




# CITY OF COLUMBIA, MISSOURI

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WATER AND LIGHT DEPARTMENT  
COLUMBIA TERMINAL RAILROAD

## MEMORANDUM

**TO:** Water and Light Advisory Board

**FROM:** Tad Johnsen, Water and Light Director 

**DATE:** July 23, 2014

**SUBJECT:** Proposed FY15 Electric Rates

A two percent revenue increase is proposed for the electric utility to cover increases in operation and maintenance expenses. The electric utility utilizes cost-of-service analysis as a consideration in rate design. Cost-of-service analysis has shown that our current monthly customer charge for the electric utility is insufficient in recovering costs. The customer charge is designed to recover costs that are not impacted by the amount of usage. These costs include meter reading, billing, customer service department, meter maintenance, customer service facilities, and a portion of the distribution system. Cost-of-service analysis serves to guide a cost structure that results in rates that match the cost to serve for each customer. If these costs are not equitably recovered from each customer, different customer rate classes and customers within the same rate classes are subsidizing those that are not covering their cost of service.

The proposed FY15 electric rate changes address the need to establish the proper customer charge. While revenue from each rate class (residential, small general service, large general service, and industrial) will be two percent, the impact on individual customers within a rate class will vary. In the residential and small general service rate classes, small use customers will see the largest percent increase. An effort has been made to minimize the impact on low use customers by establishing rate blocks that are lower cost than the previous rate. For example, the first 300 kWh of usage by residential customers will be almost two cents less expensive than under the current rate. While customers that only use 100 kWh per month will see a 23.4% increase, customers that use 300 kWh per month will only see a 0.7% increase. For the "average" residential customer (around 800 kWh per month) the increase will be 1.4%.

This change will impact low usage customers but not necessarily low income customers. A review of the usage pattern of customers that have participated in utility

programs based on income level shows that their monthly usage exceed 300 kWh and often are closer to, or above, the average usage. The change is equitable and will eliminate the current subsidy provided by other customers to those with low usage.

The following information provides detail of the change proposed for each rate.

1. Residential Electric without Electric Heating
  - a. Customer Charge from \$8.45 to \$14.60.
    - i. Customer Charge covers services not associated with usage, meter reading, billing, future replacement of metering and service and part of the distribution system. Results from 2012 cost-of-service analysis show that current customer charge is substantially below the required level. Proposed change will move the customer charge to the level needed.
  - b. Customer Charge for non-standard meters from \$13.45 per month to \$19.60 per month.
  - c. Eliminate the all season usage, first 750 kWh rate block and replace it with two blocks.
    - i. All season usage, first 300 kWh part of the existing 750 kWh block, from \$0.0944 to \$0.0747 per kWh.
    - ii. All season usage, next 450 kWh part of the existing 750 kWh block, from \$0.0944 to \$0.0963 per kWh.
  - d. Summer usage, 751 kWh to 2,000 kWh, from \$0.1277 to \$0.1303 per kWh.
  - e. Summer usage, above 2,000 kWh, from \$0.1372 to \$0.1410 per kWh.
  - f. Non-summer usage, above 750 kWh, from \$0.1088 to \$0.1110 per kWh.
2. Residential Electric Heating
  - a. Same as Residential Electric without Electric Heating except
    - i. Non-summer usage, above 750 kWh, from \$0.083072 to \$0.085 per kWh.
3. Residential High Efficiency Heat Pump
  - a. Same as Residential Electric without Electric Heating except
    - i. Non-summer usage, above 750 kWh, from \$0.08024 to \$0.082 per kWh.
    - ii. Customers under this rate must meet standards of insulation and efficiency and allow installation of a load management switch.
4. Small General Service Electric Without Electric Heating
  - a. Customer Charge from \$8.45 to \$14.60 for single-phase service.
  - b. Customer Charge from \$10.85 to \$20.00 for three-phase service.
  - c. Summer usage, eliminate the first 1,500 kWh rate block and replace it with two blocks.
    - i. Summer usage, first 500 kWh part of the existing 1,500 kWh block, from \$0.0944 to \$0.0765 per kWh.
    - ii. Summer usage, next 1,000 kWh part of the existing 1,500 kWh block, from \$0.0944 to \$0.0963 per kWh.

- d. Summer usage, above 1,500 kWh, from \$0.1277 to \$0.1303 per kWh.
  - e. Non-summer usage, establish a first 500 kWh rate block, at \$0.0765 per kWh.
  - f. Non-summer usage, above 500 kWh, from \$0.0944 to \$0.0963 per kWh.
5. Small General Service Electric Heating
- a. Same changes proposed for Small General Service Electric without Electric Heating except
    - i. Non-summer usage, 501 kWh to 1,500 kWh, from \$0.0944 to \$0.0963 per kWh.
    - ii. Non-summer usage, above 1,500 kWh, from \$0.08496 to \$0.087 per kWh.
6. Small General Service High Efficiency Heat Pump
- a. Same changes proposed for Small General Service Electric without Electric Heating except
    - i. Non-summer usage, 501 kWh to 1,500 kWh, from \$0.0944 to \$0.0963 per kWh
    - ii. Non-summer usage, above 1,500 kWh from \$0.08024 to \$0.082 per kWh.
    - iii. Customers under this rate must meet standards of insulation and efficiency. They also must allow installation of a load management switch.
7. Optional Demand Rate for Small General Service Customers
- a. Establish a Customer Charge of \$20.00 per month.
  - b. Summer demand charge, from \$15.29 to \$15.60 per kW.
  - c. Non-summer demand charge, from \$12.22 to \$12.50 per kW.
  - d. Summer usage, from \$0.05555 to \$0.0563 per kWh.
  - e. Non-summer usage from \$0.04828 to \$0.049 per kWh.
8. Interruptible Service Rate
- a. No change for Customer Charge or Demand Charge.
  - b. Summer usage, from \$0.0411 to \$0.043 per kWh.
  - c. Non-summer usage from \$0.0393 to \$0.0402 per kWh.
9. Large General Service Rate
- a. Establish a Customer Charge of \$45.00 per month.
  - b. Summer demand charge, from \$382.25 to \$360.00 for 25 kW.
  - c. Summer demand charge, above 25 kW, from \$15.29 to \$15.60 per kW
  - d. Non-summer demand charge, from \$305.50 to \$270.00 for 25 kW.
  - e. Non-summer demand charge, above 25kW, from \$12.22 to \$12.50 per kW.
  - f. Summer usage, from \$0.05555 to \$0.0563 per kWh.
  - g. Non-summer usage, from \$0.04828 to \$0.049 per kWh.
10. Industrial Rate
- a. Establish a Customer Charge of \$45.00 per month.
  - b. Summer demand charge, from \$14,962.50 to \$15,262.50 for 750 kW.
  - c. Summer demand charge, above 750 kW, from \$19.95 to \$20.35 per kW.
  - d. Non-summer demand charge, from \$11,970.00 to \$12,210.00, for 750 kW.
  - e. Non-summer demand charge, above 750 kW, from \$15.96 to \$16.28 per kW.

- f. Summer usage, from \$0.04456 to \$0.045 per kWh.
- g. Non-summer usage, from \$0.03819 to \$0.0385 per kWh.
- h. All off-peak usage, from \$0.030854 to \$0.03147 per kWh under the thermal storage rider.
- i. All off-peak usage, from \$0.031658 to \$0.03229 per kWh for qualified high load factor customers.

11. Street and Outdoor Area Lighting Rate

- a. Change rate to only charge for private streets and dusk-to-dawn lighting.

12. Special Outdoor Lighting Rate

- a. No change in Customer Charge.
- b. For all usage from \$0.11 per kWh to \$0.1135 per kWh

Rate changes are estimated to increase revenue by a total of \$2,405,000 of which \$168,000 is PILOT revenue and \$2,237,000 is utility revenue. From the estimated \$2,237,000 increased utility revenue, \$950,000 is from residential customers and \$1,287,000 from commercial and industrial customers. Staff is requesting Water & Light Advisory Board recommendation for Council to approve this rate increase.

**TAJ/cs**

Introduced by \_\_\_\_\_

First Reading \_\_\_\_\_

Second Reading \_\_\_\_\_

Ordinance No. \_\_\_\_\_

Council Bill No. \_\_\_\_\_

**AN ORDINANCE**

amending Chapter 27 of the City Code as it relates to electric rates; and fixing the time when this ordinance shall become effective.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. Chapter 27 of the Code of Ordinances of the City of Columbia, Missouri, is hereby amended as follows:

Material to be deleted in ~~strikeout~~; material to be added underlined.

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 as provided in section 27-118:

- (1) Customer charge ..... \$ ~~8.45~~ 14.60 per month
- Non-standard electric meter customer charge ..... ~~13.45~~ 19.60 per month

- (2) Energy charge

Summer:

- First ~~750-300~~ kwh ..... ~~\$9.44-7.47~~ cents per kwh
- Next 450 kwh ..... 9.63 cents per kwh
- Next 1,250 kwh ..... ~~12.77-13.03~~ cents per kwh
- All remaining kwh ..... ~~13.72-14.10~~ cents per kwh

Nonsummer:

- First ~~750-300~~ kwh ..... ~~9.44-7.47~~ cents per kwh

Next 450 kwh.....9.63 cents per kwh  
 All remaining kwh .....~~10.88~~11.1 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 ~~750~~300 kwh.....~~9.44~~7.47 cents per kwh  
Next 450 kwh .....9.63 cents per kwh  
 All remaining kwh .....~~8.3072~~8.5 cents per kwh

(d) *Minimum:* ~~The minimum monthly rate charge shall be eight dollars and forty-five cents (\$8.45)~~ fourteen dollars and sixty cents (\$14.60) ~~The minimum monthly rate charge for customers with a non-standard electric meter shall be nineteen dollars and sixty cents (\$19.60).~~

...

Sec. 27-113. Same--Residential heat pump rate.

...

(c) *Monthly rate charge:* The monthly rate charge shall be as follows, subject to fuel adjustments as provided in section 27-118:

Customer charge ..... \$ ~~8.45~~ 14.60 monthly  
 Non-standard electric meter customer charge .....~~13.45~~ 19.60 per month  
First 300 kwh.....7.47 cents per kwh  
Next 450 kwh .....9.63 cents per kwh  
 All kwh above 750 kwh.....~~8.024~~ 8.2 cents per kwh

The monthly rate would apply to permanently installed heat pumps for the non-summer season.

(d) *Minimum:* ~~The minimum monthly rate charge shall be eight dollars and forty-five cents (\$8.45)~~ fourteen dollars and sixty cents (\$14.60) ~~The minimum monthly rate~~

charge for customers with a non-standard electric meter shall be nineteen dollars and sixty cents (\$19.60).

...

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

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

(1) Customer charge:

Single-phase service.....\$ ~~8.45~~ 14.60 per month

Three-phase service .....~~10.85~~ 20.00 per month

(2) Energy charge:

Summer:

First ~~1500~~ 500 kwh .....~~9.44~~ 7.65 cents per kwh

Next 1,000 kwh.....9.63 cents per kwh

All remaining kwh .....~~12.77~~ 13.03 cents per kwh

Nonsummer:

First 500 kwh ..... 7.65 cents per kwh

All remaining kwh .....~~9.44~~ 9.63 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 ~~1,500~~ 500 kwh.....~~9.44~~ 7.65 cents per kwh

Next 1,000 kwh .....9.63 cents per kwh

All remaining kwh .....~~8.496~~ 8.7 cents per kwh

(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 <del>4,500</del> <u>500</u> kwh .....	<del>9.44</del> <u>7.65</u> cents per kwh
<u>Next 1,000 kwh</u> .....	<u>9.63</u> cents per kwh
All remaining kwh .....	<del>8.024</del> <u>8.2</u> cents per kwh

(f) *Minimum bill:* The minimum bill for single-phase service, shall be ~~eight dollars and forty five cents (\$8.45)~~ fourteen dollars and sixty cents (\$14.60) per month; for three-phase service, ~~ten dollars and eighty five cents (\$10.85)~~ twenty dollars (\$20.00) per month.

...

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

(1) Customer charge ..... \$20.00 per month

(2) Demand charge:

Summer ..... All kw at ~~\$15.29~~ 15.60 per kw

Non-Summer..... All kw at ~~\$12.22~~ 12.50 per kw

(2-3) Energy charge:

Summer ..... All kwh at ~~\$5.555~~ 5.63 cents per kwh

Non-Summer..... All kwh at ~~\$4.828~~ 4.9 cents per kwh

...

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

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

...

(3) Energy charge (per kilowatt hour):

Summer ..... ~~\$ 0.0414~~ 0.043



Non-Summer.....\$-0.0393 0.0402

...

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

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

(1) <u>Customer charge....</u>	<u>\$45.00 per month</u>	
	Summer	Non-Summer
(1-2) <i>Demand charge:</i>		
Minimum demand charge—25 kw or less....	<del>\$ 382.25</del> <u>360.00</u>	<del>\$ 305.50</del> <u>270.00</u>
All additional kw (per kw)....	<del>45.29</del> <u>15.60</u>	<del>12.22</del> <u>12.50</u>
(2-3) <i>Energy charge:</i>		
All kwh (per kwh)....	<del>0.05555</del> <u>0.0563</u>	<del>0.04828</del> <u>0.049</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 as provided in section 27-118:

(1) <u>Customer charge....</u>	<u>\$45.00 per month</u>	
	Summer	Non-Summer
(1-2) <i>Demand charge:</i>		
a. Minimum demand charge 750 kw or less....	<del>\$14,962.50</del> <u>15,262.50</u>	<del>\$11,970.00</del> <u>12,210.00</u>
b. All additional kw (per kw)....	<del>49.95</del> <u>20.35</u>	<del>15.96</del> <u>16.28</u>
(2-3) <i>Energy charge:</i>		
All kwh (per kwh)....	<del>0.04456</del> <u>0.045</u>	<del>0.03819</del> <u>0.0385</u>

...

(k) *Thermal storage rider.*

...

(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 ~~3.0854~~ 3.147 cents per kwh. Energy charged at this rate will be subject to the fuel adjustment allowance in section 27-118.

...

(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 ~~3.1658~~ 3.229 cents per kwh. Energy charged at this rate will be subject to the fuel adjustment allowance in section 27-118.

...

Sec. 27-121. ~~Street and outdoor~~ Outdoor area lighting (dusk to dawn) rate.

(a) *Availability.* The ~~street and outdoor~~ area lighting (dusk to dawn) rate is available to any customer within the area served by the city electric system for private street lighting and for outdoor area lighting (dusk to dawn) when such lighting facilities are unmetered and operated as an extension of the city's distribution system.

(b) *Type of service.* The city shall furnish, install, maintain and deliver electric service to automatically controlled lighting fixtures conforming to the department's standards, and subject to the published rules and regulations of the city water and light department.

(c) ~~Light and fixture rates: Light and fixture rates are as follows:~~

Size of lamp	Each, per month
<del>Standard pole bracket arm mounted</del>	
<del>100 watt high pressure sodium (H.P.S.).....</del>	<del>3.26</del>
<del>175 watt mercury vapor.....</del>	<del>4.76</del>
<del>250 watt mercury vapor.....</del>	<del>6.27</del>
<del>250 watt high pressure sodium.....</del>	<del>6.27</del>

400-watt high pressure sodium..... 9.28

400-watt mercury vapor..... 9.28

(c) When required for private street lighting or for outdoor area (dusk to dawn) lighting, a pole with one span of #6 aluminum wire, up to one hundred fifty (150) feet, and necessary pole line hardware and accessories, according to the following schedule:

Wood pole..... \$3.06 per month

Aluminum pole..... 11.26 per month

Steel pole..... 10.65 per month

(d) ~~Decorative post top luminaire.~~

~~400-watt high pressure sodium..... 3.26~~

~~175-watt mercury vapor..... 4.76~~

(e) ~~Non-standard light and fixture rates. Light and fixture rates are as follows:~~

~~Size of lamp Each, per month~~

~~150-watt high pressure sodium (H.P.S.)..... 4.26~~

~~175-watt metal halide (MH)..... 4.76~~

(f-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 pole charge identified in section 27-121(c), the following light and fixture rates shall apply:

...

Sec. 27-121.1. Special outdoor lighting.

...

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

Customer charge..... \$50.00

Cost per kwh..... ~~11.00~~ 11.35 cents per kwh

SECTION 2. The new rates established in this ordinance shall be applied to utility bills beginning with the first complete cycle billed after October 1, 2014.

SECTION 3. This ordinance shall be in full force and effect from and after its passage.

PASSED this \_\_\_\_\_ day of \_\_\_\_\_, 2014.

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor and Presiding Officer

APPROVED AS TO FORM:

\_\_\_\_\_  
City Counselor