



City of Columbia

701 East Broadway, Columbia, Missouri 65201

Department Source: City Utilities - Water and Light

To: City Council

From: City Manager & Staff

Council Meeting Date: June 5, 2023

Re: Amending Chapter 27 of the City Code as it relates to electric utility rates.

Executive Summary

Staff has prepared for Council consideration an ordinance amending Chapter 27 of the City Code as it relates to rates charged by the electric utility.

Discussion

Part of Chapter 27 of the City Code governs the charges paid by customers of the electric utility. An \$8.3 million revenue increase is proposed for the electric utility to take effect July 1, 2023. This overall proposed 6.9% increase in revenue is necessary to address an increase in operation and maintenance expenses, maintain cash reserve levels, and ensure adequate debt coverage for the entire Water and Electric fund.

In March 2018, the Council established an Integrated Electric Resource and Master Plan (IERMP) Task Force. This task force was a group of citizens charged with addressing an integrated electric resource plan, master plan and cost of service study. The Task Force had a total of fifty open meetings beginning in 2018 and finishing in 2021. The Task Force provided a report to the City Council in December 2021 that included the integrated electric resource plan and master plan with recommendations. The cost of service study was not completed at that time and the responsibility for completion was transferred to the Water and Light Advisory Board (WLAB). The Cost of Service and rate adjustments have been a topic of many WLAB meetings and the results were presented to Council at the March 6, 2023 work session and discussed by Council at the April 3, 2023 work session. Attached is the Forecast, Cost of Service and Rate Study - Final Report from The Prime Group, LLC.

As outlined in the attached report, the three principal steps of the cost of service are functional assignment, classifications and class allocation. Functional assignment breaks down costs into the major functional groups of service: power purchase, transmission, distribution, power production, customer service, meter reading, etc. In the classification step, each of the previous functional groups is assigned based on the major cost drivers to: energy related costs, demand related costs and customer related costs. In the final step, these different costs are then allocated to each rate class based on the cost to provide the service to each rate class, joint costs are distributed among the classes as reasonably as possible.

The forecast was originally developed using Fiscal Year 2019 data and presented to the IERMP task force. Once the task force completed the resource plan and master plan, those recommendations were incorporated into the forecast. The revenue requirement presented



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in November 2023 to the WLAB based on the IERMP task force and Siemens Master Plan recommendations was between \$22 million and \$27 million. This would require a significant rate increase that would likely not align with customer and Council expectations. The WLAB then evaluated alternate Capital Improvement Plans proposed by staff, AMI (Automated Metering Infrastructure) costs, and 2022 power purchase costs in an effort to reduce the revenue requirement to align with customer and Council expectations for a rate adjustment. The final forecast utilizes an updated Capital Improvement Plan and fiscal year 2022 expenses except for power purchase where fiscal year 2021 power purchase expenses were used. Increased purchase power expenses in 2022 were the result of higher energy prices, reliability concerns and weather events. Based on fiscal year 2023 power purchase costs to date, the fiscal year 2022 costs seem to be an outlier, therefore using fiscal year 2021 power purchase expenses were justified. The WLAB also recommended revising the City's Fuel Adjustment Allowance with a revised Power Cost Adjustment to account for exceptional years of power purchase and to reduce the necessary revenue requirement and associated rate adjustment.

The WLAB agreed to recommend to City Council a revenue requirement of \$8.3 million, presented at the March 6, 2023 City Council Work Session. The proposed rate adjustment based on this revenue requirement met the following goals for three years following implementation: a positive net margin (income), positive cash reserves per City policy and debt service coverage ratio of 1.2. The final rate design is based on the WLAB recommendations and City Council input from the April 3, 2023 work session. Additionally, WLAB agreed to move towards implementing a rate structure that more closely aligns with the cost of service information. The cost of service indicated that some rate classes, including the industrial and large general service, were subsidizing the residential rate classes. By moving towards the cost of service results, the subsidy between rate classes was reduced, but not eliminated.

There was much discussion with the WLAB about impact of rate adjustments on low income users. There was also much discussion about achieving the goals of the Climate Action and Adaptation Plan with regard to electric and electric rates. Both of these topics were at the forefront of rate design discussion with regard to customer charge, demand charges and energy charges, specifically the existing inclining block structure. With regard to the customer charge, the WLAB recommended that the rate design move towards the cost to provide the service as outlined in the study provided by The Prime Group. This means that costs classified as customer costs, that do not significantly vary with energy use, should be recovered in the customer charge. This does two things, reduces risk to the utility and reduces the volatility of the customer's monthly bill. The WLAB also recommended that the existing inclining block structure for the energy charge be maintained. Maintaining the existing structure would reduce confusion with regard to the rate adjustment. Once an AMI system has been installed, the utility will have more information and ability to address energy conservation through rate design. From the cost of service study, of those customers that received financial assistance, gas heat customers used 17% more energy than average and electric heat customers used 46% more energy than average. Based on this information, the WLAB agreed with a reduced differential between the inclining blocks to relieve the impact



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of the rate adjustment to those utility customers that live in inefficient dwellings and use greater than average amounts of energy. The Climate Action and Adaptation Plan seeks to encourage the use of electric vehicles and appliances, in that regard, the inclining block structure seems to discourage this transition. Each decision on the rate design was an attempt to balance between conservation and impact to low income users with the knowledge that conservation will be more adequately addressed in the future with an AMI system, residential demand rates, time of use rates and through energy efficiency programs. The proposed rate adjustment agrees with the WLAB recommendations and Council feedback from the April 3, 2023 work session.

Additionally, Section 27-118 is being revised to provide a more accurate mechanism to allow the Utility the ability to adjust revenue collection to more closely match actual power cost expenses. Subsequent to fiscal year 2022, where Council appropriated an additional \$30.75 million from Electric cash reserves to cover power purchase costs, it became apparent that the utility should be utilizing Section 27-118 to recover unexpected power purchase costs. Most energy utilities have a power or fuel cost adjustment factor to incrementally recover unforeseen costs in the energy markets. By recovering costs through a power cost adjustment (PCA) rate, the utility could more easily maintain its cash reserves and therefore its debt coverage ratio and maintain financial stability. The draft policy for the updated power cost adjustment is attached. Staff has revised the methodology of calculating this from that recommended by the consultant. The changes place a maximum adjustment per month and allow for recovery over longer time periods if the adjustment needed exceeds the maximum.

Chapter 27 proposed changes: Chapter 27 of the City Code governs the charges paid by customers of the electric utility. The following rate adjustments are being proposed to take effect on July 1, 2023.

Sec. 27-112. Same—Residential service rate.

(c) *Monthly rate charge:* The monthly rate per kilowatt hour shall be as follows, subject to ~~fuel adjustments~~ power cost adjustment as provided in section 27-118:

(1) Customer charge ~~\$16.31~~ \$22.00 per month

Non-standard electric meter customer charge ~~21.54~~ \$35.02 per month

(2) Energy charge

Summer:

First 300 kwh ~~7.86~~ 8.89 cents per kwh

Next 450 kwh ~~10.25~~ 10.89cents per kwh

Next 1,250 kwh ~~13.97~~ 12.89 cents per kwh

All remaining kwh ~~15.11~~ 14.89 cents per kwh

Non-summer:

First 300 kwh ~~7.86~~ 8.89 cents per kwh

Next 450 kwh ~~10.25~~ 10.89 cents per kwh



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All remaining kwh ~~11.84~~ 12.00 cents per kwh

Except when the customer has permanently installed in a living area a minimum of five (5) kilowatts of utility-approved electric space heating equipment which is the sole source of comfort heating (except decorative fireplaces) for the area(s) to be heated, the rate per kwh for the non-summer season will be:

First 300 kwh ~~7.86~~ 8.89 cents per kwh

Next 450 kwh ~~10.25~~ 10.89 cents per kwh

All remaining kwh ~~9.85~~ 10.00 cents per kwh

(d) *High efficiency heat pumps*: For customers having a permanently installed heat pump which is the primary source of comfort heating and which conforms to the special rules and regulations outlined in department rules entitled "Heat Pump Rules and Regulations," the monthly rate per kilowatt hour billed during the non-summer season for energy shall be as follows:

First 300 kwh ~~7.86~~ 8.89 cents per kwh

Next 450 kwh ~~10.25~~ 10.89 cents per kwh

All remaining kwh ~~9.34~~ 9.50 cents per kwh

(e) *Minimum*: The minimum monthly rate charge shall be sixteen dollars and thirty-one cents (\$~~16.31~~ 22.00). The minimum monthly rate charge for customers with a non-standard electric meter shall be ~~twenty-one dollars and fifty-four cents (\$21.54)~~ thirty-five dollars and two cents (\$35.02).

Sec. 27-114. Same—Small general service rate.

(c) *Monthly rate charge*: The monthly rate per kilowatt hour shall be as follows, subject to ~~fuel adjustments~~ power cost adjustment as provided in section 27-118:

(1) Customer charge:

Single-phase service ~~16.51~~ 22.00 per month

Three-phase service ~~27.20~~ 33.00 per month

(2) Energy charge:

Summer:

First 500 kwh ~~8.47~~ 9.23 cents per kwh

Next 1,000 kwh ~~10.79~~ 11.23 cents per kwh

All remaining kwh ~~14.89~~ 13.73 cents per kwh

Non-summer:

First 500 kwh ~~8.47~~ 9.23 cents per kwh

All remaining kwh ~~10.79~~ 11.23 cents per kwh

(d) *Space heating*: For customers using electric heating as the sole means of comfort heating, the monthly rate per kilowatt hour billed during the non-summer season shall be as follows:

First 500 kwh ~~8.47~~ 9.23 cents per kwh

Next 1,000 kwh ~~10.79~~ 11.23 cents per kwh

All remaining kwh ~~9.93~~ 10.43 cents per kwh



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- (e) *High efficiency heat pumps*: For customers having a permanently installed heat pump which is the primary source of comfort heating and which conforms to the special rules and regulations outlined in department rules entitled "Heat Pump Rules and Regulations," the monthly rate per kilowatt hour billed during the non-summer season for energy shall be as follows:

First 500 kwh ~~8.47~~ 9.23 cents per kwh
Next 1,000 kwh ~~10.79~~ 11.23 cents per kwh
All remaining kwh ~~9.36~~ 9.83 cents per kwh

- (f) *Minimum bill*: The minimum bill for single-phase service, shall be sixteen dollars and fifty-one cents (~~\$16.51~~ 22.00) per month; for three-phase service, twenty-seven dollars and twenty cents (~~\$27.20~~ 33.00) per month.

- (l) *Optional rate schedule*: Customers in this rate class may voluntarily be placed on a demand billing rate as follows:

Summer All kw at ~~\$16.31~~ 17.48 per kw
Non-Summer All kw at ~~\$13.07~~ 14.01 per kw

- (3) Energy charge:

Non-Summer All kwh at ~~5.13~~ 5.39 cents per kwh

Sec. 27-115. Same—Interruptible service rate.

- (c) *Monthly rate charge*: The monthly rate per kilowatt hour shall be as follows, subject to ~~fuel adjustments~~ power cost adjustment as provided in section 27-118:

		Summer	Non-Summer
(1)	Customer charge (per month)	\$ 61.20 <u>65.00</u>	\$ 61.20 <u>65.00</u>
(2)	Demand charge (per kilowatt)	10.28 <u>10.89</u>	8.23 <u>8.84</u>
(3)	Energy charge (per kilowatt hour)	0.0478 <u>0.0455</u>	0.0447 <u>0.0424</u>

Sec. 27-116. Same—Large general service.

- (c) *Monthly rate charge*: The monthly rate per kilowatt hour shall be as follows, subject to ~~fuel adjustments~~ power cost adjustment as provided in section 27-118:

(1)	Customer charge	\$ 46.13 <u>65.00</u> per month	
		Summer	Non-Summer
(2)	Demand charge:		
	Minimum demand charge—25 kw or less	\$ 369.04 <u>423.00</u>	\$ 276.78 <u>343.50</u>
	All additional kw (per kw)	15.99 <u>16.92</u>	12.81 <u>13.74</u>
(3)	Energy charge:		
	All kwh (per kwh)	0.0577 <u>0.570</u>	0.0503 <u>0.0496</u>

Sec. 27-117. Same—Industrial service rate.

- (c) *Monthly rate charge*: The monthly rate per kilowatt hour shall be as follows, subject to ~~fuel adjustments~~ power cost adjustment as provided in section 27-118:



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(1)	Customer charge	\$ 161.45 <u>200.00</u> per month	
		Summer	Non-Summer
(2)	Demand charge:		
	a. Minimum demand charge 750 kw or less	\$ 16,705.93 <u>18,472.50</u>	\$ 13,316.74 <u>14,347.50</u>
	b. All additional kw (per kw)	22.27 <u>24.63</u>	17.76 <u>19.13</u>
(3)	Energy charge:		
	All kwh (per kwh)	0.0509	0.0435

(l) *Off-peak discount.*

(2) *Energy charge:* Energy supplied for the period beginning 12:00 midnight and ending at 6:00 a.m. shall be charged at the rate of ~~3.86~~ 3.99 cents per kwh during the summer months and ~~3.46~~ 3.45 cents per kwh during the non-summer months. Energy charged at this rate will be subject to the ~~fuel adjustments allowance~~ power cost adjustment as provided in section 27-118.

Sec. 27-117.1. - Standby and supplemental service.

(d) Monthly rate charges: The monthly rate charges shall be as follows, subject to ~~fuel adjustments~~ power cost adjustment as provided in section 27-118 of this Code:

Net Rate Per Month

Administrative charge, per meter, per month\$100.00

Customer charge, per meter, per month~~\$161.45~~ 200.00

Distribution delivery charge, per kW for secondary voltage delivery\$6.59

Per kW for primary voltage delivery\$5.75

Sec. 27-118. - ~~Same—Fuel adjustment allowance~~ Power Cost Adjustment.

The Director shall promulgate a Power Cost Adjustment Calculation Procedure consistent with the provisions of this article. The director is authorized to revise the Power Cost Adjustment Calculation Procedure as necessary and when an updated Electric Cost of Service Study has been completed. All such revisions must be consistent with the provisions of this article.



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- (a) The monthly ~~rate charge~~ power cost adjustment (PCA) will be average annual power cost per kwh above or below ~~three and twenty five~~ five and seventy-six hundredths cents (\$ ~~.0325~~ 0.0576) per kilowatt-hour. In determining the ~~fuel~~ ~~adjustment allowance~~ PCA under the formula set forth above, the ~~energy~~ power cost shall be the sum of the following.
- (1) ~~Average~~ Total annual cost of fuel in the city's generating plant based on the net kilowatt hour generated in the city's plant;
 - (2) ~~Cost~~ Total annual cost of purchased energy based on the net kilowatt hour purchased;
 - (3) The monthly capacity costs (including the demand cost of purchased power) less the amount billed under special contract rates.
 - (4) Total annual transmission expenses less total annual transmission revenues.
- (b) The PCA shall be updated on a monthly basis using the procedure outlined in department rules entitled "Power Cost Adjustment Calculation Procedure".
- (c) Notwithstanding the foregoing, no customer shall be charged a monthly PCA rate greater than fifteen percent (15%) of the first 300 kwh non-summer rate provided in section 27-112 (c)(2).
- (d) At the end of the fiscal year, any deficit or surplus in PCA collections shall be used be incorporated into the power cost adjustment in the subsequent fiscal year.

Sec. 27-121. Outdoor area lighting (dusk to dawn) rate.

- (d) *Outdoor area lighting.* Underground wire and conduit shall be installed and maintained by the customer for private street lighting for outdoor area (dusk to dawn) lighting. In addition to the one-time pole charge identified in section 27-121 (c), the following rates shall apply for each light:

Lumen Range Charge per Month

7,000 to 11,000 ~~\$6.00~~ 9.94 per light
25,000 to 30,000 ~~12.97~~ 21.48 per light
42,000 to 52,000 ~~15.57~~ 25.78 per light
7,000 to 11,000 Post-top Luminaire ~~9.72~~ 16.10 per light



Sec. 27-121.1. Special outdoor lighting.

c) *Monthly rate charge.* The monthly rate per kilowatt hour shall be as follows, subject to ~~fuel adjustments~~ power cost adjustment as provided in section 27-118:

Customer charge	\$56.10
Cost per Kwh	12.74 <u>13.37</u> cents per kwh

Fiscal Impact

Short-Term Impact: Increase annual electric revenue approximately \$8,300,000.00
Long-Term Impact: Annual revenue increase in electric utility of approximately \$8,300,000.00.

Strategic& Comprehensive Plan Impact

Strategic Plan Impacts:
Primary Impact: Reliable Infrastructure, Secondary Impact:Organizational Excellence, Tertiary Impact:Not Applicable

Comprehensive Plan Impacts:
Primary Impact: Infrastructure, Secondary Impact: Not applicable, Tertiary Impact: Not Applicable

Legislative History

Date	Action
None	

Suggested Council Action

Approval of the ordinance.