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Staff's Second Set Rehearing Data Requests

Date Received: July 17, 2020

STAFF-RHDR-02-001

**REQUEST:** 

Refer to Duke Kentucky's response to Commission Staff's Third Request for Information,

Item 5. For each component of the Levelized Fixed Cost Rate, explain why customers

choosing to pay for additional facilities monthly should be responsible for each component,

and explain why a customer choosing to pay upfront for additional facilities should not be

responsible for each component.

**RESPONSE:** 

The Commercial Activity Tax listed in the response to Commission Staff's Third Request

for Information Item 5 was included in error. See response to STAFF-RHDR-02-014 for

the revised calculation. All other components listed are expenses that the Company would

incur, including the allowed rate of return that is included in the normal rate making

process. If not collected from the lighting customer causing the need for or requesting the

additional facilities, then these costs would be collected from other customers. Since the

Company is not investing capital if the customer pays up front, then most of these costs

would not be incurred. An argument could be made that the Property Taxes and Insurance

costs would still be incurred, but these costs are relatively small, so for the sake of

simplicity, customers who choose to pay up front are just asked to pay the cost of the

additional facilities.

PERSON RESPONSIBLE:

Jeff L. Kern

Staff's Second Set Rehearing Data Requests

Date Received: July 17, 2020

STAFF-RHDR-02-002

**REQUEST:** 

Refer to Duke Kentucky's response to Commission Staff's First Rehearing Request for

Information (Staff's First Rehearing Request), Items 2 and 5(c), Attachment 2.

a. Explain why the capital budget does not include "Capital Challenge" amounts while

the capital additions do include "Capital Challenge" amounts.

b. Refer also to Duke Kentucky's response to Commission Staff's Second Request for

Information (Staff's Second Request), Item 8, Attachment. Confirm that "Capital

Challenge" is budgeted at \$5 million per calendar year. If this cannot be confirmed,

provide the "Capital Challenge" amount budgeted for 2019 and 2020.

**RESPONSE:** 

a. The capital expenditures budget does include "Capital Challenge" amounts. Those

amounts are included within "Normal Recurring Construction" as shown on

STAFF-RHDR-01-002 Attachment.

b. Confirmed.

PERSON RESPONSIBLE:

Christopher Jacobi

**Staff's Second Set Rehearing Data Requests** 

Date Received: July 17, 2020

STAFF-RHDR-02-003

**REQUEST:** 

Refer to Duke Kentucky's response to Staff's First Rehearing Request, Item 2, Attachment.

Using the same format, provide the forecasted Construction Work in Progress (CWIP)

amounts at December 31, 2019, and December 31, 2020.

**RESPONSE:** 

Please see STAFF-RHDR-02-003 Attachment.

PERSON RESPONSIBLE:

Christopher Jacobi

# Duke Energy Kentucky, Inc. Case No. 2019-00271 Construction Work in Process Balances Years 2019 - 2020

Line No.	Project ID/Description	CWIP Balance @ 12/31/19	CWIP Balance @ 12/31/20
1 2	NORMAL RECURRING CONSTRUCTION	19,198,404	23,397,804
3	EB021409 - U2 Lime Injection System	0	0
4	EB020860 - Convert Pozotec from Waste to Paste	0	0
5	Woodsdale - New Generation	0	17,224,732
6	WDC00004 - Install Fuel Oil System (Woodsdale)	0	0
7	Battery Storage Facility	0	0
8	Solar Generation Facility	0	0
9	M180077 - Aero Transmission Supply	7,545,716	0
10	DKY2016 - Donaldson Substation	0	0
11	ESM - EB021281 East Bend Landfill Cell 2	17,692,808	0
12	ESM - EB020745 Lined Retention Basin East	10,555,852	0
13	ESM - EB020298 East Bend SW/PW Reroute	0	0
15	TOTAL	54,992,780	40,622,536

Staff's Second Set Rehearing Data Requests

Date Received: July 17, 2020

STAFF-RHDR-02-004

**REQUEST:** 

Refer to Duke Kentucky's response to Staff's First Rehearing Request, Items 4 and 5(c),

Attachment 2, Duke Kentucky's response to Staff's Second Request, Items 6 and 7, and

the application, Schedule B-2.2, pages 1 and 2 of 2. Explain why the adjustments to remove

assets recovered through Duke Kentucky's Environmental Surcharge Mechanism (ESM)

are included in Account 311 if Duke Kentucky included the additions during the base and

forecasted period in "Completed Construction Not Classified."

**RESPONSE:** 

The adjustment to remove assets recovered through Duke Kentucky's Environmental

Surcharge Mechanism (ESM) for the base period was made to Account 311 because the

\$41,089,898 represents the actual balances in projects EB020290 (\$10,604,187) and

EB020298 (\$30,485,712) as of May 31, 2019, which was the last actual month of the base

period. These are the amounts that were included in the Company's ESM filing for the

expense month of May 2019 and were recorded to Account 311 in the Company's books.

There were no forecasted ESM additions for June 2019 through the end of the base period,

November 2019.

In the application, the adjustment of \$69,086,352 for the forecasted period was

made to Account 311 because that is where capital expenditures related to environmental

projects are recorded. It would have been more accurate to adjust Account 311 in the

forecasted period by \$41,089,898 and then also adjust Completed Construction Not

Classified (CCNC) by \$27,996,454, for a total adjustment of \$69,086,352. The Company's

approach of reflecting the entire adjustment as a decrease to Account 311 resulted in lower

forecasted period depreciation expense in the application and as a result, a lower requested

revenue requirement increase. This is because the depreciation accrual rate for Account

311 (3.63%) was higher than the rate for Steam Production CCNC (2.95%).

PERSON RESPONSIBLE:

Christopher Jacobi

Staff's Second Set Rehearing Data Requests

Date Received: July 17, 2020

STAFF-RHDR-02-005

**REQUEST:** 

Refer to Duke Kentucky's response to Staff's First Rehearing Request, Item 7.

a. Explain how Duke Kentucky forecasted Allowance for Funds Used During

Construction (AFUDC) amounts included in plant in service during the base and

forecasted test periods.

b. Explain how Duke Kentucky forecasted CWIP amounts during the base and

forecasted period.

c. Provide the ratio of debt and equity used to compute AFUDC in the base and

forecasted test periods.

d. Provide the average CWIP balance in 2018 and in 2019 used to calculate the

AFDUC balance attributable to normal recurring construction for each of those

years as shown in the table attached at Tab 27 of the Application.

e. Provide an Excel spreadsheet, unlocked with formulas intact, showing how

AFDUC balances attributable to normal recurring construction in 2018 and 2019,

as shown in the table attached at Tab 27 of the application, were calculated from

the average CWIP balance for normal recurring construction in each of those years.

**RESPONSE:** 

a. AFUDC amounts included in plant in service during the base and forecasted test

period are calculated by applying AFUDC equity and AFUDC debt rates to

calculated spend balances on a monthly basis. The forecasted AFUDC rates are updated regularly and are based on historical 12-month averages. The entire CWIP balance does not accrue AFUDC. CWIP balances related to short-duration, high turnover construction activities do not accrue AFUDC. These AFUDC amounts are added to plant in service, along with accumulated direct construction spend, as a part of plant additions when the related construction activity is forecasted to be complete. Refer to illustration of AFUDC calculation at STAFF-RHDR-02-005 Attachment.

- b. CWIP balances in the base and forecasted period are calculated as cumulative capital spend not yet closed to plant in service plus the related cumulative AFUDC amounts on that capital spend.
- c. The ratio of debt and equity used in the 12-month historical average calculation of AFUDC rates was 46.4% debt and 53.6% equity.
- d. The average CWIP balance for normal recurring construction in 2019 and 2020 is \$35,164,788 and \$19,940,295, respectively.
- e. The company's forecasting process is to calculate AFUDC on all CWIP balances, other than those expenditures related to certain short-duration activity or expenditures related to ESM projects which are not forecasted to accrue AFUDC, and then to allocate a portion of that total AFUDC to major projects as appropriate for reporting purposes, with the remainder attributable to normal recurring construction. Please see STAFF-RHDR-02-005 Attachment for calculation of total AFUDC and AFUDC attributable to normal recurring construction as reported at Tab 27 of the Application. Please note that the rate of actual AFUDC accrued as a

percentage of CWIP for a given period can vary as construction spend may accrue AFUDC on a monthly, quarterly, semi-annual, or annual basis.

**PERSON RESPONSIBLE:** Christopher Jacobi

	01/31/19	02/28/19	03/31/19	04/30/19	05/31/19	06/30/19	07/31/19	08/31/19	09/30/19	10/31/19	11/30/19	12/31/19	2019
Aggregate - AFUDC Eligible Spend:													
CWIP Beginning Balance	73,794,160	75,368,342	79,778,470	80,528,406	92,598,709	51,657,981	46,005,749	54,316,810	63,769,562	50,693,984	62,138,011	72,280,412	
Prior Period Cash Cap. Ex.	14,465,680	6,584,591	9,112,168	11,051,993	16,624,730	14,309,290	13,371,044	11,998,889	12,214,390	16,643,007	15,805,311	13,767,095	
50%	(7,232,840)	50%	50% (4,556,084)	50% (5,525,996)	50% (8,312,365)	50% (7,154,645)	50% (6,685,522)	50% (5,999,445)	50% (6,107,195)	50% (8,321,504)	50% (7,902,656)	(6,883,548)	
Current Period Closings	(5,328,085)	(5,039,474)	(10,642,811)	(4,911,993)	(55,532,282)	(19,212,786)	(3,889,047)	(2,995,087)	(29,941,341)	(4,582,540)	(3,886,920)	(57,431,216)	
AFUDC Base for Calculation	61,233,235	67,036,572	64,579,575	70,090,417	28,754,062	25,290,550	35,431,180	45,322,278	27,721,027	37,789,940	50,348,435	7,965,649	
AFUDC Debt:													
AFUDC Debt Rate	0.178%	0.173%	0.181%	0.175%	0.337%	0.257%	0.195%	0.177%	0.276%	0.201%	0.179%	0.798%	4 000 000
AFUDC Debt, Calculated	108,947	115,723	116,862	122,627	96,802	64,992	69,008	80,061	76,394	75,880	89,930	63,577	1,080,803
AFUDC Equity:													
AFUDC Equity Rate AFUDC Equity, Calculated	0.341% 208,729	0.331% 221,711	0.347% 223,893	0.335% 234,938	0.645% 185,462	0.492% 124,517	0.373% 132,211	0.338% 153,388	0.528% 146,361	0.385% 145,376	0.342% 172,296	1.529% 121,805	2,070,689
Al ODE Equity, Calculated	200,723	221,711	223,033	234,330	103,402	124,317	132,211	155,500	140,301	143,370	172,230	121,003	2,070,003
AFUDC Total	317,676	337,434	340,755	357,565	282,264	189,509	201,219	233,450	222,755	221,256	262,227	185,382	3,151,492
								<u> </u>	Illocated to Ma	jor Projects at T	ab <u>27</u>		1,593,739
								<u> </u>	attributable to N	Normal Recurrin	ng Construction		1,557,753
	01/31/20	02/29/20	03/31/20	04/30/20	05/31/20	06/30/20	07/31/20	08/31/20	09/30/20	10/31/20	11/30/20	12/31/20	2020
Aggregate - AFUDC Eligible Spend:													
CWIP Beginning Balance	26,744,120	30,760,736	35,796,895	36,173,115	44,189,476	51,854,885	47,362,997	56,076,148	65,069,522	65,848,917	74,222,805	81,455,294	
Prior Period Cash Cap. Ex.	11,704,808	7,070,944	8,019,053	10,027,753	11,776,139	11,717,294	12,673,874	11,206,580	11,108,321	10,773,253	10,365,582	9,528,285	
50%	50%	50%	50%	50%	50%	50%	50%	50% (5,603,290)	50% (5,554,160)	50%	50%	50%	
	(5,852,404)	(3,535,472)	(4,009,526)	(5,013,877)	(5,888,069)	(5,858,647)	(6,336,937)	(5,603,290)	(5,554,160)	(5,386,626)	(5,182,791)	(4,764,142)	
Current Period Closings	(3,166,862)	(3,113,540)	(9,791,105)	(3,941,523)	(4,268,018)	(17,387,977)	(2,732,582)	(2,396,189)	(10,304,523)	(2,334,344)	(2,677,515)	(50,756,824)	
AFUDC Base for Calculation	17,724,854	24,111,724	21,996,264	27,217,715	34,033,389	28,608,262	38,293,478	48,076,669	49,210,838	58,127,947	66,362,499	25,934,328	
AFUDC Debt:													
AFUDC Debt Rate						0.0050/	0.4000/	0.1710/	0.184%	0.1720/	0.168%	0.331%	
AFUDC Debt, Calculated	0.227%	0.186%	0.218%	0.195%	0.185%	0.226%	0.182%	0.171%	0.164%	0.172%	0.100%	0.33170	
	40,228	0.186% 44,805	0.218% 47,866	0.195% 52,973	62,996	64,768	69,706	81,973	90,549	99,872	111,259	85,787	852,783
AFUDC Equity:													852,783
AFUDC Equity Rate	40,228 0.435%	44,805 0.356%	47,866 0.417%	52,973 0.473%	62,996 0.450%	64,768 0.550%	69,706 0.442%	81,973 0.414%	90,549	99,872 0.418%	111,259 0.408%	85,787 0.804%	
	40,228	44,805	47,866	52,973	62,996	64,768	69,706	81,973	90,549	99,872	111,259	85,787	852,783 2,004,553
AFUDC Equity Rate	40,228 0.435%	44,805 0.356%	47,866 0.417%	52,973 0.473%	62,996 0.450%	64,768 0.550%	69,706 0.442%	81,973 0.414%	90,549	99,872 0.418%	111,259 0.408%	85,787 0.804%	
AFUDC Equity Rate AFUDC Equity, Calculated	0.435% 77,071	0.356% 85,841	0.417% 91,706	52,973 0.473% 128,773	0.450% 153,137	0.550% 157,446	0.442% 169,447	0.414% 199,269 281,242	90,549 0.447% 220,117	99,872 0.418% 242,778 342,650	0.408% 270,460 381,720	0.804% 208,509	2,004,553

Staff's Second Set Rehearing Data Requests

Date Received: July 17, 2020

STAFF-RHDR-02-006

**REQUEST:** 

Refer to Duke Kentucky's response to Staff's First Rehearing Request, Item 8. Using the

same format, provide the CWIP balance as of December 31, 2019.

**RESPONSE:** 

Please see STAFF-RHDR-02-006 Attachment.

PERSON RESPONSIBLE:

Christopher Jacobi

## Duke Energy Kentucky CWIP Balances at December 31, 2019

Elec - Steam Production Plant	
BA - Fossil Steam Plants	1,225,401
BD - Environmental Fossil Plants	81,194
B4 - Fossil Ash Basin Initiative	28,253,129
	29,559,725
Elec - Other Production Plant	
BG - Other Production Plant	-
Elec - Transmission Plant	
FF - Transmission Stations	4,083,918
GG - Transmission Lines	933,400
	5,017,318
Elec - Distribution Plant	
HB - Distribution Substation	9,890,855
HW - Distribution Highway Jobs	300,987
IK - Distrib Lines OH/UG (Line Ext)	2,115,169
IO - Distribution Improvements	333,551
SG - Smart Grid - General	1,854,897
TB - Equipment & Tools	3,332
	14,498,791
Elec - General & Intangible Plant	
IO - Distribution Improvements	6,387
TB - Equipment & Tools	146,453
TD - Office Equipment	528,873
TD - Other - Office Equipment	2,063
VS - Intangible Plant - Software	5,233,171
	5,916,947
Total	54,992,780

**Staff's Second Set Rehearing Data Requests** 

Date Received: July 17, 2020

STAFF-RHDR-02-007

**REQUEST:** 

Refer to Duke Kentucky's response to Staff's First Rehearing Request, Item 9. Explain

the advantages and disadvantages to a customer of choosing the monthly payment option

for additional facilities over paying for the additional facilities upfront or taking service

under Rate OL-E.

**RESPONSE:** 

The advantage to a customer of choosing the monthly payment option is that there is no

upfront cost to the customer. In addition, this option has an advantage over Rate OL-E in

that there would be no additional cost to the customer if the equipment needed to be

replaced, even if it reaches the end of its useful life. While it is true that if the LED system

is kept in place long enough, the ultimate cost could be greater than either the upfront

option or the monthly option under Rate OL-E, again, the customer is insulated from

replacement costs if the fixtures become damaged or broken.

PERSON RESPONSIBLE:

Jeff L. Kern

Staff's Second Set Rehearing Data Requests

Date Received: July 17, 2020

STAFF-RHDR-02-008

**REQUEST:** 

Refer to Duke Kentucky's response to Staff's First Rehearing Request, Item 9. Indicate

whether Duke Kentucky would inform customers of all options available to them to pay

for any necessary additional facilities when they apply for service, including the advantages

and disadvantages of each, if the original proposal is approved as filed.

**RESPONSE:** 

Duke Energy provides customers with information regarding all options available to them

and directs customers to the published tariffs so they can review that information on their

own while doing their due diligence, including informing customers that they have the

option to purchase their own equipment from third parties.

PERSON RESPONSIBLE:

Jeff L. Kern

**Staff's Second Set Rehearing Data Requests** 

Date Received: July 17, 2020

STAFF-RHDR-02-009

**REQUEST:** 

Refer to Duke Kentucky's response to Staff's First Rehearing Request, Item 11. If the

original proposal was approved as filed, indicate whether a customer could pay part of the

costs of the additional facilities upfront in order to lower their monthly payment.

**RESPONSE:** 

There is no option for partial payments of additional facilities in Rate LED since it would

create a significant administrative burden and customers have no shown a desire for more

payment choices beyond 100% upfront or 100% monthly payments.

PERSON RESPONSIBLE:

Jeff L. Kern

**Staff's Second Set Rehearing Data Requests** 

Date Received: July 17, 2020

STAFF-RHDR-02-010

**REQUEST:** 

Refer to Duke Kentucky's response to Staff's First Rehearing Request, Item 11. Indicate

any other monthly charges customers who chose to pay for the additional facilities upfront

or through the monthly payment option would be responsible for under Rate LED.

**RESPONSE:** 

The customer would also be paying the monthly fee as listed in the tariff for the lighting

equipment (fixtures, poles, pole foundations, brackets and wiring) for which the additional

facilities are required.

PERSON RESPONSIBLE:

Jeff L. Kern

**Staff's Second Set Rehearing Data Requests** 

Date Received: July 17, 2020

STAFF-RHDR-02-011

**REQUEST:** 

Refer to Duke Kentucky's response to Staff's First Rehearing Request, Item 13. Under the

original proposal, if the additional facilities are replaced, indicate whether the customer's

monthly payment amount would be adjusted. If so, indicate how it would be adjusted. If

not, explain why not.

**RESPONSE:** 

If the additional facilities require replacement, the equipment would be replaced with no

adjustment to the customer's monthly payment.

PERSON RESPONSIBLE:

Jeff L. Kern

Staff's Second Set Rehearing Data Requests

Date Received: July 17, 2020

STAFF-RHDR-02-012

**REQUEST:** 

Explain how the monthly payment option for additional facilities under Rate LED is

reflective of the costs associated with choosing that option.

**RESPONSE:** 

Please see response to STAFF-RHDR-02-001.

PERSON RESPONSIBLE:

Jeff L. Kern

**Staff's Second Set Rehearing Data Requests** 

Date Received: July 17, 2020

STAFF-RHDR-02-013

**REQUEST:** 

Explain how customers choosing to pay for additional facilities under Rate LED under the

monthly payment option would not be overpaying for the additional facilities compared to

a customer choosing to pay for the additional facilities upfront.

**RESPONSE:** 

The customer who is paying a monthly rate/charge is financing their procurement of the

lighting facilities over time through Duke Energy Kentucky and thus is paying for all the

various costs that the Company incurs if the customer chooses that payment option. (See

STAFF-RHDR-02-001 for additional information.) This is no different than any other

payment over time for any product. For example, a consumer who finances the purchase

of a vehicle, furniture, or electronics over time, would avoid the upfront capital cost and in

return will ultimately pay more through interest for the item than a customer who pays the

total cost up front. This is common practice and not considered "overpaying" by the

customer who chooses to pay monthly rather than upfront. For customers who elect to pay

for the lighting assets over time, they are deferring payments over time, but Duke Energy

Kentucky is making that capital investment on behalf of the customer, and should earn a

return for that investment. This is no different than how the Company's legacy street

lighting tariffs work. It is important to note that the monthly payment option is a choice

provided to the customer. Any customer who feels that they would be overpaying by

choosing the monthly payment option is welcome to chose to pay upfront instead.

Eliminating this option will only force all customers to pay upfront regardless of their own

preference or financial situation.

PERSON RESPONSIBLE:

Jeff L. Kern

Staff's Second Set Rehearing Data Requests

Date Received: July 17, 2020

STAFF-RHDR-02-014

**REQUEST:** 

Refer to Duke Kentucky's response to Staff's First Rehearing Request, Item 14, STAFF-

RHDR-01-014\_Attachment.xlsx.

a. Refer to tab Proposed Rates.

1) Provide support for the 3.73 percent adder for minor materials.

2) Provide support for the 11.00 percent adder for Stores, Freight, and

Handling.

3) Provide support for the 0.3 labor time.

4) Provide support for the 0.4 set up overheads time.

5) Provide support for the 24.14 percent fleet indirect adder.

6) Provide support for the 36.41 percent management and supervision adder.

b. Refer to Tab LFCR per Order. Provide support for the Federal and State Composite

Income Tax Rate.

**RESPONSE:** 

a. 1) The 3.73% for minor materials represents costs that cannot be reasonably

charged to individual projects, such as nuts, bolts and screws. The percent

was estimated based on Material Allocations divided by Total Direct

Material/Inventory Cost for the YTD July 2019. (57,668 / 1,546,425 =

0.0373).

- 2) The 11% adder for stores, freight and handling represents costs associated with inventory storerooms including supply chain labor, freight, material handlers and operating expenses of the storeroom. This percent represents the adder to allocate charges of the storerooms operating expenses while allowing 5% of the inventory balance to remain on the balance sheet (per FERC) representing costs of inventory still on hand December 31 of each year per Jurisdiction. The percent and balance are monitored monthly by Finance and adjusted accordingly to keep our allowed amount within guidance.
- This was based on the average installation time per experienced personnel on the Lighting Standards team.
- 4) This was based on the average set up time per experienced personnel on the Lighting Standards team.
- 5) The 24.14% fleet indirect adder represents annualized costs associated with vehicles, machines, handler, etc. Please see STAFF-RHDR-02-014(a) Attachment.
- 6) The management and supervision adder used in the calculation of rates for Rate LED was actually 34.61% rather than 36.41% and represents annualized costs of certain work groups which provide overall support for which direct charging of activities are impractical or impossible. Please see STAFF-RHDR-02-014(a) Attachment.

b. In preparing this response it was discovered that the Federal and State Composite

Income Tax Rate used in the calculation of the LFCR for Rate LED was incorrect.

In addition, the calculation inadvertently included the Commercial Activity Tax,

which is exclusive to Ohio. Please see STAFF-RHDR-02-14(b) Attachment 1, page

1 for the calculation of the Federal and State Composite Income Tax Rate; STAFF-

RHDR-02-14(b) Attachment 1, page 2 for the recalculation of the LFCR; and

STAFF-RHDR-02-14(b) Attachment 1, page 3 for the recalculation of the monthly

rates for Rate LED. STAFF-RHDR-02-14(b) Attachment 2 is the revised tariff

sheet with the corrected rates.

PERSON RESPONSIBLE:

Jeff L. Kern

## Duke Energy Kentucky Street Light Labor Loading Factors 2019

1 Base labor (per Human Resources)			39.64
2 3 Unproductive	Line 1 x	28.0%	11.10
4 Incentives	(Line 1 + Line 3) x	3.0%	1.52
5 Fringes and PR Tax	(Line 1 + Line 3 + Line 4) x	33.6%	17.58
6	,		
7 Subtotal	Sum(Line 1 : Line 5)		69.83
8			
9 Fleet (per Fleet Services)	Line 1 x	42.5%	16.86
10			
11 Loaded Labor w/Fleet	Line 7 + Line 9		86.69
12			
13			
14 Indirects	Line 11 x	27.9%	24.17
15 Engr	Line 11 x	12.7%	10.97
16 Setup	Line 11 x	0.0%	-
17			
18 Direct Labor	Line 1		39.64
19 Loaders	Lines 3 + 4 + 5 + 9 + 14 + 15 + 16		82.20
20 Total Cost	Line 18 + Line 19		121.84
21		_	
22			
23 Fleet Indirect Adder	Line 9 / Line 7		24.14%
24			
25 Management & Supervision Adder	Line 14 / Line 7		34.61%

### **DUKE ENERGY KENTUCKY, INC**

#### Calculation of Federal and State Composit Income Tax Rate

1	Income before Income Tax	100.00%
2		
3	Kentucky State Income Tax Rate	5.00%
4		
5	Apportionment Factor	99.37%
6		
7	Income Taxes - State of Kentucky (Line 3 x Line 5)	4.97%
8		
9	Income Before Federal Income Tax (Line 1 - Line 7)	95.03%
10		
11	Federal Income Tax (21% x Line 9)	19.96%
12		
13	Federal and State Composit Income Tax Rate (Line 7 + Line 11)	24.93%

### **DUKE ENERGY KENTUCKY, INC**

Calculation of DEK's Levelized Fixed Charge Rate
Revised Federal and State Composit Income Tax Rate

For Lighting Pl	ant With	A 10 Year Life		Approved Capita	al Structure	
		LFCR Components		Rate of Re	eturn	
Rate	Symbol	Description			Capital	Weighted
6.41%	r	Rate of Return (Cost of Capital)		Cost Rate	<u>Ratio</u>	Cost
10.00%	D	Depreciation Rate				
0.478%	Α	Property Tax Rate				
0.009%	Р	Property Insurance Rate	Long Term (	Debt 4.030%	45.931%	1.851%
24.930%	Т	Federal and State Composite Income Tax Rate	Short Term	Debt 1.710%	5.835%	0.100%
1.68%	i	Synchronized Interest Deduction	Preferred St	tock 0.000%	0.000%	0.000%
7.44%	d	Sinking Fund Depreciation Rate	Common Ed	quity 9.250%	48.234%	<u>4.462%</u>
0.000%	g	Commercial Activity Tax	ITC	0.000%	0.000%	
			Deferred Ta	xes 0.000%	0.000%	
10	N	Service Life			<u>100.000%</u>	<u>6.413%</u>
		LFCR = $(1)[(r + A + P + d) + ((T)(r + d - D)(r-i))]$				
		1-g 1-T r				
		LFCR =	<u>15.28%</u>			

0.0385 r+d-D 1 1/(1-G) 0.332090049 T/(1-T) 0.738499922 (r-i)/r 0.1433955 r+A+P+d 0.0000 check total

#### For Lighting Plant With A 15 Year Life

#### LFCR Components

Rate	Symbol	Description
6.41%	r	Rate of Return (Cost of Capital)
6.67%	D	Depreciation Rate
0.478%	Α	Property Tax Rate
0.009%	Р	Property Insurance Rate
24.930%	T	Federal and State Composite Income Tax Rate
1.68%	i	Synchronized Interest Deduction
4.16%	d	Sinking Fund Depreciation Rate
0.000%	g	Commercial Activity Tax
15	N	Service Life
		LFCR = $(1)$ [(r + A + P + d) + $((T)$ (r + d - D) $(r-i)$ )] 1-g 1-T r

LFCR =

<u>12.02%</u>

0.0391 r+d-D 1 1/(1-G) 0.332090049 T/(1-T) 0.738499922 (r-i)/r 0.1105955 r+A+P+d

0.0000 check total

0.010017 Monthly option for Additional Equipment

# Duke Energy Kentucky Monthly Rate for New LED Equipment Proposed with Revised Federal and State Composit Income Tax Rate

							Crew				Design &			Total	
				Minor	Stores,	Total	Hourly			Fleet	Project	Mgmt &		Labor,	
				Materials	Freight,	Cost w/	Rate w/		Set Up	Indirect	Mgmt	Supervisn	Total	Material &	Monthly
	<u>Lumens</u>	<u>Watts</u>	<u>Cost</u>	<u>Adder</u>	<u>Handling</u>	<u>Material</u>	<u>Burden</u>	<u>Labor</u>	<u>Overheads</u>	Adder	Adder	Adder	Labor	Overhead	Rate
Fixtures (Not Included in Previous Tariff)				3.73%	11%			0.3	0.4	24.14%	15.71%	34.61%			<u>15.28%</u>
530W LED Shoebox	57,000	530	\$1,728.72	\$64.48	\$190.16	\$1,983.36	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$2,068.64	\$26.34
150W Clermont LED	12,500	150	\$1,636.82	\$61.05	\$180.05	\$1,877.92	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,963.20	\$25.00
130W Flood LED	14,715	130	\$512.92	\$19.13	\$56.42	\$588.47	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$673.75	\$8.58
260W Flood LED	32,779	260	\$850.00	\$31.70	\$93.50	\$975.20	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,060.48	\$13.50
50W Monticello LED	4,157	50	\$1,068.37	\$39.85	\$117.52	\$1,225.74	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,311.02	\$16.69
50W Mitchell Finial	5,678	50	\$1,008.93	\$37.63	\$110.98	\$1,157.54	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,242.82	\$15.83
50W Mitchell Ribs, Bands, and Medallions LED	5,678	50	\$1,119.15	\$41.74	\$123.11	\$1,284.00	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,369.28	\$17.44
50W Mitchell Top Hat LED	5,678	50	\$1,008.93	\$37.63	\$110.98	\$1,157.54	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,242.82	\$15.83
50W Mitchell Top Hat with Ribs, Bands, and Medallions LED	5,678	50	\$1,119.15	\$41.74	\$123.11	\$1,284.00	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,369.28	\$17.44
50W Open Monticello LED	4,157	50	\$1,063.42	\$39.67	\$116.98	\$1,220.06	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,305.34	\$16.62
Poles (Not Included in Previous Tariff)															<u>12.02%</u>
15' Style A - Fluted - for Shroud - Aluminum Direct Buried Pole			\$363.06	\$13.54	\$39.94	\$416.54	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$501.81	\$5.03
20' Style A - Fluted - for Shroud - Aluminum Direct Buried Pole			\$413.56	\$15.43	\$45.49	\$474.48	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$559.75	\$5.61
15' Style A - Smooth - for Shroud - Aluminum Direct Buried Pole			\$214.67	\$8.01	\$23.61	\$246.29	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$331.57	\$3.32
20' Style A - Smooth - for Shroud - Aluminum Direct Buried Pole			\$375.34	\$14.00	\$41.29	\$430.63	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$515.91	\$5.17
Shroud - Standard Style for anchor base poles			\$136.49	\$5.09	\$15.01	\$156.59	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$241.87	\$2.42
Shroud - Style B Pole for smooth and fluted poles			\$124.09	\$4.63	\$13.65	\$142.37	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$227.64	\$2.28
Shroud - Style C Pole for smooth and fluted poles			\$116.06	\$4.33	\$12.77	\$133.16	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$218.44	\$2.19
Shroud - Style D Pole for smooth and fluted poles			\$130.32	\$4.86	\$14.33	\$149.51	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$234.79	\$2.35
Pole Foundations															<u>12.02%</u>
Flush - Pre-fabricated - Style A Pole			\$815.66	\$30.42	\$89.72	\$935.81	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,021.08	\$10.23
Flush - Pre-fabricated - Style B Pole			\$728.20	\$27.16	\$80.10	\$835.46	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$920.74	\$9.22
Flush - Pre-fabricated - Style C Pole			\$868.49	\$32.39	\$95.53	\$996.42	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,081.70	\$10.84
Flush - Pre-fabricated - Style E Pole			\$815.66	\$30.42	\$89.72	\$935.81	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,021.08	\$10.23
Flush - Pre-fabricated - Style F Pole			\$728.20	\$27.16	\$80.10	\$835.46	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$920.74	\$9.22
Flush - Pre-fabricated - Style D Pole			\$706.82	\$26.36	\$77.75	\$810.93	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$896.21	\$8.98
Reveal - Pre-fabricated - Style A Pole			\$871.16	\$32.49	\$95.83	\$999.49	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,084.76	\$10.87
Reveal - Pre-fabricated - Style B Pole			\$935.91	\$34.91	\$102.95	\$1,073.77	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,159.05	\$11.61
Reveal - Pre-fabricated - Style C Pole			\$935.65	\$34.90	\$102.92	\$1,073.47	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,158.74	\$11.61
Reveal - Pre-fabricated - Style D Pole			\$935.65	\$34.90	\$102.92	\$1,073.47	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,158.74	\$11.61
Reveal - Pre-fabricated - Style E Pole			\$935.65	\$34.90	\$102.92	\$1,073.47	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,158.74	\$11.61
Reveal - Pre-fabricated - Style F Pole			\$808.36	\$30.15	\$88.92	\$927.44	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,012.71	\$10.14
Screw-in Foundation			\$421.85	\$15.74	\$46.40	\$483.99	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$569.27	\$5.70

<u>Brackets</u>													12.02%
14 inch bracket - wood pole - side mount	\$44.08	\$1.64	\$4.85	\$50.57	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$135.85	\$1.36
4 foot bracket - wood pole - side mount	\$53.20	\$1.98	\$5.85	\$61.03	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$146.31	\$1.47
6 foot bracket - wood pole - side mount	\$42.54	\$1.59	\$4.68	\$48.81	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$134.08	\$1.34
8 foot bracket - wood pole - side mount	\$114.31	\$4.26	\$12.57	\$131.15	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$216.42	\$2.17
10 foot bracket - wood pole - side mount	\$316.07	\$11.79	\$34.77	\$362.63	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$447.91	\$4.49
12 foot bracket - wood pole - side mount	\$235.21	\$8.77	\$25.87	\$269.86	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$355.14	\$3.56
15 foot bracket - wood pole - side mount	\$302.10	\$11.27	\$33.23	\$346.60	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$431.88	\$4.33
4 foot bracket - metal pole - side mount	\$380.21	\$14.18	\$41.82	\$436.21	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$521.49	\$5.22
6 foot bracket - metal pole - side mount	\$411.53	\$15.35	\$45.27	\$472.15	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$557.43	\$5.58
8 foot bracket - metal pole - side mount	\$414.39	\$15.46	\$45.58	\$475.43	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$560.71	\$5.62
10 foot bracket - metal pole - side mount	\$441.22	\$16.46	\$48.53	\$506.22	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$591.49	\$5.92
12 foot bracket - metal pole - side mount	\$511.62	\$19.08	\$56.28	\$586.98	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$672.26	\$6.73
15 foot bracket - metal pole - side mount	\$524.34	\$19.56	\$57.68	\$601.57	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$686.85	\$6.88
18 inch bracket - metal pole - double Flood Mount - top mount	\$120.21	\$4.48	\$13.22	\$137.92	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$223.20	\$2.24
14 inch bracket - metal pole - single mount - top tenon	\$65.51	\$2.44	\$7.21	\$75.16	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$160.44	\$1.61
14 inch bracket - metal pole - double mount - top tenon	\$99.13	\$3.70	\$10.90	\$113.73	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$199.01	\$1.99
14 inch bracket - metal pole - triple mount - top tenon	\$139.57	\$5.21	\$15.35	\$160.13	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$245.41	\$2.46
14 inch bracket - metal pole - quad mount - top tenon	\$125.20	\$4.67	\$13.77	\$143.65	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$228.92	\$2.29
6 foot - metal pole - single - top tenon	\$136.26	\$5.08	\$14.99	\$156.33	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$241.61	\$2.42
6 foot - metal pole - double - top tenon	\$261.72	\$9.76	\$28.79	\$300.27	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$385.55	\$3.86
4 foot - Boston Harbor - top tenon	\$610.18	\$22.76	\$67.12	\$700.05	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$785.33	\$7.87
6 foot - Boston Harbor - top tenon	\$674.75	\$25.17	\$74.22	\$774.14	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$859.42	\$8.61
12 foot - Boston Harbor Style C pole double mount - top tenon	\$1,274.92	\$47.55	\$140.24	\$1,462.71	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$1,547.99	\$15.51
4 foot - Davit arm - top tenon	\$652.69	\$24.35	\$71.80	\$748.84	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$834.11	\$8.36
18 inch - Cobrahead fixture for wood pole	\$29.32	\$1.09	\$3.23	\$33.64	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$118.92	\$1.19
18 inch - Flood light for wood pole	\$41.91	\$1.56	\$4.61	\$48.08	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$133.36	\$1.34
Wiring													<u>12.02%</u>
Secondary Pedestal (cost per unit)	\$104.22	\$3.89	\$11.46	\$119.57	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$204.85	\$2.05
Handhole (cost per unit)	\$73.49	\$2.74	\$8.08	\$84.31	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$169.59	\$1.70
6AL DUPLEX and Trench (cost per foot)	\$4.75	\$0.18	\$0.52	\$5.45	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$90.73	\$0.91
6AL DUPLEX and Trench with conduit (cost per foot)	\$8.08	\$0.30	\$0.89	\$9.27	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$94.55	\$0.95
6AL DUPLEX with existing conduit (cost per foot)	\$2.11	\$0.08	\$0.23	\$2.42	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$87.70	\$0.88
6AL DUPLEX and Bore with conduit (cost per foot)	\$20.84	\$0.78	\$2.29	\$23.91	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$109.19	\$1.09
6AL DUPLEX OH wire (cost per foot)	\$1.45	\$0.05	\$0.16	\$1.66	\$69.83	\$20.95	\$27.93	\$11.80	\$7.68	\$16.92	\$85.28	\$86.94	\$0.87

Duke Energy Kentucky, Inc. 1262 Cox Road Erlanger, KY 41018 KY.P.S.C. Electric No. 2

SecondThird Revised Sheet No. 64

Cancels and Supersedes

FirstSecond Revised Sheet No. 64

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#### **RATE LED**

#### LED OUTDOOR LIGHTING ELECTRIC SERVICE

#### **APPLICABILITY**

To any customer seeking unmetered roadway or other unmetered outdoor illumination from Company owned LED technology. Customer must be adjacent to an electric power line of Company that is adequate and suitable fo supplying the necessary electric service. Specific program technologies, services, pricing, and requirements are addressed below. Service hereunder is provided for the sole and exclusive benefit of the customer, and nothing herein or in the contract executed hereunder is intended to benefit any third party or to impose any obligation on the Company to any such third party.

Service under this tariff schedule shall require a written agreement between the customer and the Company specifying the calculated lighting kilowatt-hours. The LED System shall comply with the connection requirements in the Company's Electric Service Regulations, Section III and Section IV, Customer's and Company's Installations respectively.

#### **CHARACTER OF SERVICE**

The Company will provide automatically controlled unmetered lighting service, alternating current, 60 cycle, single phase, at the Company's standard voltage available. This service may include "smart" lighting technologies.

The Company will provide unmetered electric service based on the calculated annual energy usage for each luminaire's lamp wattage plus ballast usage (impact wattage). The LED System kilowatt-hour usage shall be determined by the number of lamps and other LED System particulars as defined in the written agreement between the customer and Company. The monthly kilowatt-hour amount will be billed at the rate contained in the NET MONTHLY BILL section below.

#### LIGHTING HOURS

All unmetered lighting systems, under this rate schedule, will be operated automatically. Annual estimated operating hours for dusk-to-dawn levels will be based on regional National Weather Service hours for sunrise and sunset times. Dusk-to-dawn lighting typically turns on and off approximately one-half (1/2) hour after sunset and one-half (1/2) hour before sunrise which is approximately 4160 hours annually.

#### **NET MONTHLY BILL**

Computed in accordance with the following charges:

 Base Rate All kWh

\$0.040785 per kWh

(.)

(T)

Issued by authority of an Order of the Kentucky Public Service Commission dated April 27, 2020 in Case No. 2019-00271

Issued: May 1, 2020 Effective: May 1, 2020

(N)

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KY.P.S.C. Electric No. 2

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Cancels and Supersedes

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Duke Energy Kentucky, Inc. 1262 Cox Road Erlanger, KY 41018

#### **NET MONTHLY BILL (Contd.)**

Energy charge based on the following calculation:

- a. Lamp watts plus ballast wattage equals impact watts
- b. Watts times estimated annual burn hours as set in agreement equals annual watt hours
- c. Annual watt hours divided by 1000 hours equals annual kilowatt hours (kWh)
- d. Annual kWh divided by twelve (12) months equals monthly kWh
- e. Monthly kWh times current rate per kWh = monthly dollar amount per luminaire

The rate shown above includes a charge of \$0.023837 per kilowatt-hour reflecting the base cost of fuel.

2. Applicable Riders

The following riders are applicable pursuant to the specific terms contained within each rider:

Sheet No. 76, Rider ESM, Environmental Surcharge Mechanism Rider

Sheet No. 80, Rider FAC, Fuel Adjustment Clause

Sheet No. 82, Rider PSM, Profit Sharing Mechanism

3. Monthly Maintenance, Fixture, Pole, Pole Foundation, Brackets, and Wire Equipment Charges:

I. Fixtures					Per Unit Per M	lonth
Billing Type	Description	Initial Lumens	Lamp Wattage	Monthly kWh	Fixture	Maintenance
LED NB 50	50W Neighborhood	5,000	50	17	\$4.27	\$4.51
LED NBL 50	50W Neighborhood with Lens	5,000	50	17	\$4.45	\$4.51
LED RDW 50	50W Standard LED	4,521	50	17	\$5.25	\$4.51
LED RDW 70	70W Standard LED	6,261	70	24	\$5.24	\$4.51
LED RDW 110	110W Standard LED	9,336	110	38	\$5.94	\$4.51
LED RDW 150	150W Standard LED	12,642	150	52	\$7.87	\$4.51
LED RDW 220	220W Standard LED	18,642	220	76	\$8.92	\$5.50
LED RDW 280	280W Standard LED	24,191	280	97	\$10.98	\$5.50
LED ACS 50	50W Acorn LED	5,147	50	17	\$13.80	\$4.51
LED DA 50	50W Deluxe Acorn LED	5,147	50	17	\$15.31	\$4.51
LED ODA 70	70W LED Open Deluxe Acorn	6,500	70	24	\$14.93	\$4.51
LED TR 50	50W Traditional LED	3,303	50	17	\$10.00	\$4.51
LED OT 50	50W Open Traditional LED	3,230	50	17	\$10.00	\$4.51
LED MB 50	50W Mini Bell LED	4,500	50	17	\$13.01	\$4.51
LED EN 50	50W Enterprise LED	3,880	50	17	\$13.44	\$4.51
LED SAN 70	70W Sanibel LED	5,508	70	24	\$16.57	\$4.51

Issued by authority of an Order of the Kentucky Public Service Commission dated April 27, 2020 in Case No. 2019-00271

Issued: May 1, 2020 Effective: May 1, 2020

Duke Energy Kentucky, Inc. 1262 Cox Road Erlanger, KY 41018 KY.P.S.C. Electric No. 2

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I. Fixtures (Contd.)		Per Unit Per Month				
Billing Type	Description	Initial Lumens	Lamp Wattage	Monthly kWh	Fixture	Maintenance
LED SAN 150	150W Sanibel LED	12,500	150	52	\$16.57	\$4.51
LED LD 150	150W LED Teardrop	12,500	150	52	\$20.05	\$4.51
LED LDP 50	50W LED Teardrop Pedestrian	4,500	50	17	\$16.27	\$4.51
LED SBX 220	220W LED Shoebox	18,500	220	76	\$13.88	\$5.50
LED SBX 420	420W LED Shoebox	39,078	420	146	\$20.72	\$5.50
TBDLSBX530	530W LED Shoebox	57,000	530	184	\$ <del>26.55</del> 26.34	\$5.50
TBDLCLE150	150W Clermont LED	12,500	150	52	\$ <del>25.19</del> 25.00	\$4.51
TBDLFL130	130W Flood LED	14,715	130	45	\$ <del>8.65</del> <u>8.58</u>	\$4.51
TBDLFL260	260W Flood LED	32,779	260	90	\$ <del>13.61</del> 13.50	\$4 <del>.51</del> <u>5.50</u>
TBDLMON050	50W Monticello LED	4,157	50	17	\$ <del>16.82</del> 16.69	\$4.51
TBDLMT050	50W Mitchell Finial	5,678	50	17	\$ <del>15.95</del> 15.83	\$4.51
TBDLMTR050	50W Mitchell Ribs, Bands, and					
	Medallions LED	5,678	50	17	\$ <del>17.57</del> 17.44	\$4.51
TBDLMTT050	50W Mitchell Top Hat LED	5,678	50	17	\$ <del>15.95</del> 15.83	\$4.51
TBDLMTL050	50W Mitchell Top Hat with Ribs,					
	Bands, and Medallions LED	5,678	50	17	\$ <del>17.57</del> 17.44	\$ <del>5.50</del> 4.51
TBDLOMO050	50W Open Monticello LED	4,157	50	17	\$ <del>16.75</del> 16.62	\$ <del>5.50</del> 4.51

II. Poles		
Billing Type	Description	Charge per Month per Unit
A12A	Style A 12 Ft Long Anchor Base Top Tenon Aluminum	\$6.01
A15D	Style A 15 Ft Long Direct Buried Top Tenon Aluminum	\$5.14
A15A	Style A 15 Ft Long Anchor Base Top Tenon Aluminum	\$6.18
A18D	Style A 18 Ft Long Direct Buried Top Tenon Aluminum	\$5.35
A17A	Style A 17 Ft Long Anchor Base Top Tenon Aluminum	\$6.47
A25D	Style A 25 Ft Long Direct Buried Top Tenon Aluminum	\$9.92
A22A	Style A 22 Ft Long Anchor Base Top Tenon Aluminum	\$7.68
A30D	Style A 30 Ft Long Direct Buried Top Tenon Aluminum	\$11.06
A27A	Style A 27 Ft Long Anchor Base Top Tenon Aluminum	\$9.07

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II. Poles (Contd.)		
Billing Type	Description	Charge per Month
A35D	Style A 35 Ft Long Direct Buried Top Tenon Aluminum	per Unit \$12.31
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A32A	Style A 32 Ft Long Anchor Base Top Tenon Aluminum	\$10.48
A41D	Style A 41 Ft Long Direct Buried Top Tenon Aluminum	\$13.30
A12B	Style B 12 Ft Long Anchor Base Post Top Aluminum	\$7.31
A12C	Style C 12 Ft Long Anchor Base Post Top Aluminum	\$9.90
S12V	Style C 12 Ft Long Anchor Base Davit Steel	\$9.90
S14C	Style C 14 Ft Long Anchor Base Top Tenon Steel	\$10.62
S21V	Style C 21 Ft Long Anchor Base Davit Steel	\$26.04
S23C	Style C 23 Ft Long Anchor Base Boston Harbor Steel	\$26.33
A12R	Style D 12 Ft Long Anchor Base Breakaway Aluminum	\$9.81
A12E	Style E 12 Ft Long Anchor Base Post Top Aluminum	\$9.90
A12I	Style F 12 Ft Long Anchor Base Post Top Aluminum	\$10.60
A39T	Legacy Style 39 Ft Direct Buried Single or Twin Side Mount Aluminum Satin Finish	\$16.76
A27S	Legacy Style 27 Ft Long Anchor Base Side Mount Aluminum Pole Satin Finish Breakaway	\$12.92
A33S	Legacy Style 33 Ft Long Anchor Base Side Mount Aluminum Pole Satin Finish Breakaway	\$12.56
A37S	Legacy Style 37 Ft Long Anchor Base Side Mount Aluminum Pole Satin Finish	\$15.53
W30	30' Class 7 Wood Pole	\$6.14
W35	35' Class 5 Wood Pole	\$6.68
W40	40' Class 4 Wood Pole	\$10.05
W45	45' Class 4 Wood Pole	\$10.42
TBDA15J	15' Style A - Fluted - for Shroud - Aluminum Direct Buried Pole	\$ <del>5.08</del> <u>5.03</u>
TBDA20J	·	
TBDA15K  15' Style A - Smooth - for Shroud - Aluminum Direct Buried Pole		\$ <del>3.35</del> <u>3.32</u>
TBDA20K	20' Style A - Smooth - for Shroud - Aluminum Direct Buried Pole	\$ <del>5.22</del> <u>5.17</u>
TBDA Pole Shroud	Shroud - Standard Style for anchor base poles	\$ <del>2.45</del> 2.42
TBDB Pole Shroud	Shroud - Style B Pole for smooth and fluted poles	\$ <del>2.30</del> 2.28
TBDC Pole Shroud	Shroud - Style C Pole for smooth and fluted poles	\$ <del>2.21</del> 2.19
TBDD Pole Shroud	Shroud - Style D Pole for smooth and fluted poles	\$ <del>2.38</del> 2.35

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III. Pole Foundations		
Billing Type	Description	Charge per Month per Unit
TBDFND-Flush-A	Flush - Pre-fabricated - Style A Pole	\$ <del>10.33</del> <u>10.23</u>
TBDFND-Flush-B	Flush - Pre-fabricated - Style B Pole	\$ <del>9.31</del> 9.22
TBDFND-Flush-C	Flush - Pre-fabricated - Style C Pole	\$ <del>10.94</del> <u>10.84</u>
TBDFND-Flush-E	Flush - Pre-fabricated - Style E Pole	\$ <del>10.33</del> <u>10.23</u>
TBDFND-Flush-F	Flush - Pre-fabricated - Style F Pole	\$ <del>9.31</del> <u>9.22</u>
TBDFND-Flush-D	Flush - Pre-fabricated - Style D Pole	\$ <del>9.07</del> <u>8.98</u>
TBDFND-Reveal-A	Reveal - Pre-fabricated - Style A Pole	\$ <del>10.97</del> <u>10.87</u>
TBDFND-Reveal-B	Reveal - Pre-fabricated - Style B Pole	\$ <del>11.73</del> <u>11.61</u>
TBDFND-Reveal-C	Reveal - Pre-fabricated - Style C Pole	\$ <del>11.72</del> <u>11.61</u>
TBDFND-Reveal-D	Reveal - Pre-fabricated - Style D Pole	\$ <del>11.72</del> <u>11.61</u>
TBDFND-Reveal-E	Reveal - Pre-fabricated - Style E Pole	\$ <del>11.72</del> <u>11.61</u>
TBDFND-Reveal-F	Reveal - Pre-fabricated - Style F Pole	\$ <del>10.25</del> <u>10.14</u>
TBDFND-Screw-in	Screw-in Foundation	\$ <del>5.76</del> <u>5.70</u>

IV. Brackets		
Billing Type	Description	Charge per Month per Unit
TBDBKT-Wood-14in	14 inch bracket - wood pole - side mount	\$ <del>1.37</del> 1.36
TBDBKT-Wood-4ft	4 foot bracket - wood pole - side mount	\$ <del>1.48</del> 1.47
TBDBKT-Wood-6ft	6 foot bracket - wood pole - side mount	\$ <del>1.36</del> 1.34
TBDBKT-Wood-8ft	8 foot bracket - wood pole - side mount	\$ <del>2.19</del> 2.17
TBDBKT-Wood-10ft	10 foot bracket - wood pole - side mount	\$ <del>4.53</del> 4.49
TBDBKT-Wood-12ft	12 foot bracket - wood pole - side mount	\$ <del>3.59</del> <u>3.56</u>
TBDBKT-Wood-15ft	15 foot bracket - wood pole - side mount	\$ <del>4.37</del> 4.33
TBDBKT-Side-4ft	4 foot bracket - metal pole - side mount	\$ <del>5.28</del> <u>5.22</u>
TBDBKT-Side-6ft	6 foot bracket - metal pole - side mount	\$ <del>5.6</del> 4 <u>5.58</u>
TBDBKT-Side-8ft	8 foot bracket - metal pole - side mount	\$ <del>5.67</del> <u>5.62</u>
TBDBKT-Side-10ft	10 foot bracket - metal pole - side mount	\$ <del>5.98</del> <u>5.92</u>
TBDBKT-Side-12ft	12 foot bracket - metal pole - side mount	\$ <del>6.80</del> <u>6.73</u>

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IV. Brackets (Contd.)		
Billing Type	Description	Charge per Month per Unit
TBDBKT-Side-15ft	15 foot bracket - metal pole - side mount	\$ <del>6.95</del> <u>6.88</u>
TBDBKT-Tenon-18in-DBL	18 inch bracket - metal pole - double Flood Mount - top mount	\$ <del>2.26</del> 2.24
TBDBKT-Tenon-14in	14 inch bracket - metal pole - single mount - top tenon	\$ <del>1.62</del> 1.61
TBDBKT-Tenon-14in-DBL	14 inch bracket - metal pole - double mount - top tenon	\$ <del>2.01</del> 1.99
TBDBKT-Tenon-14in-TPL	14 inch bracket - metal pole - triple mount - top tenon	\$ <del>2.48</del> 2.46
TBDBKT-Tenon-14in-Quad	14 inch bracket - metal pole - quad mount - top tenon	\$ <del>2.32</del> 2.29
TBDBKT-Tenon-6ft	6 foot - metal pole - single - top tenon	\$ <del>2.44</del> 2.42
TBDBKT-Tenon-6ft DBL	6 foot - metal pole - double - top tenon	\$ <del>3.90</del> <u>3.86</u>
TBDBKT-Tenon-4ft BH	4 foot - Boston Harbor - top tenon	\$ <del>7.9</del> 4 <u>7.87</u>
TBDBKT-Tenon-6ft BH	6 foot - Boston Harbor - top tenon	\$ <del>8.69</del> 8.61
TBDBKT-Tenon-12ft BH	12 foot - Boston Harbor Style C pole double mount - top tenon	\$ <del>15.66</del> 15.51
TBDBKT-Tenon-4ft Davit	4 foot - Davit arm - top tenon	\$ <del>8.44</del> <u>8.36</u>
TBDBKT-Wood-18in-CH	18 inch - Cobrahead fixture for wood pole	\$ <del>1.20</del> 1.19
TBDBKT-Wood-18in-FL	18 inch - Flood light for wood pole	\$ <del>1.35</del> 1.34

V. Wiring Equipment		
Billing Type	Description	Charge per Month per Unit
TBDMISC-Sec-PED	Secondary Pedestal (cost per unit)	\$ <del>2.07</del> 2.05
TBDMISC-Handhole	Handhole (cost per unit)	\$ <del>1.72</del> 1.70
TBDCABLE-6AL-Trench	6AL DUPLEX and Trench (cost per foot)	\$ <del>0.92</del> <u>0.91</u>
TBDCABLE-6AL-Trench-Conduit	6AL DUPLEX and Trench with conduit (cost per foot)	\$ <del>0.96</del> <u>0.95</u>
TBDCABLE-6AL-Existing Conduit	6AL DUPLEX with existing conduit (cost per foot)	\$ <del>0.89</del> <u>0.88</u>
TBDCABLE-6AL-Bore-Conduit	6AL DUPLEX and Bore with conduit (cost per foot)	\$ <del>1.10</del> 1.09
TBDWIRE-6AL	6AL DUPLEX OH wire (cost per foot)	\$ <del>0.88</del> <u>0.87</u>

#### LATE PAYMENT CHARGE

Payment of the Net Monthly Bill must be received in the Company's office within twenty-one (21) days from the date the bill is mailed by the Company. When not so paid, the Gross Monthly Bill, which is the Net Monthly Bill plus 5%, is due and payable.

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#### **OWNERSHIP OF SERVICE LINES**

Company will provide, install, own, operate and maintain the necessary facilities for furnishing electric service to the System defined in the agreement. If the customer requires the installation of a System at a location which requires the extension, relocation, or rearrangement of the Company's distribution system, the customer shall, in addition to the monthly charge, pay the Company on a time and material basis, plus overhead charges, the cost of such extension, relocation, or rearrangement, unless in the judgment of the Company no charge should be made. Customer may also pay monthly for such extension, relocation, or rearrangement as described below under Terms of Service. An estimate of the cost will be submitted for approval before work is carried out.

The Company shall erect the service lines necessary to supply electric energy to the System within the limits of the streets and highways or on property as mutually agreed upon by the Company and the customer. The customer shall assist the Company, if necessary, in obtaining adequate written easements covering permission to install and maintain any service lines required to serve the System.

The Company shall not be required to pay for obtaining permission to trim or re-trim trees where such trees interfere with supplying electric energy to the System. The Customer shall assist the Company, if necessary, in obtaining permission to trim trees where the Company is unable to obtain such permission through its own best efforts.

#### **TERMS OF SERVICE**

- Service under this rate schedule shall be for a minimum initial term of ten (10) years from the
  commencement of service and shall continue thereafter until terminated by either party by sixty
  (60) days written notice or to termination. Upon early termination of service under this schedule,
  the customer shall pay an amount equal to the remaining monthly lease amount for the term of
  contract and removal cost of the facilities.
- 2. Where the Company provides a LED fixture, pole type or equipment other than those listed above, the monthly charges, as applicable shall be computed as follows:
  - I. Fixture
    - a. Fixture Charge: Based on the Company's average installed cost including overhead/loadings, applicable property tax, applicable income tax, depreciation and rate of return.
    - b. Maintenance Charge: Based on the Company's average cost of performing maintenance on lighting equipment.
  - II. Pole
    - a. Pole Charge: Based on the Company's average installed cost including overhead/loadings, applicable property tax, applicable income tax, depreciation and rate of return.

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Issued by: Amy B. Spiller, President /s/ Amy B. Spiller

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#### III. Other Equipment

- Equipment Charge: Based on the Company's average installed cost including overhead/loadings, applicable property tax, applicable income tax, depreciation and rate of return.
- The customer shall be responsible for the cost incurred to repair or replace any fixture or pole
  which has been willfully damaged. The Company shall not be required to make such repair or
  replacement or to make payment to the customer for damage.
- 4. KWh consumption for Company-owned fixtures shall be estimated in lieu of installing meters. Monthly kWh estimates will be made using the following formula: kWh = Unit Wattage x (4160 hours per year / 12 months) / 1,000.
- 5. No Pole Charge shall be applicable for a fixture installed on a company-owned pole which is utilized for other general electrical distribution purposes.
- 6. The Company will repair or replace malfunctioning lighting fixtures maintained by the Company.
- 7. For a fixture type restricted to existing installations and requiring major renovation or replacement, the fixture shall be replaced by an available similar non-restricted LED fixture of the customer's choosing and the customer shall commence being billed at its appropriate rate.
- 8. The customer will be responsible for trimming trees and other vegetation that obstruct the light output from fixture(s) or maintenance access to the facilities.
- 9. All new leased LED lighting shall be installed on poles owned by the Company.
- 10. Alterations to leased LED lighting facilities requested by the customer after date of installation (i.e. redirect, install shields, etc.), will be billed to the customer in accordance with the Company's policy.
- 11. Service for street or area lighting is normally provided from existing distribution facilities. Where suitable distribution facilities do not exist, it will be the customer's responsibility to pay for necessary additional facilities either at cost upfront or monthly as described below.
- 12. The Company will normally install service in accordance with the Electric Service Regulations for the facilities required to supply electric service to the customer. For Lighting installations requiring investments exceeding the Company's standards and where additional facilities are required as discussed above, lighting customer must pay the cost of the additional facility investment upfront or 1.0017% of the cost of the additional facility investment amount monthly.

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13. For available LEDs, the customer may opt to make an initial, one-time payment of 50% of the installed cost of fixtures rated greater than 200 Watts and poles other than standard wood poles, to reduce the Company's installed cost, therefore reducing their monthly rental rates for such fixtures and poles. If a customer chooses this option, the monthly fixture and/or pole charge shall be computed as the reduced installed cost times the corresponding monthly percentage in 2.l.(a) and/or 2.ll above.

#### **SERVICE REGULATIONS**

The supplying of, and billing for, service and all conditions applying thereto, are subject to the jurisdiction of the Kentucky Public Service Commission, and to the Company's Service Regulations currently in effect, as filed with the Kentucky Public Service Commission, as provided by law.

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