install Costs per Charger Amortized Over 20 Years
Demand Charge	\$5.92	\$8.92	\$/kW	Proposed General Power Single Phase rate design
Energy Charge	\$0.067050	\$0.056458	\$/kWh	Proposed General Power Single Phase rate design

We then multiplied each component of the customer-level EV revenue requirement by my assumed peak demand and monthly energy consumption to produce a total monthly EV revenue requirement. We then divided this monthly EV revenue requirement by monthly energy consumption to produce the energy-only rate proposed herein.

### 5 Q.21. HAVE YOU DEVELOPED MULTIPLE STEPS FOR IMPLEMENTING THIS 6 PROPOSED RATE DESIGN?

7 A. Yes. In accordance with CEL&P's overall phased-in approach to its proposed rate increase,

8 we have developed a two-step implementation plan for this public EV charging rate as follows:

Step 1	Step 2
\$0.24528/kWh	\$0.27578/kWh

9

#### 10 Q.22. COULD YOU PLEASE PROVIDE ADDITIONAL DETAIL ON THE

#### 11 METHODOLOGY USED TO DEVELOP THE EV-PP RATE.

- 12 A. Yes. Attachment LAT-1S provides the data on which we relied, as well as the methodology I
- 13 used to calculate the recommended public EV charging rate.

#### 1 Q.23. HOW DOES RP&L'S PROPOSED EV RATE STRUCTURE COMPARE TO HOW

#### 2 OTHER INDIANA MUNICIPAL UTILITIES STRUCTURE THEIR EV RATES?

3 A. As mentioned above, we worked with Richmond Power & Light to develop a public EV 4 charging rate, which I understand is the first of its kind for a municipal utility in Indiana. The 5 rate proposed herein for CEL&P is developed in a very similar manner, with power supply, 6 delivery, and administrative/customer costs based on the otherwise effective General Power 7 Rate. The difference here is we have also included interconnection infrastructure costs in 8 developing the rate. We have done so here because we have data associated with actual installs 9 on which to rely. In Richmond, there were not any chargers installed or operating, and thus 10 we had no basis from which to assume any certain level of interconnection costs that should 11 be included in the rate design.

### 12 Q.24. HOW DOES THIS PROPOSED EV RATE COMPARE WITH OTHER EV RATE 13 DESIGNS YOU HAVE SEEN?

14 A. Given the relatively nascent stage of the EV market, we have seen variability across the country 15 in how electric utilities design EV charging rates. One of the most common approaches for 16 developing a public charging rate is to design the rate to align with a current commercial rate 17 class as we have done here. Other utilities employ a Time-of-Use rate design. However, 18 CEL&P did not take that approach because its goal was to simplify the offering for the electric 19 vehicle market in CEL&P's territory, which is in the very early stages of development. 20 Consequently, this EV-PP rate design proposal is similar to other utility approaches to 21 developing an EV rate design, and is reasonable here.

#### 1 Q.25. DO YOU SUGGEST THAT CEL&P RESERVE THE RIGHT TO USE ITS 30-DAY

#### 2 FILING PROCESS TO ADJUST THE EV RATE IN THE FUTURE IF NEEDED?

3 A. I do. The basis for the public EV charging rate relies on several assumptions related to load 4 factor, peak demand, and the infrastructure costs required to interconnect new EV charging 5 facilities. Insofar as future public EV chargers present actual data that varies in a material 6 fashion from the assumptions used to develop this rate, I would recommend that CEL&P 7 consider evaluating and revising the proposed rate accordingly in the future. Generally, I have 8 designed the proposed public EV charging rate using a load factor that attempts to approximate 9 the future EV market in CEL&P's territory, so I do not expect the assumptions used here to be 10 outdated quickly. However, I do recommend that, if needed and the OUCC is amenable, 11 CEL&P use the 30-day filing process to consider future changes as appropriate based on actual 12 future public EV charging installations and future usage data. Of course, the use of the 30-day 13 filing process to further refine CEL&P's EV-PP rate would also have to be authorized by the 14 Commission in its Final Order in this Cause.

### Q.26. ARE YOU CONFIDENT THAT THE PROPOSED EV-PP RATE IS NOT SUBSIDIZED BY OTHER RATE CLASSES?

A. Yes, I am. While CEL&P regrets that it did not include an EV-PP rate in its original filing and
apologizes for the oversight, because the other rates were developed independently and
CEL&P is handling the Charge Point subscription fee below the line of its Revenue
Requirement, I am confident that there is no subsidy.

#### 21 Q.27. DID YOU DEVELOP A TARIFF FOR THE EV-PP RATE?

22 A. Yes, and it is included as Attachment LAT-2S.

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#### II. <u>SUMMARY AND CONCLUSION</u>

#### 2 Q.28. PLEASE PROVIDE A SUMMARY OF YOUR RECOMMENDATIONS.

- 3 A. As described in my testimony, I recommend the IURC adopt CEL&P's proposed public EV
- 4 charging rate to properly recover the costs CEL&P incurs in serving such a unique load.

#### 5 Q.29. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

6 A. Yes.

#### **VERIFICATION**

I affirm under the penalties of perjury that the foregoing prefiled verified supplemental direct testimony is true to the best of my knowledge, information and belief as of the date here filed.

Haunin Tomczyk

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