

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6

4th Revised SHEET NO. 54.1

CANCELLING MO.P.S.C. SCHEDULE NO. 6

3rd Revised SHEET NO. 54.1

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 1 (M)
RESIDENTIAL SERVICE RATE (Cont'd.)

RATE BASED ON MONTHLY METER READINGS (Cont'd.)

Fuel and Purchased Power Adjustment (Rider FAC) Applicable to all metered kilowatt-hours (kWh) of energy.

Energy Efficiency Investment Charge (Rider EEIC) Applicable to all metered kilowatt-hours (kWh) of energy excluding kWh of energy supplied to customers that have satisfied the opt-out provisions or the low-income exemption provisions of Section 393.1075, RSMo.

*Renewable Energy Standard Rate Adjustment Mechanism (Rider RESRAM) Applicable to all metered kilowatt-hours (kWh) of energy.

Payments Bills are due and payable within twenty-one (21) days from date of bill and become delinquent thereafter.

Term of Use Initial period one (1) year, terminable thereafter on three (3) days' notice.

Tax Adjustment Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

* Indicates Addition.

DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019

ISSUED BY Michael Moehn President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 3rd Revised SHEET NO. 55.1

CANCELLING MO.P.S.C. SCHEDULE NO. 6 2nd Revised SHEET NO. 55.1

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 2 (M)
SMALL GENERAL SERVICE RATE (Cont'd.)

RATE BASED ON MONTHLY METER READINGS (Cont'd.)

Fuel and Purchased Power Adjustment (Rider FAC) Applicable to all metered kilowatt-hours (kWh) of energy.

Energy Efficiency Investment Charge (Rider EEIC) Applicable to all metered kilowatt-hours (kWh) of energy excluding kWh of energy supplied to customers that have satisfied the opt-out provisions of Section 393.1075, RSMo.

*Renewable Energy Standard Rate Adjustment Mechanism (Rider RESRAM) Applicable to all metered kilowatt-hours (kWh) of Energy.

Payments Bills are due and payable within twenty-one (21) days from date of bill and become delinquent thereafter.

Term of Use One (1) year, terminable thereafter on three (3) days' notice.

Tax Adjustment Any license, franchise, gross receipts, occupation, or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

* Indicates Addition.

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ISSUED BY Michael Moehn President St. Louis, Missouri
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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 3rd Revised SHEET NO. 56.1

CANCELLING MO.P.S.C. SCHEDULE NO. 6 2nd Revised SHEET NO. 56.1

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 3(M)
LARGE GENERAL SERVICE RATE (Cont'd.)

RATE BASED ON MONTHLY METER READINGS (Cont'd.)

Fuel and Purchased Power Adjustment (Rider FAC) Applicable to all metered kilowatt-hours (kWh) of energy.

Energy Efficiency Investment Charge (Rider EEIC) Applicable to all metered kilowatt-hours (kWh) of energy excluding kWh of energy supplied to customers that have satisfied the opt-out provisions of Section 393.1075, RSMo.

*Renewable Energy Standard Rate Adjustment Mechanism (Rider RESRAM) Applicable to all metered kilowatt-hours (kWh) of energy.

Payments Bills are due and payable within twenty-one (21) days from date of bill and become delinquent thereafter.

Term of Use One (1) year, terminable thereafter on three (3) days' notice.

Tax Adjustment Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

* Indicates Addition.

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ISSUED BY Michael Moehn President St. Louis, Missouri
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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6

3rd Revised

SHEET NO. 57.1

CANCELLING MO.P.S.C. SCHEDULE NO. 6

2nd Revised

SHEET NO. 57.1

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 4 (M)
SMALL PRIMARY SERVICE RATE (Cont'd.)

RATE BASED ON MONTHLY METER READINGS (Cont'd.)

Fuel and Purchased Power Adjustment (Rider FAC) Applicable to all metered kilowatt-hours (kWh) of energy.

Energy Efficiency Investment Charge (Rider EEIC) Applicable to all metered kilowatt-hours (kWh) of energy excluding kWh of energy supplied to customers that have satisfied the opt-out provisions of Section 393.1075, RSMo.

*Renewable Energy Standard Rate Adjustment Mechanism (Rider RESRAM) Applicable to all metered kilowatt-hours (kWh) of energy.

Payments Bills are due and payable within twenty-one (21) days from date of bill and become delinquent thereafter.

Term of Use One (1) year, terminable thereafter on three (3) days' notice.

Tax Adjustment Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

* Indicates Addition.

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ISSUED BY Michael Moehn
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President
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St. Louis, Missouri
ADDRESS

MO.P.S.C. SCHEDULE NO. 6 3rd Revised SHEET NO. 58.3

CANCELLING MO.P.S.C. SCHEDULE NO. 6 2nd Revised SHEET NO. 58.3

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 5 (M)

STREET AND OUTDOOR AREA LIGHTING - COMPANY-OWNED (Cont'd.)

Fuel and Purchased Power Adjustment (Rider FAC) The kilowatt-hours for lighting service provided under the terms of this Service Classification shall be subject to the provisions of Company's Fuel and Purchased Power Adjustment Clause (Rider FAC).

*Renewable Energy Standard Rate Adjustment Mechanism (Rider RESRAM) The kilowatt-hours for lighting service provided under the terms of this Service Classification shall be subject to the provisions of Company's Renewable Energy Standard Rate Adjustment Mechanism (Rider RESRAM).

** The kilowatt-hour consumption of each lamp, whose operating hours are determined by a photoelectric control, shall be determined from the manufacturer's rated wattage multiplied by the number of hours of operation for the month, in accordance with the following schedules:

	<u>Rating (Watts)</u>	<u>Billing Month</u>	<u>Burning Hours</u>
LED Fixtures:			
Bracket Mount - 100W Equivalent	48	January	408
Bracket Mount - 250W Equivalent	88	February	347
Bracket Mount - 400W Equivalent	195	March	346
Directional Flood - Small	89	April	301
Directional Flood - Medium	150	May	279
Directional Flood - Large	297	June	255
Post-Top - All Styles	51	July	272
		August	298
		September	322
		October	368
		November	387
		December	417
	<u>Rating (Lumens)</u>		
	<u>Rating (Watts)</u>		
High Pressure Sodium Fixtures:			
	5,800		70
	9,500		120
	16,000		202
	25,500		307
	50,000		482
	140,000		1000
Mercury Vapor Fixtures:			
	3,300		127
	6,800		207
	11,000		294
	20,000		455
	42,000		700
	54,000		1080
Metal Halide Fixtures:			
	34,000		450
	100,000		1100

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 4th Revised SHEET NO. 59
 CANCELLING MO.P.S.C. SCHEDULE NO. 6 3rd Revised SHEET NO. 59

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 6 (M)
STREET AND OUTDOOR AREA LIGHTING - CUSTOMER-OWNED

MONTHLY RATE FOR METERED SERVICE

Customer Charge Per Meter \$6.97 per month
 Energy Charge 4.72¢ per kWh

RATE PER UNIT PER MONTH FOR UNMETERED SERVICE

	<u>Energy & Maintenance (1)</u>	<u>Energy Only (2)</u>
<u>H.P. Sodium</u>		
9,500 Lumens, Standard	\$3.80	\$ 1.84
25,500 Lumens, Standard	\$6.61	\$ 4.70
50,000 Lumens, Standard	\$9.54	\$ 7.39
<u>Metal Halide</u>		
5,500 Lumens, Standard	\$5.49	N/A
12,900 Lumens, Standard	\$6.57	N/A
<u>Mercury Vapor</u>		
	<u>(3)</u>	
3,300 Lumens, Standard	\$3.80	\$ 1.95
6,800 Lumens, Standard	\$4.94	\$ 3.17
11,000 Lumens, Standard	\$ 6.69	\$ 4.51
20,000 Lumens, Standard	\$ 8.87	\$ 6.96
54,000 Lumens, Standard	\$18.93	\$16.57
<u>Light Emitting Diodes (LED)</u>		
Energy Charge - per rated wattage per month		1.59¢

- (1) Company will furnish electric energy, furnish and replace lamps, and adjust and replace control mechanisms, as required. In conjunction with the Company's conversion of its Company-Owned lights to LED, Company anticipates eliminating 6(M) Energy & Maintenance service in the future but not prior to 6/1/2022. Customers remaining on Energy & Maintenance at that time will be transitioned to Energy Only service.
 - (2) Limited to lamps served under contracts initiated prior to September 27, 1988.
 - (3) Maintenance of lamps and fixtures limited to customers served under contracts prior to November 15, 1991.
- N/A Not Available.

Term of Contract One (1) year, terminable thereafter on three (3) days' notice.

Discount For Franchised Municipal Customers A 10% discount will be applied to bills rendered for lighting facilities served under the above rates and currently contracted for by municipalities with whom the Company has an ordinance granted electric franchise as of September 27, 1988. The above discount shall only apply for the duration of said franchise. Thereafter, the above discount shall apply only when the following two conditions are met: 1) any initial or subsequent ordinance granted electric franchise must be for a minimum term of twenty (20) years and 2) Company must have a contract for all lighting facilities for municipal lighting service provided by Company in effect.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 3rd Revised SHEET NO. 59.1
 CANCELLING MO.P.S.C. SCHEDULE NO. 6 2nd Revised SHEET NO. 59.1

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 6 (M)
STREET AND OUTDOOR AREA LIGHTING - CUSTOMER-OWNED (Cont'd.)

Fuel and Purchased Power Adjustment (Rider FAC) The kilowatt-hours for lighting service provided under the terms of this Service Classification shall be subject to the provisions of Company's Fuel and Purchased Power Adjustment Clause (Rider FAC).

* Renewable Energy Standard Rate Adjustment Mechanism (Rider RESRAM) The kilowatt-hours for lighting service provided under the terms of this Service Classification shall be subject to the provisions of Company's Renewable Energy Standard Rate Adjustment Mechanism (Rider RESRAM).

** The kilowatt-hour consumption of each lamp, whose operating hours are determined by a photoelectric control, shall be determined from the manufacturer's rated wattage multiplied by the number of hours of operation for the month, in accordance with the following schedules:

<u>Lamp Size</u> <u>(Lumens)</u>	<u>Rating</u> <u>(Watts)</u>	<u>Billing</u> <u>Month</u>	<u>Burning</u> <u>Hours</u>
<u>H. P. Sodium</u>			
9,500	120	January	408
25,500	307	February	347
50,000	482	March	346
		April	301
		May	279
		June	255
<u>Mercury Vapor</u>			
3,300	127	July	272
6,800	207	August	298
11,000	294	September	322
20,000	455	October	368
54,000	1080	November	387
		December	417
<u>Metal Halide</u>			
5,500	122		
12,900	206		

Light Emitting Diodes (LED)

Based on the rated wattage of individual customer lights.

Payments Bills are due and payable within twenty-one (21) days from date of bill and become delinquent thereafter.

Tax Adjustment Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

*Indicates Addition. **Indicates Reissue.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6

3rd Revised

SHEET NO. 61.1

CANCELLING MO.P.S.C. SCHEDULE NO. 6

2nd Revised

SHEET NO. 61.1

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 11(M)
LARGE PRIMARY SERVICE RATE (Cont'd.)

RATE BASED ON MONTHLY METER READINGS (Cont'd.)

Fuel and Purchased Power Adjustment (Rider FAC) Applicable to all metered kilowatt-hours (kWh) of energy.

Energy Efficiency Investment Charge (Rider EEIC) Applicable to all metered kilowatt-hours (kWh) of energy excluding kWh of energy supplied to customers that have satisfied the opt-out provisions of Section 393.1075, RSMo.

* Renewable Energy Standard Rate Adjustment Mechanism (Rider RESRAM) Applicable to all metered kilowatt-hours (kWh) of energy.

Payments Bills are due and payable within twenty-one (21) days from date of bill and become delinquent thereafter.

Term of Use One (1) year, terminable thereafter on three (3) days' notice.

Tax Adjustment Any license, franchise, gross receipts, occupation or similar charge or tax levied by any taxing authority on the amounts billed hereunder will be so designated and added as a separate item to bills rendered to customers under the jurisdiction of the taxing authority.

* Indicates Addition.

DATE OF ISSUE May 21, 2018

DATE EFFECTIVE January 1, 2019

ISSUED BY Michael Moehn
NAME OF OFFICER

President
TITLE

St. Louis, Missouri
ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 4th Revised SHEET NO. 62
 CANCELLING MO.P.S.C. SCHEDULE NO. 6 3rd Revised SHEET NO. 62

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 12 (M)
LARGE TRANSMISSION SERVICE RATE

RATE BASED ON MONTHLY METER READINGS

Summer Rate (Applicable during four (4) monthly billing periods of June through September)

Customer Charge - per month	\$323.82
Low-Income Pilot Program Charge - per month	\$1,500.00
Demand Charge - per kW of Billing Demand	\$15.55
Energy Charge - per kWh	2.953¢
Reactive Charge - per kVar	38.000¢

Winter Rate (Applicable during eight (8) monthly billing periods of October through May)

Customer Charge - per month	\$323.82
Low-Income Pilot Program Charge - per month	\$1,500.00
Demand Charge - per kW of Billing Demand	\$5.94
Energy Charge - per kWh	2.600¢
Reactive Charge - per kVar	38.000¢

Optional Time-of-Day Adjustments

Additional Customer Charge - per month	\$ 21.08	
Energy Adjustment - per kWh	On-Peak Hours (1)	Off-Peak Hours (1)
Summer kWh (June-September Billing Periods)	+0.68¢	-0.38¢
Winter kWh (October-May Billing Periods)	+0.31¢	-0.17¢

(1) On-peak and off-peak hours applicable herein shall be as specified within this service classification.

Fuel and Purchased Power Adjustment (Rider FAC) Applicable to all metered kilowatt-hours (kWh) of energy plus energy line losses from use of a transmission system other than Company's, if any.

Energy Efficiency Investment Charge (Rider EEIC) Applicable to all metered kilowatt-hours (kWh) of energy excluding kWh of energy supplied to customers that have satisfied the opt-out provisions of Section 393.1075, RSMo.

* Renewable Energy Standard Rate Adjustment Mechanism (Rider RESRAM) Applicable to all metered kilowatt-hours (kWh) of energy.

Energy Line Loss Rate Compensation for customer's energy line losses from use of the transmission system(s) outside Company's control area shall be in the form of energy solely supplied by Company to the transmission owner(s) and compensated by payment at a monthly rate of \$0.0399 per kWh after appropriate Rider C adjustment of meter readings.

* Indicates Addition.

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ISSUED BY	<u>Michael Moehn</u>	<u>President</u>	<u>St. Louis, Missouri</u>
	NAME OF OFFICER	TITLE	ADDRESS

MO.P.S.C. SCHEDULE NO. 63rd RevisedSHEET NO. 70CANCELLING MO.P.S.C. SCHEDULE NO. 62nd RevisedSHEET NO. 70APPLYING TO MISSOURI SERVICE AREA**TABLE OF CONTENTS****RIDERS**

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* Indicates Addition.

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ISSUED BY	<u>Michael Moehn</u>	<u>President</u>	<u>St. Louis, Missouri</u>
	NAME OF OFFICER	TITLE	ADDRESS

UNION ELECTRIC COMPANY ELECTRIC SERVICEMO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93

CANCELLING MO.P.S.C. SCHEDULE NO. _____ SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREARIDER RESRAMRENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISMAPPLICABILITY

This rider is applicable to all kilowatt-hours (kWh) of energy supplied to all customers served under all of the Company's Service Classifications.

Charges or credits passed through this rider reflect Missouri Renewable Energy Standard (section 393.1030 et. seq., RSMo.) ("RES") Compliance Costs, which consist of prudently incurred costs, both capital and expense, directly related to RES compliance which are not reflected in a regulatory asset arising under Section 393.1400.2, RSMo., and also reflect the pass-through of benefits received as a result of RES compliance to the extent those benefits are not passed through to customers in the Fuel Adjustment Rate under Rider FAC ("RESRAM Benefits").

RESRAM RATE FILINGS

The RESRAM Rate as of the effective date of this rider is \$0.00, as set forth on the initial RESRAM Rate Schedule, Original Sheet No. 93.6.

Except as otherwise provided for herein, a revised RESRAM Rate Schedule shall be filed every 12 months, but in no case shall the RESRAM Rate be revised more than once in each calendar year excluding revisions within a calendar year to reset the RESRAM Rate upon the effective date of new base rates in a general rate proceeding, or updates to the RESRAM rate as a result of an offset being ordered.

The revised RESRAM Rate effective on the date of new base rates in a general rate proceeding shall reset the RESRAM Rate so that it excludes factor RRR, as defined below, except for any portion of RES Compliance Costs or RESRAM Benefits reflected in factor RRR that are not also included in the revenue requirement used to set base rates in that proceeding.

DATE OF ISSUE May 21, 2018 **DATE EFFECTIVE** January 1, 2019**ISSUED BY** Michael M. Moehn **TITLE** President **ADDRESS** St. Louis, Missouri
NAME OF OFFICER **TITLE** **ADDRESS**

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.1

CANCELLING MO.P.S.C. SCHEDULE NO. _____ SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

The following items 1 to 3 apply to revised RESRAM rate schedules to adjust the RESRAM Rate other than when the RESRAM Rate is reset upon the effective date of new rates in a general rate proceeding or as a result of an offset adjustment being ordered:

1. **Accumulation Period (AP):** the historical calendar months during which RES Compliance Costs and RESRAM Benefits are incurred or received and for which over- or under-recoveries of those costs/benefits (factor ROUR, defined below) are calculated and accumulated through the ROUR. The initial AP under this rider shall begin on the first day of the first month that begins on or after the date this rider becomes effective and shall end on June 30, 2019. The duration of future APs, which shall always start on the first day of a calendar month and end on the last day of a calendar month, will be specified when each subsequent RESRAM Rate Schedule is filed, but all subsequent APs after the initial AP shall begin on the day following the end of the immediately preceding AP.

2. **Recovery Period (RP):** the billing months during which the over-/under-recoveries (factor ROUR) of RES Compliance Costs and RESRAM Benefits from the immediately preceding AP will be reflected in the RESRAM Rate, along with the actual RES Revenue Requirement (factor RRR, defined below), True-Up Amount (factor T, defined below), and the Ordered Adjustment (factor OA, defined below) for that RP. Each RP shall begin on the first day of the billing month that begins in the sixth calendar month after the prior AP has ended, and will be in effect for the same number of billing months that the concurrently established AP is in effect (e.g., the first RP will last for the same number of months as the second AP).

3. **RESRAM Rate Adjustment Filing Dates:** The Company will adjust its RESRAM Rate by filing a revised RESRAM Rate Schedule no later than 60 days after the end of each AP.

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NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.2

CANCELLING MO.P.S.C. SCHEDULE NO. SHEET NO.

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

RESRAM RATE DETERMINATION

Application of the RESRAM Rate, net of benefits received from RES compliance other than the RESRAM Benefits, shall not generate an annual amount of revenue that exceeds the one percent (1%) retail rate impact limitation provided for in the RES, as further outlined in 4 CSR 240-20.100(5). Any amounts otherwise recoverable under this rider but for the retail rate impact limitation will be deferred to a regulatory asset, at a carrying cost each month equal to the Company's monthly Short-Term Borrowing Rate to be recovered in a subsequent RP or reflected in the revenue requirement used to set base rates in the Company's next general rate proceeding if not already fully recovered.

For each RESRAM Rate adjustment filing, the RESRAM Rate is calculated as:

RESRAM Rate = TRR_RATE + ROA

Where:

TRR_RATE = TRR / S_RP

TRR = Total RESRAM Recoveries
TRR = ROUR + RRR + T + OA

S_RP = Estimated recovery period sales in kWh.

ROA = Required Offset Amount

ROA = DA / DPE

DA = Disallowance Amount - an amount determined to be disallowed by the Commission in the event the Commission disallows, during a subsequent general rate proceeding or prudence review under this rider, recovery of RES Compliance Costs previously in a RESRAM, or the pass-through RESRAM Benefits.

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UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.3

CANCELLING MO.P.S.C. SCHEDULE NO. _____ SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

DPE = Disallowance Period Energy - the energy projected to be sold in the six (6) months beginning with the first billing month following the promulgation of a RESRAM Rate that includes a DA.

ROUR = RES Over/Under Recovery

$$ROUR = ARC - RCR + I$$

ARC = Actual RES Costs
The actual RES Compliance Costs and RESRAM Benefits incurred or received during the recently completed AP.

RCR = RES Costs Recovered
The RES Compliance Costs and RESRAM Benefits reflected in rates during the AP as determined by multiplying S_{AP} by the sum of BF and any applicable RBF in effect during the AP.

I = Interest applicable to the following:
(i) the difference between RCR and ARC for all kWh of energy sold during an AP until those costs have been recovered;
(ii) Ordered Adjustments ("OA"), if any;
(iii) adjustments due to a required offset amount ("ROA");
(iv) all under- or over-recovery balances created through operation of this RESRAM, as determined in the true-up filings ("T") provided for herein.

Interest shall be calculated monthly at the Short-Term Borrowing Rate, applied to the month-end balance of items (i) through (iv) in the preceding sentence.

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UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.4

CANCELLING MO.P.S.C. SCHEDULE NO. _____ SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

- RRR = RESRAM Revenue Requirement: An amount equal to the revenue requirement associated with all RES Compliance Costs net of RESRAM Benefits that are not reflected in the revenue requirement that was used to set the Company's then-current base rates. The capital costs included in the RESRAM Revenue Requirement (this factor RRR) that is used in the calculation of the RESRAM Rate to be applied during an RP will be determined using investments in renewable energy resources used to comply with the RES that have been placed into service on the Company's books as of the end of the AP used to establish the RESRAM rate for that RP, and the non-capital costs and benefits included in factor RRR shall be the costs and benefits reflected on the Company's books during that AP Period, on an annualized basis if that AP was less than twelve months in length or if the asset to which the costs and benefits relate was only in service for a portion of the AP. Notwithstanding the previous sentence, if a wind generation asset used for RES compliance ceases to earn Production Tax Credits during an AP, an adjustment necessary to offset the annual impact of those Production Tax Credits as reflected in then-current base rates will be reflected in this factor RRR. In the event that the RP in which the RESRAM Rate being calculated will be in effect has a duration other than 12 months, the annual RES Compliance Costs net of RESRAM Benefits will be divided by 12 and multiplied by the number of months in the relevant RP to determine the RRR.
- T = True-Up Amount: An amount calculated at the end of each RP reflecting the difference between the revenues billed and the revenues authorized for collection through this rider during the RP, excluding amounts of authorized and actual revenues associated with factor RRR, resulting from the difference in forecasted RP total kWh usage, and actual total kWh usage from the RP.
- OA = Ordered Adjustment: The amount of any adjustment to the TRR ordered by the Commission as a result of corrections under this rider.
- BF = The initial RES Compliance Cost Base Factor is \$0.00086/kWh, and thereafter shall be reset in each general rate proceeding.

DATE OF ISSUE	<u>May 21, 2018</u>	DATE EFFECTIVE	<u>January 1, 2019</u>
ISSUED BY	<u>Michael M. Moehn</u>	<u>President</u>	<u>St. Louis, Missouri</u>
	NAME OF OFFICER	TITLE	ADDRESS

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.5

CANCELLING MO.P.S.C. SCHEDULE NO. _____ SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

S_{AP} = The Total Retail Sales in kWh from the AP.

RBF = RESRAM Base Factor: is based on the RRR included in the calculation of any RESRAM Rate divided by the S_{RP} used in the development of that rate. The RBF will be added to the BF prior to multiplication by S_{AP} in order to determine RCR in a manner that reflects all RES Compliance Costs that have been recovered net of RESRAM Benefits in a given period, whether through base rates or the RRR component of this rider.

"Short-Term Borrowing Rate" = A rate applied monthly that is equal to the weighted average interest rate paid on the Company's short-term debt.

The RESRAM Rates applicable to customer bills shall be rounded to the nearest 0.00001 cents, to be charged on a cents/kWh basis for each applicable kWh billed.

PRUDENCE REVIEWS:

A prudence review shall be conducted no less frequently than every twenty-four (24) months. RES Compliance Costs which are determined by the Commission to have been imprudently incurred or incurred in violation of the terms of this rider shall be credited to customers through factor DA with interest using factor I. RES Compliance Costs included in the revenue requirement used to set base rates in a general rate proceeding shall not be subject to further prudence review hereunder.

DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019
 ISSUED BY Michael M. Moehn President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.6

CANCELLING MO.P.S.C. SCHEDULE NO. _____ SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

RESRAM Rate Schedule

Accumulation Period Ending:		mm/dd/yy
1. Actual RES Costs Incurred in AP (ARC)		\$0
2. RES Expenses Recovered in AP (RCR) = ((BF+RBF) x S _{AP}) =		\$0
2.1 RES Compliance Cost Base Factor (BF+RBF)		\$0.00000
2.2 Accumulation Period Sales (S _{AP})	x	0 kWh
3. RES Over/Under Recovery (ROUR)	=	\$0
3.1 Interest	+	\$0
3.2 (Over)/Under Recovered Costs (ARC-RCR)	+	\$0
4. RES Revenue Requirement (RRR)	+	\$0
5. True-Up (T)	+	\$0
6. Ordered Adjustment (OA)	±	\$0
7. Total RESRAM Recoveries (TRR) = (ROUR+RRR+T+OA)	=	\$0
8. Estimated Recovery Period Sales (S _{RP})	÷	0 kWh
9. TRR _{RATE} = (TRR / S _{RP})	=	\$0.00000/kWh
10. RESRAM _{RATE} = TRR _{RATE} + ROA ¹	=	\$0.00000/kWh
11. Required Offset Amount (ROA)	+	\$0.00000/kWh
12. RESRAM_{RATE} (applicable for the first 6 billing months if ROA is greater than \$0.00000)	=	\$0.00000/kWh

*A negative RESRAM Rate represents a per kWh credit that would be applied to a customer's bill.

Recovery Period for Above RESRAM Rate

___ to ___

Next Accumulation Period

___ to ___

Current RBF = \$0.00000

¹ If ROA is equal \$0.00000, The RESRAM_{RATE} stated in this Line 10 shall apply for the entire Recovery Period. If ROA is greater than \$0.00000, the RESRAM_{RATE} shall be the value shown on line 12 for the first 6 billing months and, thereafter, the value shown on Line 10.