

Exhibit No. 32

Ameren – Exhibit 32
Michael Harding
Direct Testimony
File No. ER-2022-0337

Exhibit No.:
Issue(s): Rate Design
Witness: Michael W. Harding
Type of Exhibit: Direct Testimony
Sponsoring Party: Union Electric Company
File No.: ER-2022-0337
Date Testimony Prepared: August 1, 2022

MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. ER-2022-0337

DIRECT TESTIMONY

OF

MICHAEL W. HARDING

ON

BEHALF OF

UNION ELECTRIC COMPANY

D/B/A AMEREN MISSOURI

**St. Louis, Missouri
August, 2022**

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DIRECT TESTIMONY
OF
MICHAEL W. HARDING
FILE NO. ER-2022-0337

I. INTRODUCTION

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Q. Please state your name and business address.

A. Michael W. Harding, Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company"), One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. What is your position with Ameren Missouri?

A. I am employed by Ameren Missouri as the Manager of Rates & Analysis.

Q. Please describe your educational background and employment experience.

A. I received a Bachelor of Science in Business Finance from the University of Kansas in 2007. At the end of 2007, I accepted a Real-Time Trading Position with Union Electric Company, and I was subsequently promoted to Term Trader in May 2008. At the beginning of 2014, I was named General Executive of Renewable Energy within Ameren Services Company. I was promoted to my current position in April 2017, where I lead a team responsible for the Company's class cost of service, rate design, tariff administration, and various other regulatory projects. Prior to my employment at Ameren Missouri, I was employed by Westar Energy (now Evergy) in various roles within its trading and asset management department.

1 **II. PURPOSE OF TESTIMONY**

2 **Q. What is the purpose of your direct testimony?**

3 A. The purpose of my direct testimony is to:

4 (a) Discuss the allocation of revenues to all customer classes and the
5 design of the rates necessary to achieve the Company's jurisdictional
6 revenue requirement; and,

7 (b) Outline the revisions to various other tariff sheets filed as a part of
8 this case.

9 **Q. Are you sponsoring any schedules for presentation to the Commission**
10 **in this proceeding?**

11 A. Yes. I am sponsoring three schedules. These are listed and summarized
12 below:

13 • Schedule MWH-D1

14 Consists of the tariff sheets that reflect the revised rates being proposed by the
15 Company in this case. Such tariffs reflect an increase in the Company's net
16 jurisdictional test year revenues of approximately \$315,629,273 or 11.61%
17 above current tariffs.

18 • Schedule MWH-D2

19 Shows the distribution of the proposed net revenue requirement increase to
20 Company's various customer classes.

- 1 • Schedule MWH-D3

2 Details the allocation of revenues within each rate component to develop the
3 proposed rates.

4 **III. CLASS REVENUE ALLOCATION PROPOSAL**

5 **Q. What are the base revenue requirements for each customer class if**
6 **rates are set based solely on the equal rate of return class cost of service study**
7 **performed by Company witness Thomas Hickman?**

8 A. The table below summarizes the class base revenue requirements necessary
9 to give the Company an opportunity to achieve an equal rate of return from each of its
10 customer classes, based upon test year figures with the pro forma adjustments made by
11 Company witness Mitchell Lansford. A more detailed summary can be found in Schedule
12 TH-D2 attached to the direct testimony of Company witness Hickman.

13 **Table 1 – Cost-Based Revenue Requirements by Customer Class**

Customer Class	Base Revenue Requirement (\$Million)	Return on Rate Base
Residential Service	\$1,628.3	7.186%
Small General Service	\$346.0	7.186%
Large General & Small Primary Service	\$814.9	7.186%
Large Primary Service	\$198.0	7.186%
Company-Owned Lighting	\$41.3	7.186%
Customer-Owned Lighting	\$4.4	7.186%
Total	\$3,033.2	7.186%

1 **Q. Why are equal rates of return for all customer classes an appropriate**
2 **starting point when designing electric utility rates?**

3 A. There are several reasons why reflecting equal rates of return for all
4 customer classes is an appropriate starting point in the consideration of rate design. First
5 and foremost is the consideration of equity and fairness to all electric customers. Purely
6 from a cost perspective, and ignoring all other factors, apportioning a cost greater than the
7 equal return on rate base revenue requirement to a given customer class results in
8 subsidization between the classes.

9 A second important consideration is the goal of encouraging cost-effective
10 utilization of electricity by customers. To make appropriate decisions regarding the most
11 efficient and effective use of electricity, including decisions regarding the acquisition of
12 equipment that uses electricity, customers require correct and appropriate price signals
13 from the Company's electric rates. Equal rates of return for all customer classes promote
14 such price signals.

15 A third consideration in support of equal class rates of return is that of competition.
16 Cost-based electric rates permit the Company to compete effectively with alternative fuels,
17 co-generation, and other electric providers for new commercial and industrial customers.

18 **Q. If adhering strictly to the class cost of service, what would the required**
19 **change from current rates look like?**

20 A. In order to achieve a return on rate base of 7.186%, the Company must
21 overcome a significant shortfall in current revenues. This means it must increase rates
22 across nearly all of its classes. In Table 2 below, I compare current test year class base

1 revenues to the Class Cost of Service Study ("CCOSS") equal rate of return analysis shown
2 in the previous table and detailed in Company witness Hickman's testimony.¹ This shows
3 the percentage change that would be required in each class to achieve the Company's equal
4 rate of return.

5 **Table 2 – Cost-Based Rate Changes by Customer Class**

Customer Class	Equal Rate of Return Base Rev Requirement	Current Return Base Rev Requirement	Required Change to achieve equal return Rev Requirement
Residential Service	\$1,628.3	\$1,373.0	18.6%
Small General Service	\$346.0	\$305.2	13.4%
Large General & Small Primary Service	\$814.9	\$791.4	3.0%
Large Primary Service	\$198.0	\$205.8	-3.8%
Company-Owned Lighting	\$41.3	\$39.0	6.0%
Customer-Owned Lighting	\$4.4	\$2.9	52.4%
Total	\$3,033.2	\$2,717.5	11.6%

6 **Q. Is the Company proposing that only these cost-based class revenue**
7 **requirements be utilized in developing class rates in the case?**

8 A. No, rather the Company is proposing a modest departure from establishing
9 class revenue requirements solely on the basis of equal class rates of return as shown in its
10 CCOSS.

¹ The current test year class revenues detailing the net operating income and resulting class rates of return are shown in detail in Schedule TH-D1 attached to Company witness Hickman's testimony.

1 **Q. What is the Company's proposal for allocating the revenue increase**
2 **requested in this case?**

3 A. The Company proposes the use of a two-step process similar to that used to
4 set rates in its last electric rate case:²

5 Step 1: Increase/decrease the current base retail revenue on a revenue-neutral basis
6 to various classes of customers. The Company has made a small revenue neutral
7 adjustment in this step within the Lighting class, discussed later within this
8 testimony, and detailed within Schedule MWH-D2.

9 Step 2: Determine the amount of revenue increase/decrease and allocate to
10 customer classes as an equal percent of current base revenues after making the
11 adjustment in Step 1.

12 **Q. Please summarize the Company's proposed rate increase.**

13 A. The table below summarizes the proposed class revenue requirements
14 necessary, based on test year figures, to provide the Company an opportunity to achieve its
15 jurisdictional rate of return.

² File No. ER-2021-0240.

1

Table 3 – Proposed Rate Increase by Customer Class

Customer Class	Normalized Retail Revenues	Proposed Revenue Requirement	Required Revenue Adjustment	Percentage Increase
Residential Service	\$1,373,009,870	\$1,532,828,141	\$159,818,271	11.64%
Small General Service	\$305,241,746	\$340,780,784	\$35,539,038	11.64%
Large General Service	\$556,603,250	\$621,048,655	\$64,445,406	11.58%
Small Primary Service	\$234,883,908	\$261,957,847	\$27,073,939	11.53%
Large Primary Service	\$205,820,662	\$229,674,179	\$23,853,517	11.59%
Company-Owned Lighting	\$39,010,796	\$43,492,351	\$4,481,555	11.49%**
Customer-Owned Lighting	\$2,933,113	\$3,341,139	\$408,026	13.91%**
Metropolitan Sewer District	\$81,564	\$91,084	\$9,520	11.67%
Total*	\$2,717,584,907	\$3,033,214,179	\$315,629,272	11.61%

2 * Targeted increase from Company witness Lansford is \$315,629,273; however rate rounding resulted
3 in a difference of -\$1.

4 ** Combined Lighting Percentage Increase is 11.66%

5 **Q. Please explain the Company's proposal to allocate the revenue increase**
6 **in this two-step process rather than based solely on its CCROSS results.**

7 A. While the results of a CCROSS provide an important starting point in
8 developing class revenue targets and rate design, other factors – such as revenue stability,
9 rate stability, effectiveness in yielding total revenue requirements, public acceptance, and
10 value of service – must also be considered when determining class revenue requirements
11 and designing rates. These additional considerations drove the specific revenue neutral
12 shifts included in the Company's two-step process proposal.

13 The Company's lighting rate proposals, in particular, deserve additional attention.
14 The 5(M) Company-owned lighting class rate is already above its equal return on rate base
15 cost of service, and will require gradual decreases over time to better align its rates with

1 the cost to serve it. Conversely, the 6(M) Customer-owned lighting class rate is
2 substantially below its class cost of service and will require continuing increases over time
3 to help it contribute fairly to the cost to serve it. In other words, even though a larger rate
4 shift would be required between these lighting classes to bring them fully in line with an
5 equal return class cost of service, a shift of this size would significantly impact the smaller
6 6M class. To minimize rate shock to the 6M class, the Company recommends a smaller
7 shift to gradually bring these rates in line over time. This small shift in the lighting class is
8 consistent with what was proposed by the Company and approved by the Commission in
9 the previous rate review³ in an ongoing plan to gradually bring these classes in line with
10 their CCOSS results over time.

11 A detailed breakdown of the Lighting cost allocations between the Company-
12 owned and Customer-owned lighting classes is provided in Company witness Hickman's
13 direct testimony, and a summary of the revenue-neutral lighting shift and overall revenue
14 requirement adjustment is provided in Schedule MWH-D2, attached to my testimony. The
15 Company plans to continue to propose revenue neutral shifts required to move these classes
16 toward their cost of service in future cases until this discrepancy is narrowed to a reasonable
17 difference.

18 IV. RATE DESIGN

19 **Q. Please explain your use of the term "rate design."**

20 A. Generically speaking, my use of the term "rate design" refers both to the
21 process of establishing the specific charges (e.g. monthly customer charges, dollars per

³ *Id.*

1 kilowatt of demand and/or cents per kilowatt-hour energy charges) for each customer class,
2 as well as to the actual structure of an individual class rate. The rate design, or structure, of
3 a given class rate may range in complexity from a simple structure consisting of a monthly
4 customer charge and a flat charge per kilowatt-hour (such as the Company's Residential
5 Anytime User summer rate), to a more complex set of customer, demand, tiered or time-
6 differentiated energy, and reactive charges (such as the Company's Small Primary Service
7 ("SPS") and Large Primary Service ("LPS") rate classes). In all instances, however, the
8 charges within a specific rate classification are established such that the application of these
9 individual charges to the total annual normalized customer class electrical usage and other
10 applicable billing units for the test year will result in the collection of the targeted annual
11 revenue requirement of each of the Company's retail rate classes.

12 **Q. Is the Company proposing any addition or elimination of customer**
13 **classes?**

14 A. Yes. The Company proposes to eliminate the 12(M) customer class rate
15 schedule.

16 **Q. Please explain the elimination of the 12(M) rate schedule.**

17 A. The 12(M) tariffs and rates were created to serve a specific customer that is
18 no longer taking service from the Company and does not anticipate taking service from the
19 Company in the future. In fact, File No. ED-2019-0309 concerns the cancellation of the
20 Certificate of Convenience and Necessity ("CCN") that was originally issued by the
21 Commission in 2005 for Noranda Aluminum ("Noranda"). In late 2004, Ameren Missouri
22 entered into an agreement with Noranda under which Ameren Missouri would provide

1 regulated retail electric service for a term of 15 years, subject to obtaining the required
2 CCN to expand Ameren Missouri's service territory to encompass the property that is now
3 owned by another entity. Concurrently with the CCN, the Company filed for approval of a
4 new rate schedule, the Large Transmission Service ("LTS" or 12(M)) rate, the design of
5 which was specifically created based on the cost to serve Noranda and its business
6 operations. The tariff was not designed in anticipation of the cost to serve any other
7 customer; there is a substantial interdependency between Noranda and the 12(M) rate and
8 tariffs developed to serve its specific needs. Without that customer, there is no longer a
9 need for the customer class and tariff.

10 **Q. Is the Company proposing any changes to its rate structures?**

11 A. No.

12 **Q. Please describe the Company's rate design proposals in this case as they**
13 **apply to existing rates and schedules.**

14 A. Generally, the Company proposes to increase each of the charges for each
15 customer class by the same percentage. Implementing a rate increase in this fashion ensures
16 that customers within each respective class experience the same percentage rate increase.

17 There are, however, two exceptions to this proposed methodology:

18 The first exception are the changes to the Customer Charges across the Residential
19 rate class options. The justification for these shifts is detailed in Company witness Steven
20 Wills' direct testimony in this case along with a summary of the proposed Residential
21 Customer Charges in Table 6 of his testimony.

1 The second exception applies to certain non-residential charges that require the
2 same changes across comparable rate classes to maintain consistency. Specifically, the
3 three charges below need to remain consistent for SPS and LPS customers because these
4 costs are effectively the same regardless of the customer class:

- 5 1) The monthly customer charge;
- 6 2) The Rider B credits (customer-owned substation discounts); and
- 7 3) The Reactive charge.

8 **V. MISCELLANEOUS TARIFF UPDATES**

9 **Q. Aside from the rate tariff revisions that you have already described**
10 **above or that have been discussed by Company witness Wills (Residential rates), what**
11 **other updates to the Company's tariffs are you recommending?**

12 A. Below is a summary of the Miscellaneous Tariff updates included with this
13 filing:

- 14 1) An update to Misc. Charges, Sheet No. 63, adding a tampering/diversion
15 charge;
- 16 2) Updates to General Rules and Regulations;
- 17 3) 6(M) E&M Lighting updates, Sheet No. 59;
- 18 4) Removal of Unmetered Customer Charge from 2(M) Optional TOU rate,
19 Sheet No. 55;
- 20 5) Eliminate outdated Solar Rebate program (Rider SR), Sheet Nos 88.9-
21 88.13.

1 **Q. Please describe the addition of the Tampering/Diversion Charge on**
2 **tariff Sheet No. 63, Miscellaneous Charges.**

3 A. This updates the tariff and makes explicit the Tampering/Diversion Charge
4 being applied where tampering and/or diversion of electric service are found to occur. The
5 charge amount is also consistent with the charge in the Company's gas tariffs. The charge
6 has not increased, and is being added for transparency.

7 **Q. Please describe the updates to the General Rules and Regulations**
8 **Section V. Billing Practices.**

9 A. The Company proposes various updates summarized as follows:
10 Sheet No. 110: Eliminates outdated language in Section J., Non-Standard
11 Service.
12 Sheet No. 115: Correction to Section reference, Overhead Extensions To
13 Residential Subdivisions in Section 1.a.
14 Sheet No. 123: Correction to Special Facilities reference in Section 2.
15 Sheet No. 134: Updated language to Section 5 prohibiting eligibility for
16 optional rates under 2(M) when a large customer requests a temporary
17 transfer to the 2(M) rate class due to abnormal operations.
18 Sheet No. 137: Correction to Rent Inclusion section number reference.
19 Sheet No. 138: Correction to Missouri Code of State Regulations reference
20 in Partial Payments Section.
21 Sheet No. 138: Prospective removal of the Paperless Billing credit.

1 **Q. Please describe the prospective removal of the Paperless Billing credit**
2 **on tariff Sheet No. 138.**

3 A. The Company is proposing to cease enrollment of the Paperless Billing
4 credit at the conclusion of this proceeding and will pursue alternative strategies for
5 encouraging customers to consider paperless billing. To date, the Paperless Billing credit
6 has not been as effective as originally hoped at incenting customers to switch from paper
7 bills to paperless billing. The Company will continue to provide the credit to customers
8 who have already enrolled in Paperless Billing and have not received the full 12 months of
9 credit. The charge and associated language would be removed from tariffs in a future filing
10 once all customers have received the full credit.

11 **Q. Please describe the updates to the 6(M) Energy and Maintenance Rates**
12 **on Sheet No. 59.**

13 A. Consistent with past tariff updates to the 6M Lighting class, the Company
14 is updating the language describing the phase out of the Energy and Maintenance option
15 under the 6(M) rate class. The current tariff language states that the company "anticipates
16 eliminating 6(M) Energy & Maintenance service in the future, but not prior to 6/1/2022.
17 Customers remaining on Energy & Maintenance at that time will be transitioned to Energy
18 Only service." The updated language specifies the E&M rates will continue through June
19 30, 2024. At that time "fixtures will then be transitioned to Energy Only effective at the
20 beginning of the next billing period after this date except those fixtures which are eligible
21 for the Limited LED Conversion Option And Grandfathering Provision will continue on
22 the E&M Rate until they are converted to LED by the Company."

1 **Q. Please describe the removal of the Unmetered Customer Charge from**
2 **the 2(M) Optional TOU rate on Sheet No. 55.**

3 A. The 2(M) Optional TOU rate is limited to customers that have an AMI meter
4 per the tariff. This Unmetered Customer Charge option was erroneously added to the rate
5 schedule during the last rate case and the charge is not possible for this rate plan. There are
6 no unmetered customers on this 2(M) Optional TOU rate that requires an AMI meter.

7 **Q. Please describe the elimination of the Solar Rebate program (Rider SR)**
8 **on Sheet Nos. 88.9 – 88.13.**

9 A. This update eliminates the older solar rebate language that has expired and
10 no longer has any practical applicability. The current Rider SR Solar Rebate 2019-2023
11 language is still in effect on tariff Sheet Nos. 88 through 88.8.

12 **Q. Does this conclude your direct testimony?**

13 A. Yes, it does.

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

5th Revised

SHEET NO. 53

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

4th Revised

SHEET NO. 53

APPLYING TO MISSOURI SERVICE AREA

TABLE OF CONTENTS

RATES

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<u>MISCELLANEOUS CHARGES</u>		

*

*Indicates Change.

DATE OF ISSUE August 1, 2022

DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk
NAME OF OFFICER

Chairman & President
TITLE

St. Louis, Missouri
ADDRESS

MO.P.S.C. SCHEDULE NO. 66th RevisedSHEET NO. 54CANCELLING MO.P.S.C. SCHEDULE NO. 65th RevisedSHEET NO. 54

APPLYING TO

MISSOURI SERVICE AREA***SERVICE CLASSIFICATION NO. 1 (M)****RESIDENTIAL ANYTIME SERVICE****AVAILABILITY**

This rate is applicable to all residential customers that are not receiving service either through an advanced meter or under an optional residential rate, and that are supplied by the Company to individually metered residences or apartments consisting of one or more rooms for the use of one or more persons as a housekeeping unit with space for eating, living and sleeping, and permanent provisions for cooking and sanitation. For such customers being served through an advanced meter, this rate is applicable until such time that the Evening/Morning Saver rate becomes applicable by its terms, or at any time as an optional rate at the customer's election.

Additional service which may be provided under the provisions of this rate include any metered combination of residential and general farm service, or separately metered service related or incidental thereto, and individually metered mobile homes or boat slips intended for normal use by a single family.

DESCRIPTION

This rate has two parts: a basic service charge and an energy charge. Energy charges are based on how much energy (kWh) is used during the month. This rate does not vary by time-of-use or demand (how much energy is used at one time).

***RATES**

The monthly bill will consist of the following charges, plus adjustments:

Summer Rate (June through September) (1)

Customer Charge - per month	\$13.00
Low-Income Pilot Program Charge - per month	\$0.14
Energy Charge - per kWh	14.09¢

Winter Rate (October through May) (1)

Customer Charge - per month	\$13.00
Low-Income Pilot Program Charge - per month	\$0.14
Energy Charge - per kWh	
First 750 kWh	9.57¢
Over 750 kWh	6.42¢

(1) Refer to General Rules and Regulations, V. Billing Practices, Section A. Monthly Billing Periods, for specific applicability.

*Indicates Change.

DATE OF ISSUE August 1, 2022DATE EFFECTIVE September 3, 2022ISSUED BY Mark C. Birk
NAME OF OFFICERChairman & President
TITLESt. Louis, Missouri
ADDRESS

SCHEDULE MWH-D1

MO.P.S.C. SCHEDULE NO. 6 4th Revised SHEET NO. 54.3

CANCELLING MO.P.S.C. SCHEDULE NO. 6 3rd Revised SHEET NO. 54.3

APPLYING TO MISSOURI SERVICE AREA

***SERVICE CLASSIFICATION NO. 1 (M)**

RESIDENTIAL ANYTIME SERVICE (Cont'd.)

***GRANDFATHERED OPTIONAL TOD (TIME-OF-DAY) RATE PILOT**

Service under the TOD pilot is no longer offered for new enrollees. Existing residential customers who are currently receiving service under the TOD pilot will continue to be eligible to receive TOD service until the installation of an advanced meter. Upon installation of an advanced meter, the customer's service will transfer to the Residential Smart Saver rate schedule with the next applicable billing period, unless the customer opts for an alternative residential rate option.

Customer Charge - per month	\$11.00
Low-Income Pilot Program Charge - per month	\$0.14
Energy Charge - per kWh (1) (2)	
Summer (June-September billing periods)	
All On Peak kWh	38.02¢
All Off Peak kWh	8.93¢
Winter (October-May billing periods)	
First 750 kWh	9.57¢
Over 750 kWh	6.42¢

(1) Refer to General Rules and Regulations, V. Billing Practices, Section A. Monthly Billing Periods, for specific applicability.

(2) On-peak and Off-peak hours applicable herein are:

- Peak hours - 2:00 P.M. to 7:00 P.M., Monday through Friday.
- Off-peak hours - 7:00 P.M. of Monday through Thursday to 2:00 P.M. of the following day, and from 7:00 P.M. Friday to 2:00 P.M. Monday.

The Grandfathered Optional TOD (Time-Of-Day) Rate Pilot is subject to the following provisions:

- a. Customer will be transferred from this TOD rate option to the applicable non-TOD rate after the meter is removed.
- b. Any customer canceling this TOD option cannot thereafter resume billing under said option.
- c. Participation shall exclude customers with a net metering agreement.

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

MO.P.S.C. SCHEDULE NO. 64th RevisedSHEET NO. 54.4CANCELLING MO.P.S.C. SCHEDULE NO. 63rd RevisedSHEET NO. 54.4

APPLYING TO

MISSOURI SERVICE AREA*SERVICE CLASSIFICATION NO. 1 (M)RESIDENTIAL EVENING/MORNING SAVER SERVICEAVAILABILITY

This rate is available beginning January 1, 2021 to all residential customers being served through an advanced meter and supplied by the Company to individually metered residences and apartments consisting of one or more rooms for the use of one or more persons as a housekeeping unit with space for eating, living and sleeping, and permanent provisions for cooking and sanitation.

New customers or new accounts with an advanced meter, or existing accounts that have had an advanced meter for six months, shall be placed directly on the Daytime/Overnight rate at the beginning of their next bill cycle. Customers will have the option to request all other eligible rate options subject to the term of use and provisions of those rates and can return to this rate at any time.

DESCRIPTION

This rate has two parts: a basic service charge and an energy charge. The energy charge will vary by the time of day that the energy is used (On-Peak or Off-Peak). This rate does not include a demand charge.

*RATES

The monthly bill will consist of the following charges, plus adjustments:

Customer Charge - per month	\$13.00
Low-Income Pilot Program Charge - per month	\$0.14
Energy Charge - per kWh (1)	
Summer (June-September)	
All kWh	13.70¢
Energy Adjustment per On Peak kWh	+0.50¢
Winter (October-May)	
First 750 kWh	9.41¢
Over 750 kWh	6.27¢
Energy Adjustment per On Peak kWh	+0.25¢

(1) Refer to General Rules and Regulations, V. Billing Practices, Section A. Monthly Billing Periods, for specific applicability.

TIME PERIODS

On-peak and Off-peak hours applicable herein are:

Summer (June-September)

 Peak hours - 9:00 A.M. to 9:00 P.M., All days

Winter (October-May)

 Peak hours - 9:00 A.M. to 9:00 P.M., All days

*Indicates Change.

DATE OF ISSUE August 1, 2022DATE EFFECTIVE September 3, 2022ISSUED BY Mark C. Birk
NAME OF OFFICERChairman & President
TITLESt. Louis, Missouri
ADDRESS

SCHEDULE MWH-D1

MO.P.S.C. SCHEDULE NO. 62nd RevisedSHEET NO. 54.7CANCELLING MO.P.S.C. SCHEDULE NO. 61st RevisedSHEET NO. 54.7

APPLYING TO

MISSOURI SERVICE AREA***SERVICE CLASSIFICATION NO. 1 (M)****RESIDENTIAL SMART SAVER SERVICE****AVAILABILITY**

This optional rate is available at customer's election to all residential customers being served through an advanced meter and supplied by the Company to individually metered residences and apartments consisting of one or more rooms for the use of one or more persons as a housekeeping unit with space for eating, living and sleeping, and permanent provisions for cooking and sanitation.

***DESCRIPTION**

This rate has two parts: a basic service charge and an energy charge. The energy charge will vary by the time of day that the energy is used (On-Peak, Intermediate, Off-Peak), and the season (Summer or Winter). This rate does not have a demand charge. This rate has two options: year round service (Option A) and a summer seasonal service (Option B). Under Option B, energy charges will be billed under the Residential Smart Saver for the Summer period. The energy charges for the Winter season will be billed under the Residential Anytime rate schedule.

***RATES**

The monthly bill will consist of the following charges, plus adjustments:

Customer Charge - per month	
Summer (June-September; Option A & B)	\$11.00
Winter (October-May; Option A & B)	\$11.00
Low-Income Pilot Program Charge - per month	\$0.14
Energy Charge - per kWh(1)	
Summer(June-September; Option A & B)	
On Peak kWh	37.20¢
Intermediate kWh	11.17¢
Off Peak kWh	7.06¢
Winter(October-May; Option A)	
On Peak kWh	19.91¢
Intermediate kWh	7.15¢
Off Peak kWh	5.83¢
Winter(October-May; Option B)	(2)

(1) Refer to General Rules and Regulations, V. Billing Practices, Section A. Monthly Billing Periods, for specific applicability.

(2) Residential Anytime Service energy rates apply

***TIME PERIODS**

On-peak and Off-peak hours applicable herein are:

Summer (June-September)

 Peak hours - 3:00 P.M. to 7:00 P.M., Monday through Friday, excluding holidays (3)

 Intermediate hours - 6:00 A.M. to 10:00 P.M., All days, excluding Peak hours

 Off-Peak hours - 10:00 P.M. to 6:00 A.M., All days

*Indicates Change.

DATE OF ISSUE August 1, 2022DATE EFFECTIVE September 3, 2022ISSUED BY Mark C. Birk
NAME OF OFFICERChairman & President
TITLESt. Louis, Missouri
ADDRESS

SCHEDULE MWH-D1

MO.P.S.C. SCHEDULE NO. 6 2nd Revised SHEET NO. 54.10CANCELLING MO.P.S.C. SCHEDULE NO. 6 1st Revised SHEET NO. 54.10APPLYING TO MISSOURI SERVICE AREA

***SERVICE CLASSIFICATION NO. 1 (M)**
RESIDENTIAL OVERNIGHT SAVER SERVICE

AVAILABILITY

This optional rate is available at customer's election to all residential customers supplied by the Company to individually metered residences and apartments consisting of one or more rooms for the use of one or more persons as a housekeeping unit with space for eating, living and sleeping, and permanent provisions for cooking and sanitation. Where customers are not served through an advanced meter, an additional monthly service charge will apply.

***DESCRIPTION**

This rate has two parts: a basic service charge and an energy charge. The energy charge will vary by the time of day that the energy is used (On-Peak or Off-Peak). This rate does not include a demand charge.

This rate has two options: a year round service (Option A) and a summer seasonal service (Option B). Under Option B, energy charges will be billed to the Customer under Residential Overnight Saver Service for the Summer billing period. The energy charges for the Winter season will be billed under Residential Anytime Service.

***RATES**

The monthly bill will consist of the following charges, plus adjustments:

Customer Charge - per month	\$13.00
Non-AMI Meter Charge - per month	\$1.50
Low-Income Pilot Program Charge - per month	\$0.14
Energy Charge - per kWh(1)	
Summer(June-September; option A & B)	
On Peak kWh	16.51¢
Off Peak kWh	6.58¢
Winter(October-May; option A)	
On Peak kWh	9.29¢
Off Peak kWh	6.00¢
Winter(October-May; option B)	(2)

(1) Refer to General Rules and Regulations, V. Billing Practices, Section A. Monthly Billing Periods, for specific applicability.

(2) Residential Anytime Service energy rates apply.

TIME PERIODS

On-peak and Off-peak hours applicable herein are:

Summer (June-September)

 Peak hours - 6:00 A.M. to 10:00 P.M., All days

 Off-Peak hours - 10:00 P.M. to 6:00 A.M., All days

Winter (October-May)

 Peak hours - 6:00 A.M. to 10:00 P.M., All days

 Off-Peak hours - 10:00 P.M. to 6:00 A.M., All days

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

SCHEDULE MWH-D1

MO.P.S.C. SCHEDULE NO. 6 2nd Revised SHEET NO. 54.13

CANCELLING MO.P.S.C. SCHEDULE NO. 6 1st Revised SHEET NO. 54.13

APPLYING TO MISSOURI SERVICE AREA

***SERVICE CLASSIFICATION NO. 1 (M)**
RESIDENTIAL ULTIMATE SAVER SERVICE

AVAILABILITY

This optional rate is available as of January 1, 2021 at customer's election to all residential customers being served through an advanced meter and supplied by the Company to individually metered residences and apartments consisting of one or more rooms for the use of one or more persons as a housekeeping unit with space for eating, living and sleeping, and permanent provisions for cooking and sanitation.

DESCRIPTION

This rate has three parts: a basic service charge, an energy charge, and a demand charge. The energy charge will vary by the time of day that the energy is used (On-Peak or Off-Peak), and the season (Summer or Winter).

***RATES**

The monthly bill will consist of the following charges, plus adjustments:

Customer Charge - per month	\$9.00
Low-Income Pilot Program Charge - per month	\$0.14
Demand Charge - per monthly kW of billing demand (1)	
Summer (June-September) (1)	\$8.69
Winter (October-May) (1)	\$3.59
Energy Charge - per kWh (1)	
Summer (June-September)	
On Peak kWh	31.95¢
Off Peak kWh	5.41¢
Winter (October-May)	
On Peak kWh	17.37¢
Off Peak kWh	4.77¢

(1) Refer to General Rules and Regulations, V. Billing Practices, Section A. Monthly Billing Periods, for specific applicability.

On-peak and Off-peak hours applicable herein are:

Summer (June-September)

Peak hours - 3:00 P.M. to 7:00 P.M., Monday through Friday, excluding holidays (2)

Off-Peak hours - All other hours

Winter (October-May)

Peak hours - 6:00 A.M. to 8:00 A.M. and 6:00 P.M. to 8:00 P.M.
Monday through Friday, excluding holidays (2)

Off-Peak hours - All other hours

(2) Holidays of New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Thanksgiving Friday, Christmas Eve Day, and Christmas Day.

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
 NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 6th Revised SHEET NO. 55

CANCELLING MO.P.S.C. SCHEDULE NO. 6 5th Revised SHEET NO. 55

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 2 (M)

SMALL GENERAL SERVICE RATE

RATE BASED ON MONTHLY METER READINGS

*Standard Rate

Summer Rate	(June through September) (1)	
Customer Charge - per month		
Single Phase Service		\$12.65
Three Phase Service		\$24.21
Limited Unmetered Service		\$6.71
Low-Income Pilot Program Charge - per month		\$ 0.18
Energy Charge - per kWh		12.67¢
Winter Rate	(October through May) (1)	
Customer Charge - per month		
Single Phase Service		\$12.65
Three Phase Service		\$24.21
Limited Unmetered Service		\$6.71
Low-Income Pilot Program Charge - per month		\$ 0.18
Energy Charge - per kWh		
Base Use		9.47¢
Seasonal Use (2)		5.45¢

*Optional Overnight Saver Rate (3)

Customer Charge - per month		
Single Phase Service		\$12.65
Three Phase Service		\$24.21
Low-Income Pilot Program Charge - per month		\$0.18
Energy Charge - per kWh (4)		
Summer (June-September) (1)		
On Peak kWh		14.01¢
Off Peak kWh		8.37¢
Winter (October-May) (1)		
On Peak kWh		9.34¢
Off Peak kWh		5.96¢

*Legacy Optional Time-of-Day Rate

Customer Charge - per month		
Single Phase Service		\$24.25
Three Phase Service		\$47.36
Limited Unmetered Service		\$6.71
Low-Income Pilot Program Charge - per month		\$ 0.18
Energy Charge - per kWh (5)		
Summer (June-September) (1)		
All On Peak kWh		18.83¢
All Off Peak kWh		7.68¢
Winter (October-May) (1)		
All On Peak kWh		12.40¢
All Off Peak kWh		5.66¢

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 5th Revised SHEET NO. 55.1

CANCELLING MO.P.S.C. SCHEDULE NO. 6 4th 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.)

- (1) Refer to General Rules and Regulations, V. Billing Practices, Section A. Monthly Billing Periods, for specific applicability.
- (2) The winter seasonal energy use shall be all kWh in excess of 1,000 kWh per month and in excess of the lesser of a) the kWh use during the preceding May billing period, or b) the kWh use during the preceding October billing period, or c) the maximum monthly kWh use during any preceding summer month.
- * (3) Limited to customers that have an AMI meter and are not under a net metering agreement.
- (4) During all days and periods, the on-peak hours are 6:00 A.M. to 10:00 P.M. and the off-peak hours are 10:00 P.M. to 6:00 A.M.
- (5) On-peak and Off-peak hours applicable herein shall be as specified in Rider I, paragraph A.

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 Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 6th Revised SHEET NO. 56

CANCELLING MO.P.S.C. SCHEDULE NO. 6 5th Revised SHEET NO. 56

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 3 (M)
LARGE GENERAL SERVICE RATE

***RATE BASED ON MONTHLY METER READINGS**

Summer Rate (June through September) (1)

Customer Charge - per month	\$114.69
Low-Income Pilot Program Charge - per month	\$ 2.06
Energy Charge - per kWh	
First 150 kWh per kW of Billing Demand	11.76¢
Next 200 kWh per kW of Billing Demand	8.85¢
All Over 350 kWh per kW of Billing Demand	5.95¢
Demand Charge - per kW of Total Billing Demand	\$ 6.55

Winter Rate (October through May) (1)

Customer Charge - per month	\$114.69
Low-Income Pilot Program Charge - per month	\$ 2.06
Base Energy Charge - per kWh	
First 150 kWh per kW of Base Demand	7.39¢
Next 200 kWh per kW of Base Demand	5.49¢
All Over 350 kWh per kW of Base Demand	4.32¢
Seasonal Energy Charge - Seasonal kWh	4.32¢
Demand Charge - per kW of Total Billing Demand	\$ 2.43

Optional Time-of-Day Adjustments

Additional Customer Charge - per month	\$21.08
Energy Adjustment - per kWh	
	On-Peak Off-Peak
	<u>Hours (2)</u> <u>Hours (2)</u>
Summer kWh (June-September) (1)	+1.14¢ -0.65¢
Winter kWh (October-May) (1)	+0.35¢ -0.19¢

(1) Refer to General Rules and Regulations, V. Billing Practices, Section A. Monthly Billing Periods, for specific applicability.

(2) On-peak and off-peak hours applicable herein shall be as specified in Rider I, paragraph A.

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 6th Revised SHEET NO. 57

CANCELLING MO.P.S.C. SCHEDULE NO. 6 5th Revised SHEET NO. 57

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 4 (M)
SMALL PRIMARY SERVICE RATE

***RATE BASED ON MONTHLY METER READINGS**

Summer Rate (June through September) (1)

Customer Charge - per month	\$392.92
Low-Income Pilot Program Charge - per month	\$ 2.06
Energy Charge - per kWh	
First 150 kWh per kW of Billing Demand	11.41¢
Next 200 kWh per kW of Billing Demand	8.58¢
All Over 350 kWh per kW of Billing Demand	5.77¢
Demand Charge - per kW of Total Billing Demand	\$ 5.65
Reactive Charge - per kVar	42.00¢

Winter Rate (October through May) (1)

Customer Charge - per month	\$392.92
Low-Income Pilot Program Charge - per month	\$ 2.06
Base Energy Charge - per kWh	
First 150 kWh per kW of Base Demand	7.18¢
Next 200 kWh per kW of Base Demand	5.34¢
All Over 350 kWh per kW of Base Demand	4.17¢
Seasonal Energy Charge - Seasonal kWh	4.17¢
Demand Charge - per kW of Total Billing Demand	\$ 2.05
Reactive Charge - per kVar	42.00¢

Optional Time-of-Day Adjustments

Additional Customer Charge - per Month	\$21.08 per month	
Energy Adjustment - per kWh	On-Peak	Off-Peak
	<u>Hours (2)</u>	<u>Hours (2)</u>
Summer kWh (June-September) (1)	+0.84¢	-0.48¢
Winter kWh (October-May) (1)	+0.31¢	-0.18¢

- (1) Refer to General Rules and Regulations, V. Billing Practices, Section A. Monthly Billing Periods, for specific applicability.
- (2) On-peak and off-peak hours applicable herein shall be as specified within this service classification.

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

7th Revised

SHEET NO. 58

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

6th Revised

SHEET NO. 58

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 5 (M)
STREET AND OUTDOOR AREA LIGHTING - COMPANY-OWNED

***RATE PER UNIT PER MONTH LAMP AND FIXTURE**

A. LED bracket mounted luminaire on existing wood pole:

<u>Identification</u>	<u>Rate</u>
100W Equivalent (1)	\$11.91
250W Equivalent (1)	\$19.23
400W Equivalent (1)	\$35.30

(1) The equivalent wattage represents the rating of the high pressure sodium lamp that the LED replaces.

B. LED directional flood luminaire; limited to installations accessible to Company basket truck:

<u>Identification</u>	<u>Rate</u>
Directional - Small	\$25.02
Directional - Medium	\$40.11
Directional - Large	\$79.95

C. LED post-top luminaire including standard 17-foot post:

<u>Identification</u>	<u>Rate</u>
All Styles	\$26.43

The High Pressure Sodium and Mercury Vapor offerings under sections D. and E. below are no longer available. Company will replace these existing fixtures, upon failure, with an LED fixture under section A.

D. Standard horizontal burning, enclosed luminaire on existing wood pole:

<u>High Pressure Sodium</u>		<u>Mercury Vapor</u>	
<u>Lumens</u>	<u>Rate</u>	<u>Lumens</u>	<u>Rate</u>
9,500	\$14.75	6,800	\$14.16
25,500	\$20.38	20,000	\$19.39
50,000	\$36.83	54,000	\$32.72

E. Standard side mounted, hood with open bottom glassware on existing wood pole:

<u>High Pressure Sodium</u>		<u>Mercury Vapor</u>	
<u>Lumens</u>	<u>Rate</u>	<u>Lumens</u>	<u>Rate</u>
5,800	\$12.14	3,300	\$11.75
9,500	\$12.95	6,800	\$12.36

*Indicates Change.

DATE OF ISSUE August 1, 2022

DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President
NAME OF OFFICER TITLE

St. Louis, Missouri
ADDRESS

SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 7th Revised SHEET NO. 58.1

CANCELLING MO.P.S.C. SCHEDULE NO. 6 6th Revised SHEET NO. 58.1

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 5 (M)

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

***RATE PER UNIT PER MONTH LAMP AND FIXTURE (Cont'd.)**

The High Pressure Sodium, Metal Halide and Mercury Vapor offerings under section F. below are no longer available for new installations. Company will replace these existing fixtures, upon failure, with an LED fixture under section B.

F. Pole-mounted, directional flood luminaire; limited to installations accessible to Company basket truck:

<u>High Pressure Sodium</u>		<u>Metal Halide</u>		<u>Mercury Vapor</u>	
<u>Lumens</u>	<u>Rate</u>	<u>Lumens</u>	<u>Rate</u>	<u>Lumens</u>	<u>Rate</u>
25,500	\$26.48	34,000	\$25.49	20,000	\$25.45
50,000	\$41.89	100,000	\$82.78	54,000	\$37.78

The High Pressure Sodium and Mercury Vapor offerings under sections G. below are no longer available for new installations.

G. Standard post-top luminaire including standard 17-foot post:

<u>High Pressure Sodium</u>		<u>Mercury Vapor (1)</u>	
<u>Lumens</u>	<u>Rate</u>	<u>Lumens</u>	<u>Rate</u>
9,500	\$27.69	3,300	\$26.07
		6,800	\$27.09

(1) Mercury Vapor lamps and fixtures are limited to customers served under contracts initiated prior to September 27, 1988. Company will continue to maintain these lamps and fixtures so long as parts are economically available.

H. All poles and cable, where required to provide lighting service:
The installation of all standard poles and cables shall be paid for in advance by customer, with all subsequent replacements of said facilities provided by Company.

I. Former Subsidiary Company lighting units provided under contracts initiated prior to April 9, 1986, which facilities will only be maintained by Company so long as parts are available in Company's present stock:

<u>Lamp and Fixture</u>	<u>Per Unit Monthly Rate</u>
11,000 Lumens, Mercury Vapor, Open Bottom	\$11.77
140,000 Lumens, H.P. Sodium, Directional	\$83.47

Term of Contract Minimum term of three (3) years where only standard facilities are installed; ten (10) years where post-top luminaires are installed.

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

7th Revised SHEET NO. 59

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

6th 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 \$8.83 per month
 Energy Charge 5.58¢ per kWh

*RATE PER UNIT PER MONTH

	<u>Energy & Maintenance(1)</u>	<u>Energy Only</u>
<u>H.P. Sodium</u>		
9,500 Lumens, Standard	\$ 4.65	\$ 2.16
25,500 Lumens, Standard	\$ 7.98	\$ 5.55
50,000 Lumens, Standard	\$ 11.44	\$ 8.72

Metal Halide

5,500 Lumens, Standard	\$ 6.79	\$ 2.27
12,900 Lumens, Standard	\$ 8.04	\$ 3.83

Mercury Vapor

3,300 Lumens, Standard	\$ 4.65	\$ 2.30
6,800 Lumens, Standard	\$ 5.98	\$ 3.74
11,000 Lumens, Standard	\$ 8.09	\$ 5.32
20,000 Lumens, Standard	\$10.63	\$ 8.21
54,000 Lumens, Standard	\$22.56	\$19.56

Light Emitting Diodes (LED)

Energy Charge - per rated wattage per month Energy Only
1.89¢

(1) Company will furnish electric energy, furnish and replace lamps, and adjust and replace control mechanisms, as required only through June 30, 2024. Fixtures will then be transitioned to Energy Only effective at the beginning of the next billing period after this date except those fixtures which are eligible for the Limited LED Conversion Option And Grandfathering Provision will continue on the E&M Rate until they are converted to LED by Company.

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.

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
 NAME OF OFFICER TITLE ADDRESS

SCHEDULE MWH-D1

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

2nd Revised

SHEET NO. 59.4

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

1st Revised

SHEET NO. 59.4

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 6 (M)

STREET AND OUTDOOR AREA LIGHTING - CUSTOMER-OWNED

(Cont'd.)

*** 4. LIMITED LED CONVERSION OPTION AND GRANDFATHERING PROVISION (Cont'd.)**

The monthly unmetered energy-only 6 (M) LED rate plus,
\$3.50 per month for a 100 watt equivalent LED fixture;
\$4.53 per month for a 250 watt equivalent LED fixture;
\$8.01 per month for a 400 watt equivalent LED fixture.

In addition, all other applicable charges under this Service Classification 6 (M) shall apply.

If customer requests, in writing, the termination of all or a portion of converted LEDs under this provision within ten years of the installation of the LED being terminated, customer shall pay in advance to Company \$100.00 per fixture for both the removal costs associated therewith and the loss of the remaining life value of such facilities. If said request for termination is made after the above ten year in-service period, and customer requests a new lighting installation within twelve months after the removal of the prior terminated lighting facilities, customer shall pay the amount specified earlier in this paragraph for all facilities previously removed prior to Company making any new lighting installation.

5. GENERAL RULES AND REGULATIONS

In addition to the above specific rules and regulations, all of Company's General Rules and Regulations shall apply to service supplied under this Service Classification.

*Indicates Change.

DATE OF ISSUE August 1, 2022

DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk
NAME OF OFFICER

Chairman & President
TITLE

St. Louis, Missouri
SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 6th Revised SHEET NO. 61

CANCELLING MO.P.S.C. SCHEDULE NO. 6 5th Revised SHEET NO. 61

APPLYING TO MISSOURI SERVICE AREA

SERVICE CLASSIFICATION NO. 11 (M)

LARGE PRIMARY SERVICE RATE

***RATE BASED ON MONTHLY METER READINGS**

Summer Rate (June through September) (1)

Customer Charge - per month	\$392.92
Low-Income Pilot Program Charge - per month	\$ 220.99
Energy Charge - per kWh	3.98¢
Demand Charge - per kW of Billing Demand	\$ 23.44
Reactive Charge - per kVar	42.00¢

Winter Rate (October through May) (1)

Customer Charge - per month	\$392.92
Low-Income Pilot Program Charge - per month	\$ 220.99
Energy Charge - per kWh	3.64¢
Demand Charge - per kW of Billing Demand	\$ 10.42
Reactive Charge - per kVar	42.00¢

Optional Time-of-Day Adjustments

Additional Customer Charge - per Month	\$21.08 per month	
Energy Adjustment - per kWh	On-Peak	Off-Peak
	<u>Hours (2)</u>	<u>Hours (2)</u>
Summer kWh (June-September) (1)	+0.64¢	-0.35¢
Winter kWh (October-May) (1)	+0.29¢	-0.18¢

- (1) Refer to General Rules and Regulations, V. Billing Practices, Section A. Monthly Billing Periods, for specific applicability.
- (2) On-peak and off-peak hours applicable herein shall be as specified within this service classification.

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

7th Revised

SHEET NO. 62

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

6th Revised

SHEET NO. 62

APPLYING TO MISSOURI SERVICE AREA

*

THIS SHEET RESERVED FOR FUTURE USE

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

SCHEDULE **MWH-D1**

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 62.1

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

1st Revised

SHEET NO. 62.1

APPLYING TO

MISSOURI SERVICE AREA

*

THIS SHEET RESERVED FOR FUTURE USE

*Indicates Change.

DATE OF ISSUE August 1, 2022

DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk
NAME OF OFFICER

Chairman & President
TITLE

St. Louis, Missouri
ADDRESS

SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 62.2

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

1st Revised

SHEET NO. 62.2

APPLYING TO

MISSOURI SERVICE AREA

*

THIS SHEET RESERVED FOR FUTURE USE

*Indicates Change.

DATE OF ISSUE August 1, 2022

DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk
NAME OF OFFICER

Chairman & President
TITLE

St. Louis, Missouri
ADDRESS

SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

1st Revised

SHEET NO. 62.3

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

Original

SHEET NO. 62.3

APPLYING TO

MISSOURI SERVICE AREA

*

THIS SHEET RESERVED FOR FUTURE USE

*Indicates Change.

DATE OF ISSUE August 1, 2022

DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk
NAME OF OFFICER

Chairman & President
TITLE

St. Louis, Missouri
ADDRESS

SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 62.4

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

1st Revised

SHEET NO. 62.4

APPLYING TO

MISSOURI SERVICE AREA

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SCHEDULE MWH-D1

APPLYING TO MISSOURI SERVICE AREA

MISCELLANEOUS CHARGES

Reconnection Charges per Connection Point

Applicable to Rider F - Annually Recurring Service, Par. B.3.: \$30.00

Applicable to General Rules & Regulations VII. Disconnection and Reconnection of Service, Reconnection of Service:

Where an operational AMI remote disconnect is not present: \$30.00

Where an operational AMI remote disconnect is present: \$ 5.00

Returned Check Fee \$25.00

Opt-Out Charges

Applicable to General Rules & Regulations IV. Measurement of Service, Remote Meter Reading Opt-Out:

One-time setup charge \$100.00

Non-Standard Meter Charge - per month \$40.00

Paperless Billing Incentive (Credit to Customer)

Applicable to General Rules & Regulations V. Billing Practices, Paperless Billing: \$0.50

*Tampering/Diversions Charge

Applicable to General Rules & Regulations I. General Provisions, Customer Obligations: \$210.00

Service Call Charge

Customer's reporting service problems may be charged a \$50.00 fee for a service call, if it is determined the problem is within the customer's electrical system.

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.

Monthly Service Monitoring Charge

Sheet No. 105, Section I \$500.00

****** Supplementary Service Minimum Monthly Charges

Applicable to Rider E - Supplementary Service , Section C-3:

Charges applicable during 4 monthly

billing periods of June through September Primary Service Rate

Customer Charge per month, plus \$392.92

Low-Income Pilot Program Charge - per month \$220.99

All kW @ \$ 23.44

Charges applicable during 8 monthly

billing periods of October through May Primary Service Rate

Customer Charge per month, plus \$392.92

Low-Income Pilot Program Charge - per month \$220.99

All kW @ \$ 10.42

*Indicates Addition.

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UNION ELECTRIC COMPANY

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

1st Revised

SHEET NO. 70.1

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

Original

SHEET NO. 70.1

APPLYING TO

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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UNION ELECTRIC COMPANY

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

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

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SHEET NO. 70.5

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

Original

SHEET NO. 70.5

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

1st Revised

SHEET NO. 70.6

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

Original

SHEET NO. 70.6

APPLYING TO

MISSOURI SERVICE AREA

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

1st Revised

SHEET NO. 70.7

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

Original

SHEET NO. 70.7

APPLYING TO

MISSOURI SERVICE AREA

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SCHEDULE MWH-D1

MO.P.S.C. SCHEDULE NO. 6 1st Revised SHEET NO. 71.16

CANCELLING MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 71.16

APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE

*** (Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

APPLICABILITY

This rider is applicable to kilowatt-hours (kWh) of energy supplied to customers served by the Company under Service Classification Nos. 1(M), 2(M), 3(M), 4(M), 5(M), 6(M), 11(M), and 12(M).

Costs passed through this Fuel and Purchased Power Adjustment Clause (FAC) reflect differences between actual fuel and purchased power costs, including transportation and emissions costs and revenues, net of off-system sales revenues (OSSR) (i.e., Actual Net Energy Costs (ANEC)) and Net Base Energy Costs (B), calculated and recovered as provided for herein.

The Accumulation Periods and Recovery Periods are as set forth in the following table:

<u>Accumulation Period (AP)</u>	<u>Recovery Period (RP)</u>
February through May	October through May
June through September	February through September
October through January	June through January

AP means the four (4) calendar months during which the actual costs and revenues subject to this rider will be accumulated for the purposes of determining the Fuel Adjustment Rate (FAR).

RP means the calendar months during which the FAR is applied to retail customer usage on a per kWh basis, as adjusted for service voltage. Notwithstanding that each RP covers a period of eight months, when an extraordinary event has occurred that results in an increase to actual net energy costs in an accumulation period, for good cause shown, subject to Commission approval after an opportunity for any party to be heard, the Company shall defer recovery beyond eight months over a period determined by the Commission upon a finding that the magnitude of the increase on customers of recovering the difference between actual net energy costs and net base energy costs for that accumulation period should be mitigated. The difference not recovered within the eight-month recovery period applicable to the accumulation period at issue will be added to subsequent recovery periods until recovered with a true-up at the end of the Commission approved extended recovery period.

The Company will make a FAR filing no later than sixty (60) days prior to the first day of the applicable Recovery Period above. All FAR filings shall be accompanied by detailed workpapers supporting the filing in an electronic format with all formulas intact.

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MO.P.S.C. SCHEDULE NO. 6 1st Revised SHEET NO. 71.17

CANCELLING MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 71.17

APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

***(Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

FAR DETERMINATION

Ninety five percent (95%) of the difference between ANEC and B for each respective AP will be utilized to calculate the FAR under this rider pursuant to the following formula with the results stated as a separate line item on the customers' bills.

For each FAR filing made, the FAR_{RP} is calculated as:

$$FAR_{RP} = [(ANEC - B) \times 95\% \pm I \pm P \pm TUP] / S_{RP}$$

Where:

ANEC = FC + PP + E ± R - OSSR

FC = Fuel costs and revenues associated with the Company's generating plants consisting of the following:

- 1) For fossil fuel plants:
 - A. the following costs and revenues (including applicable taxes) arising from steam plant operations recorded in FERC Account 501: coal commodity, gas, alternative fuels, Btu adjustments assessed by coal suppliers, quality adjustments related to the sulfur content of coal assessed by coal suppliers, railroad transportation, switching and demurrage charges, railcar repair and inspection costs, railcar depreciation, railcar lease costs, similar costs associated with other applicable modes of transportation, fuel hedging costs, fuel oil adjustments included in commodity and transportation costs, fuel additive costs included in commodity or transportation costs, oil costs, ash disposal costs and revenues, and expenses resulting from fuel and transportation portfolio optimization activities; provided that costs otherwise included in the foregoing associated with coal remaining at a coal plant after the coal plant ceases coal-fired generation shall be excluded from Factor FC;
 - B. the following costs and revenues reflected in FERC Account 502 for: consumable costs related to Air Quality Control System (AQCS) operation, such as urea, limestone, and powder activated carbon; and
 - C. the following costs and revenues (including applicable taxes) arising from non-steam plant operations recorded in FERC Account 547: natural gas generation costs related to commodity, oil, transportation, storage, capacity reservation, fuel losses, hedging, and revenues and expenses resulting from fuel and transportation portfolio optimization activities, but excluding fuel costs related to the Company's landfill gas generating plant known as Maryland Heights Energy Center; and
- 2) The following costs and revenues (including applicable taxes) arising from nuclear plant operations, recorded in FERC Account 518: nuclear fuel commodity expense, waste disposal expense, and nuclear fuel hedging costs.

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MO.P.S.C. SCHEDULE NO. 6 1st Revised SHEET NO. 71.18CANCELLING MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 71.18APPLYING TO MISSOURI SERVICE AREARIDER FACFUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

*** (Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

FAR DETERMINATION (Cont'd.)

- PP = Purchased power costs and revenues and consists of the following:
- 1) The following costs and revenues for purchased power reflected in FERC Account 555, excluding (a) amounts associated with the subscribed portions of Power Purchase Agreements dedicated to specific customers under the Renewable Choice Program tariff or any subsequent renewable subscription program that is approved by the Commission in an order that acknowledges that such program's impacts should be excluded from Factor PP, (b) all charges under Midcontinent Independent System Operator, Inc. ("MISO") Schedules 10, 16, 17 and 24 (or any successor to those MISO Schedules), (c) generation capacity charges for contracts with terms in excess of one (1) year, (d) amounts associated with energy purchased from the MISO market to serve digital currency mining by the Company, and (e) amounts for Renewable Energy Standard compliance that are included in Rider RESRAM. Such costs and revenues include:
 - A. MISO costs or revenues for MISO's energy and operating reserve market settlement charge types and capacity market settlement clearing costs or revenues associated with:
 - i. Energy;
 - ii. Losses;
 - iii. Congestion management:
 - a. Congestion;
 - b. Financial Transmission Rights; and
 - c. Auction Revenue Rights;
 - iv. Generation capacity acquired in MISO's capacity auction or market; provided such capacity is acquired for a term of one (1) year or less;
 - v. Revenue sufficiency guarantees;
 - vi. Revenue neutrality uplift;
 - vii. Net inadvertent energy distribution amounts;
 - viii. Ancillary Services:
 - a. Regulating reserve service (MISO Schedule 3, or its successor);
 - b. Energy imbalance service (MISO Schedule 4, or its successor);
 - c. Spinning reserve service (MISO Schedule 5, or its successor); and
 - d. Supplemental reserve service (MISO Schedule 6, or its successor); and
 - ix. Demand response:
 - a. Demand response allocation uplift; and
 - b. Emergency demand response cost allocation (MISO Schedule 30, or its successor)

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SCHEDULE MWH-D1

MO.P.S.C. SCHEDULE NO. 6 1st Revised SHEET NO. 71.19CANCELLING MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 71.19APPLYING TO MISSOURI SERVICE AREARIDER FACFUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

*** (Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

FAR DETERMINATION (Cont'd.)

B. Non-MISO costs or revenues as follows:

- i. If received from a centrally administered market (e.g. PJM/SPP), costs or revenues of an equivalent nature to those identified for the MISO costs or revenues specified in subpart A of part 1 above;
- ii. If not received from a centrally administered market:
 - a. Costs for purchases of energy; and
 - b. Costs for purchases of generation capacity, provided such capacity is acquired for a term of one (1) year or less; and

C. Realized losses and costs (including broker commissions and fees) minus realized gains for financial swap transactions for electrical energy that are entered into for the purpose of mitigating price volatility associated with anticipated purchases of electrical energy for those specific time periods when the Company does not have sufficient economic energy resources to meet its native load obligations, so long as such swaps are for up to a quantity of electrical energy equal to the expected energy shortfall and for a duration up to the expected length of the period during which the shortfall is expected to exist.

- 2) One and 84/100 percent (1.84%) of transmission service costs reflected in FERC Account 565 and one and 84/100 percent (1.84%) of transmission revenues reflected in FERC Account 456.1 (excluding (a) amounts associated with the subscribed portions of Purchased Power Agreements dedicated to specific customers under the Renewable Choice Program tariff or any subsequent renewable subscription program that is approved by the Commission in an order that acknowledges that such program's impacts should be excluded from this Factor PP, (b) costs or revenues under MISO Schedule 10, or any successor to that MISO Schedule), and (c) for Renewable Energy Standard compliance included in Rider RESRAM. Such transmission service costs and revenues included in Factor PP include:

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SCHEDULE MWH-D1

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

***(Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

FAR DETERMINATION (Cont'd.)

3) A. MISO costs and revenues associated with:

- i. Network transmission service (MISO Schedule 9 or its successor);
- ii. Point-to-point transmission service (MISO Schedules 7 and 8 or their successors);
- iii. System control and dispatch (MISO Schedule 1 or its successor);
- iv. Reactive supply and voltage control (MISO Schedule 2 or its successor);
- v. MISO Schedule 11 or its successor;
- vi. MISO Schedules 26, 26A, 26C, 26D, 37 and 38 or their successors;
- vii. MISO Schedule 33; and
- viii. MISO Schedules 41, 42-A, 42-B, 45 and 47;

B. Non-MISO costs and revenues associated with:

- i. Network transmission service;
- ii. Point-to-point transmission service;
- iii. System control and dispatch; and
- iv. Reactive supply and voltage control.

E = Costs and revenues for SO₂ and NO_x emissions allowances in FERC Accounts 411.8, 411.9, and 509, including those associated with hedging.

R = Net insurance recoveries for costs/revenues included in this Rider FAC (and the insurance premiums paid to maintain such insurance), and subrogation recoveries and settlement proceeds related to costs/revenues included in this Rider FAC.

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MO.P.S.C. SCHEDULE NO. 6 1st Revised SHEET NO. 71.21CANCELLING MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 71.21APPLYING TO MISSOURI SERVICE AREARIDER FACFUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

***(Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

FAR DETERMINATION (Cont'd.)

OSSR = Costs and revenues in FERC Account 447 (excluding (a) amounts associated with portions of Power Purchase Agreements dedicated to specific customers under the Renewable Choice Program tariff or any subsequent renewable subscription program that is approved by the Commission in an order that acknowledges that such program's impacts should be excluded from Factor OSSR, (b) amounts associated with generation assets dedicated, as of the date BF was determined, to specific customers under the Renewable Choice Program tariff or any subsequent renewable subscription program that is approved by the Commission in an order that acknowledges that such program's impacts should be excluded from Factor OSSR, (c) amounts associated with generation assets that began commercial operation after the date BF was determined and that were dedicated to specific customers under the Renewable Choice Program tariff or any subsequent renewable subscription program that is approved by the Commission in an order that acknowledges that such program's impacts should be excluded from Factor OSSR when it began commercial operation, or (d) for Renewable Energy Standard compliance included in Rider RESRAM) for:

1. Capacity;
2. Energy;
3. Ancillary services, including:
 - A. Regulating reserve service (MISO Schedule 3, or its successor);
 - B. Energy Imbalance Service (MISO Schedule 4, or its successor);
 - C. Spinning reserve service (MISO Schedule 5, or its successor); and
 - D. Supplemental reserve service (MISO Schedule 6, or its successor);
4. Make-whole payments, including:
 - A. Price volatility; and
 - B. Revenue sufficiency guarantee; and
5. Hedging.

For purposes of factors FC, E, and OSSR, "hedging" is defined as realized losses and costs (including broker commissions and fees associated with the hedging activities) minus realized gains associated with mitigating volatility in the Company's cost of fuel, off-system sales and emission allowances, including but not limited to, the Company's use of futures, options and over-the-counter derivatives including, without limitation, futures contracts, puts, calls, caps, floors, collars, and swaps.

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SCHEDULE MWH-D1

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

***(Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

FAR DETERMINATION (Cont'd.)

Notwithstanding anything to the contrary contained in the tariff sheets for Rider FAC, factors PP and OSSR shall not include costs and revenues for any undersubscribed portion of a permanent Community Solar Program resource allocated to shareholders under the approved stipulation in File No. ER-2021-0240.

Should FERC require any item covered by factors FC, PP, E or OSSR to be recorded in an account different than the FERC accounts listed in such factors, such items shall nevertheless be included in factor FC, PP, E or OSSR. In the month that the Company begins to record items in a different account, the Company will file with the Commission the previous account number, the new account number and what costs or revenues that flow through this Rider FAC are to be recorded in the account.

B = BF x S_{AP}

BF = The Base Factor, which is equal to the normalized value for the sum of allowable fuel costs (consistent with the term FC), plus cost of purchased power (consistent with the term PP), and emissions costs and revenues (consistent with the term E), less revenues from off-system sales (consistent with the term OSSR) divided by corresponding normalized retail kWh as adjusted for applicable losses. The normalized values referred to in the prior sentence shall be those values used to determine the revenue requirement in the Company's most recent rate case. The BF applicable to June through September calendar months (BF_{SUMMER}) is \$0.01323 per kWh. The BF applicable to October through May calendar months (BF_{WINTER}) is \$0.01192 per kWh.

S_{AP} = kWh during the AP that ended immediately prior to the FAR filing, as measured by taking the most recent kWh data for the retail component of the Company's load settled at its MISO CP node (AMMO.UE or successor node), but excluding kWh for digital currency mining operations by the Company, plus the metered net energy output of any generating station operating within its certificated service territory as a behind the meter resource in MISO, the output of which served to reduce the Company's load settled at its MISO CP node (AMMO.UE or successor node).

S_{RP} = Applicable RP estimated kWh representing the expected retail component of the Company's load settled at its MISO CP node (AMMO.UE or successor node) but excluding kWh for digital currency mining operations by the Company, plus the metered net energy output of any generating station operating within its certificated service territory as a behind the meter resource in MISO, the output of which served to reduce the Company's load settled at its MISO CP node (AMMO.UE or successor node).

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***(Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

FAR DETERMINATION (Cont'd.)

I = Interest applicable to (i) the difference between ANEC and B for all kWh of energy supplied during an AP until those costs have been recovered; (ii) refunds due to prudence reviews ("P"), if any; and (iii) all under- or over-recovery balances created through operation of this FAC, as determined in the true-up filings ("TUP") provided for herein. Interest shall be calculated monthly at a rate equal to the weighted average interest rate paid on the Company's short-term debt, applied to the month-end balance of items (i) through (iii) in the preceding sentence.

P = Prudence disallowance amount, if any, as defined below.

TUP = True-up amount as defined below.

The FAR, which will be multiplied by the Voltage Adjustment Factors (VAF) set forth below is calculated as:

FAR = The lower of (a) PFAR and (b) RAC.

where:

- FAR = Fuel Adjustment Rate applied to retail customer usage on a per kWh basis starting with the applicable Recovery Period following the FAR filing.
- FAR_{RP} = FAR Recovery Period rate component calculated to recover under- or over-collection during the Accumulation Period that ended immediately prior to the applicable filing.
- FAR_(RP-1) = FAR Recovery Period rate component for the under- or over-collection during the Accumulation Period immediately preceding the Accumulation Period that ended immediately prior to the application filing for FAR_{RP}.
- PFAR = The Preliminary FAR, which is the sum of FAR_{RP} and FAR_(RP-1)
- RAC = Rate Adjustment Cap: applies to the FAR rate and shall apply so long as the rate caps provided for by Section 393.1655, RSMo. are in effect, and shall be calculated by multiplying the rate as determined under Section 393.1655.4 by the 2.85% Compound Annual Growth Rate compounded for the amount of time in days that has passed since the effective date of rate schedules published to effectuate the Commission's Order that approved the Stipulation and Agreement that resolved File No. ER-2016-0179, and subtracting the then-current RESRAM rate under Rider RESRAM and the average base rate determined from the most recent general rate proceeding as calculated pursuant to Section 393.1655, and dividing that result by the weighted average voltage adjustment factor 1.0455%.

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SCHEDULE MWH-D1

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CANCELLING MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 71.24

APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

***(Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

FAR DETERMINATION (Cont'd.)

The Initial Rate Component For the Individual Service Classifications shall be determined by multiplying the FAR determined in accordance with the foregoing by the following Voltage Adjustment Factors (VAF):

Secondary Voltage Service (VAF _{SEC})	1.0539
Primary Voltage Service (VAF _{PRI})	1.0222
High Voltage Service (VAF _{HV})	1.0059
Transmission Voltage Service (VAF _{TRANS})	0.9928

Customers served by the Company under Service Classification No. 11(M), Large Primary Service, shall have their rate capped such that their FAR_{LPS} does not exceed RAC_{LPS}, where

RAC_{LPS} = Rate Adjustment Cap Applicable to LPS Class: applies to the FAR rate applicable to customers in the LPS class and shall apply so long as the rate caps provided for by Section 393.1655, RSMo. are in effect, and shall be calculated by multiplying the class average overall rate as determined under Section 393.1655.6 by the 2.00% Compound Annual Growth Rate compounded for the amount of time that has passed in days since the effective date of rate schedules published to effectuate the Commission's Order that approved the Stipulation and Agreement that resolved File No. ER-2016-0179, and subtracting the then-current RESRAM rate under Rider RESRAM and the class average base rate determined from the most recent general rate proceeding as calculated pursuant to Section 393.1655.

FAR_{LPS} = The lesser of (a) the Combined Initial Rate Component for RAC_{LPS} Comparison or (b) RAC_{LPS}.

Combined Initial Rate Component for RAC_{LPS} Comparison = The sum of the products of each of the Primary, High Voltage, and Transmission Initial Rate Components for the Individual Service Classifications and the applicable LPS Weighting Factors (WF):

Primary Voltage LPS Weighting Factor (WF _{PRI})	0.1587
High Voltage LPS Weighting Factor (WF _{HV})	0.3967
Transmission Voltage LPS Weighting Factor (WF _{TRANS})	0.4446

The Weighting Factors are the ratios between each voltage's annual kWh and total annual LPS kWh. The above Combined Initial Rate Component is developed for the purposes of determining if the statutory RAC_{LPS} has been exceeded, and if it has, calculating the FAR Shortfall Adder to be applied across all non-LPS service classifications in the immediately concluded AP.

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
 NAME OF OFFICER TITLE ADDRESS

MO.P.S.C. SCHEDULE NO. 6 1st Revised SHEET NO. 71.25CANCELLING MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 71.25APPLYING TO MISSOURI SERVICE AREARIDER FACFUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

***(Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

FAR DETERMINATION (Cont'd.)

Where the Combined Initial Rate Component for RAC_{LPS} Comparison is greater than FAR_{LPS} , then a Per kWh FAR Shortfall Adder shall apply to each of the respective Initial Rate Components to be determined as follows:

Per kWh FAR Shortfall Adder = $((\text{Combined Initial Rate Component For } RAC_{LPS} \text{ Comparison} - FAR_{LPS}) \times SLPS) / (SRP - SRP-LPS)$

Where:

SLPS = Estimated Recovery Period LPS kWh sales at the retail meter
 SRP-LPS = Estimated Recovery Period LPS kwh sales at the Company's MISO CP Node (AMMO.UE or successor node)

The FAR Applicable to the Non-LPS Individual Service Classifications shall be determined as follows:

FARSEC = Initial Rate Component For Secondary Customers + (Per kWh FAR Shortfall Adder x VAFSEC)
 FARPRI = Initial Rate Component For Primary Customers + (Per kWh FAR Shortfall Adder x VAFPRI)
 FARHV = Initial Rate Component For High Voltage Customers + (Per kWh FAR Shortfall Adder x VAFHV)
 FARTRANS = Initial Rate Component For Transmission Customers + (Per kWh FAR Shortfall Adder x VAFTRANS)

The FAR Applicable to the LPS Individual Service Classifications shall be determined as follows:

LPSFARPRI = Initial Rate Component For Primary Customers x LPS RAC Cap Multiplier
 LPSFARHV = Initial Rate Component For High Voltage Customers x LPS RAC Cap Multiplier
 LPSFARTRANS = Initial Rate Component For Transmission Customers x LPS RAC Cap Multiplier

Where the LPS RAC Cap Multiplier is the FAR_{LPS} divided by the Combined Initial Rate Component for RAC_{LPS} Comparison.

The FAR applicable to the individual Service Classifications, including the calculations on Lines 24 through 29 of Rider FAC, shall be rounded to the nearest \$0.00001 to be charged on a \$/kWh basis for each applicable kWh billed.

TRUE-UP

After completion of each RP, the Company shall make a true-up filing on the same day as its FAR filing. Any true-up adjustments shall be reflected in TUP above. Interest on the true-up adjustment will be included in I above.

The true-up adjustments shall be the difference between the revenues billed and the revenues authorized for collection during the RP.

*Indicates Change.

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 1st Revised SHEET NO. 71.26

CANCELLING MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 71.26

APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

***(Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

GENERAL RATE CASE/PRUDENCE REVIEWS

The following shall apply to this FAC, in accordance with Section 386.266.4, RSMo. and applicable Missouri Public Service Commission Rules governing rate adjustment mechanisms established under Section 386.266, RSMo:

The Company shall file a general rate case with the effective date of new rates to be no later than four years after the effective date of a Commission order implementing or continuing this FAC. The four-year period referenced above shall not include any periods in which the Company is prohibited from collecting any charges under this FAC, or any period for which charges hereunder must be fully refunded. In the event a court determines that this FAC is unlawful and all moneys collected hereunder are fully refunded, the Company shall be relieved of the obligation under this FAC to file such a rate case.

Prudence reviews of the costs subject to this FAC shall occur no less frequently than every eighteen months, and any such costs which are determined by the Commission to have been imprudently incurred or incurred in violation of the terms of this rider shall be returned to customers. Adjustments by Commission order, if any, pursuant to any prudence review shall be included in the FAR calculation in P above unless a separate refund is ordered by the Commission. Interest on the prudence adjustment will be included in I above.

*Indicates Change.

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MO.P.S.C. SCHEDULE NO. 61st Revised SHEET NO. 71.27CANCELLING MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 71.27APPLYING TO MISSOURI SERVICE AREA**RIDER FAC****FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)****FAC CHARGE TYPE TABLE**

*(Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)

MISO Energy & Operating Reserve Market Settlement Charge Types and Capacity Market Charges and Credits

DA Asset Energy Amount;	RT Asset Energy Amount;
DA Congestion Rebate on Carve-out GFA;	RT Congestion Rebate on Carve-out GFA;
DA Congestion Rebate on Option B GFA;	RT Contingency Reserve Deployment Failure Charge Amount;
DA Financial Bilateral Transaction Congestion Amount;	RT Demand Response Allocation Uplift Charge;
DA Financial Bilateral Transaction Loss Amount;	RT Distribution of Losses Amount;
DA Loss Rebate on Carve-out GFA;	RT Excessive Energy Amount;
DA Loss Rebate on Option B GFA;	RT Excessive\Deficient Energy Deployment Charge Amount;
DA Non-Asset Energy Amount;	RT Financial Bilateral Transaction Congestion Amount;
DA Ramp Capability Amount;	RT Financial Bilateral Transaction Loss Amount;
DA Regulation Amount;	RT Loss Rebate on Carve-out GFA;
DA Revenue Sufficiency Guarantee Distribution Amount;	RT Miscellaneous Amount;
DA Revenue Sufficiency Guarantee Make Whole Payment Amount;	RT Ramp Capability Amount;
DA Spinning Reserve Amount;	Real Time MVP Distribution;
DA Supplemental Reserve Amount;	RT Net Inadvertent Distribution Amount;
DA Virtual Energy Amount;	RT Net Regulation Adjustment Amount;
FTR Annual Transaction Amount;	RT Non-Asset Energy Amount;
FTR ARR Revenue Amount;	RT Non-Excessive Energy Amount;
FTR ARR Stage 2 Distribution;	RT Price Volatility Make Whole Payment;
FTR Full Funding Guarantee Amount;	RT Regulation Amount;
FTR Guarantee Uplift Amount;	RT Regulation Cost Distribution Amount;
FTR Hourly Allocation Amount;	RT Resource Adequacy Auction Amount;
FTR Infeasible ARR Uplift Amount;	RT Revenue Neutrality Uplift Amount;
FTR Monthly Allocation Amount;	RT Revenue Sufficiency Guarantee First Pass Dist Amount;
FTR Monthly Transaction Amount;	RT Revenue Sufficiency Guarantee Make Whole Payment Amount;
FTR Yearly Allocation Amount;	RT Schedule 49 Distribution
FTR Transaction Amount;	RT Spinning Reserve Amount;
	RT Spinning Reserve Cost Distribution Amount;
	RT Supplemental Reserve Amount;
	RT Supplemental Reserve Cost Distribution Amount;
	RT Virtual Energy Amount;

MISO Transmission Service Settlement Schedules

MISO Schedule 1 (System control & dispatch);	MISO Schedule 41 (Charge to Recover Costs of Entergy Strom Securitization);
MISO Schedule 2 (Reactive supply & voltage control);	MISO Schedule 42A (Entergy Charge to Recover Interest);
MISO Schedule 7 & 8 (point to point transmission service);	MISO Schedule 42B (Entergy Credit associated with AFUDC);
MISO Schedule 9 (network transmission service);	MISO Schedule 45 (Cost Recovery of NERC Recommendation or Essential Action);
MISO Schedule 11 (Wholesale Distribution);	MISO Schedule 47 (Entergy Operating Companies MISO Transition Cost Recovery);
MISO Schedules 26, 26A, 37 & 38 (MTEP & MVP Cost Recovery);	
MISO Schedules 26-C & 26-D - (TMEP Cost Recovery);	
MISO Schedule 33 (Black Start Service);	

MISO Charge Types Which Appear On MISO Settlement Statements Represent Administrative Charges And Are Specifically Excluded From The FAC

DA Market Administration Amount;	RT Market Administration Amount;
DA Schedule 24 Allocation Amount;	RT Schedule 24 Allocation Amount;
FTR Market Administration Amount;	RT Schedule 24 Distribution Amount;
Schedule 10 - ISO Cost Recovery Adder;	Schedule 10 - FERC - Annual Charges Recovery;

*Indicates Addition.

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

FAC CHARGE TYPE TABLE (Cont'd.)

***(Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

PJM Market Settlement Charge Types

Auction Revenue Rights;
 Balancing Operating Reserve;
 Balancing Operating Reserve for Load Response;

 Balancing Spot Market Energy;
 Balancing Transmission Congestion;
 Balancing Transmission Losses;
 Capacity Resource Deficiency;
 Capacity Transfer Rights;
 Day-ahead Economic Load Response;
 Day-Ahead Load Response Charge Allocation;
 Day-ahead Operating Reserve;
 Day-ahead Operating Reserve for Load Response;
 Day-ahead Spot Market Energy;
 Day-ahead Transmission Congestion;
 Day-ahead Transmission Losses;
 Demand Resource and ILR Compliance Penalty;
 Emergency Energy;
 Emergency Load Response;
 Energy Imbalance Service;
 Financial Transmission Rights Auction;
 Generation Deactivation;
 Generation Resource Rating Test Failure;
 Inadvertent Interchange;
 Incremental Capacity Transfer Rights;
 Interruptible Load for Reliability;

Load Reconciliation for Inadvertent Interchange;
 Load Reconciliation for Operating Reserve Charge;
 Load Reconciliation for Regulation and Frequency Response Service;
 Load Reconciliation for Spot Market Energy;
 Load Reconciliation for Synchronized Reserve;
 Load Reconciliation for Synchronous Condensing;
 Load Reconciliation for Transmission Congestion;
 Load Reconciliation for Transmission Losses;
 Locational Reliability;
 Miscellaneous Bilateral;
 Non-Unit Specific Capacity Transaction;
 Peak Season Maintenance Compliance Penalty;
 Peak-Hour Period Availability;
 PJM Customer Payment Default;
 Planning Period Congestion Uplift;
 Planning Period Excess Congestion;
 Ramapo Phase Angle Regulators;
 Real-time Economic Load Response;
 Real-Time Load Response Charge Allocation;
 Regulation and Frequency Response Service;
 RPM Auction;
 Station Power;
 Synchronized Reserve;
 Synchronous Condensing;
 Transmission Congestion;
 Transmission Losses;

PJM Transmission Service Charge Types

Black Start Service;
 Day-ahead Scheduling Reserve;
 Direct Assignment Facilities;
 Expansion Cost Recovery;
 Firm Point-to-Point Transmission Service;
 Internal Firm Point-to-Point Transmission Service;
 Internal Non-Firm Point-to-Point Transmission Service;
 Load Reconciliation for PJM Scheduling, System Control and Dispatch Service;
 Load Reconciliation for PJM Scheduling, System Control and Dispatch Service Refund;
 Load Reconciliation for Reactive Services;
 Load Reconciliation for Transmission Owner Scheduling, System Control and Dispatch Service;
 Network Integration Transmission Service;
 Network Integration Transmission Service (exempt);

Network Integration Transmission Service Offset;
 Non-Firm Point-to-Point Transmission Service;
 Non-Zone Network Integration Transmission Service;
 Other Supporting Facilities;
 PJM Scheduling, System Control and Dispatch Service Refunds;
 PJM Scheduling, System Control and Dispatch Services;
 Qualifying Transmission Upgrade Compliance Penalty;
 Reactive Supply and Voltage Control from Generation and Other Sources Service;
 Transmission Enhancement;
 Transmission Owner Scheduling, System Control and Dispatch Service;
 Unscheduled Transmission Service;
 Reactive Services;

*Indicates Addition.

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APPLYING TO

MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

FAC CHARGE TYPE TABLE (Cont'd.)

*** (Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

PJM Charge Types Which Appear On The Settlement Statements Represent Administrative Charges Are Specifically Excluded From The FAC

Annual PJM Building Rent;	Michigan - Ontario Interface Phase Angle Regulators;
Annual PJM Cell Tower;	North American Electric Reliability Corporation
FERC Annual Charge Recovery;	(NERC);
Load Reconciliation for FERC Annual Charge Recovery;	Organization of PJM States, Inc. (OPSI) Funding;
Load Reconciliation for North American Electric Reliability Corporation (NERC);	PJM Annual Membership Fee;
Load Reconciliation for Organization of PJM States, Inc. (OPSI) Funding;	PJM Settlement, Inc.;
Load Reconciliation for Reliability First Corporation (RFC);	Reliability First Corporation (RFC);
Market Monitoring Unit (MMU) Funding;	RTO Start-up Cost Recovery;
	Virginia Retail Administrative Fee;

SPP Market Settlement Charge Types

DA Asset Energy Amount;	Transmission Congestion Rights Annual Closeout
DA Non-Asset Energy Amount;	Auction Revenue Rights Uplift
DA Make-Whole Payment Distribution;	Auction Revenue Rights Monthly Payback
DA Make-Whole Payment;;	Auction Revenue Rights Annual Payback
DA Virtual Energy;	DA Regulation Up
DA Virtual Energy Transaction Fee;	DA Regulation Down
DA Demand Reduction Amount;	DA Regulation Up Distribution
DA Demand Reduction Distribution Amount;	DA Regulation Down Distribution
DA GFA Carve-Out Daily Amount;	DA Spinning Reserve
DA GFA Carve-Out Monthly Amount;	DA Spinning Reserve Distribution
DA GFA Carve-Out Yearly Amount;	DA Supplemental Reserve
GFA Carve Out Distribution Daily Amount;	DA Supplemental Reserve Distribution
GFA Carve Out Distribution Monthly Amount;	RT Regulation Up
GFA Carve Out Distribution Yearly Amount;	RT Regulation Up Distribution
RT Asset Energy Amount	RT Regulation Down
RT Over Collected Losses Distribution;	RT Regulation Down Distribution
RT Miscellaneous Amount;	RT Regulation Out of Merit
RT Non-Asset Energy;	RT Spinning Reserve Amount
RT Revenue Neutrality Uplift;	RT Supplemental Reserve Amount
RT Joint Operating Agreement;	RT Spinning Reserve Cost Distribution Amount
RUC Make Whole Payment Distribution;	RT Supplemental Reserve Distribution Amount
RUC Make Whole Payment;	RT Regulation Non-Performance
RT Virtual Energy Amount;	RT Regulation Non-Performance Distribution
RT Demand Reduction Amount;	RT Regulation Deployment Adjustment;
RT Demand Reduction Distribution Amount;	RT Contingency Reserve Deployment Failure
Transmission Congestion Rights Daily Uplift;	RT Contingency Reserve Deployment Failure Distribution;
Transmission Congestion Rights Monthly Payback;	RT Reserve Sharing Group;
Transmission Congestion Rights Auction Transaction;	RT Reserve Sharing Group Distribution;
Transmission Congestion Rights Annual Payback;	RT Pseudo-Tie Congestion Amount;
Transmission Congestion Rights Funding;	RT Pseudo-Tie Losses Amount;
Auction Revenue Rights Annual Closeout;	RT Unused Regulation -Up Mileage Make Whole Payment;
Auction Revenue Rights Funding;	RT Unused Regulation -Down Mileage Make Whole Payment;

*Indicates Addition.

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 1st Revised SHEET NO. 71.30

CANCELLING MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 71.30

APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

FAC CHARGE TYPE TABLE (Cont'd.)

***(Applicable To Service Provided Between February 28, 2022 And The Day Before The Effective Date Of This Tariff)**

SPP Transmission Service Charge Types

- Schedule 1 - Scheduling, System Control & Dispatch Service;
- Schedule 2 - Reactive Voltage;
- Schedule 7 - Zonal Firm Point-to-Point;
- Schedule 8 - Zonal Non-Firm Point-to-Point;
- Schedule 11 - Base Plan Zonal and Regional;

SPP charge types representing administrative charges specifically excluded from the FAC

- Schedule 1A - Tariff Administrative Fee;
- Schedule 1A2 - Transmission Congestionk Rights Administratoin
- Schedule 1A3 - Integrated Marketplace Clearing Administration
- Schedule 1A4 - Integrated Marketplace Facilitation Administration
- Schedule 12 - FERC Assessment;

*Indicates Addition.

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SCHEDULE MWH-D1

APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE

(Applicable To Service Provided On The Effective Date Of This Tariff Sheet And Thereafter)

APPLICABILITY

This rider is applicable to kilowatt-hours (kWh) of energy supplied to customers served by the Company under Service Classification Nos. 1 (M), 2 (M), 3 (M), 4 (M), 5 (M), 6 (M), 11 (M), and 12 (M).

Costs passed through this Fuel and Purchased Power Adjustment Clause (FAC) reflect differences between actual fuel and purchased power costs, including transportation and emissions costs and revenues, net of off-system sales revenues (OSSR) (i.e., Actual Net Energy Costs (ANEC)) and Net Base Energy Costs (B), calculated and recovered as provided for herein.

The Accumulation Periods and Recovery Periods are as set forth in the following table:

<u>Accumulation Period (AP)</u>	<u>Recovery Period (RP)</u>
February through May	October through May
June through September	February through September
October through January	June through January

AP means the four (4) calendar months during which the actual costs and revenues subject to this rider will be accumulated for the purposes of determining the Fuel Adjustment Rate (FAR).

RP means the calendar months during which the FAR is applied to retail customer usage on a per kWh basis, as adjusted for service voltage. Notwithstanding that each RP covers a period of eight months, when an extraordinary event has occurred that results in an increase to actual net energy costs in an accumulation period, for good cause shown, subject to Commission approval after an opportunity for any party to be heard, the Company shall defer recovery beyond eight months over a period determined by the Commission upon a finding that the magnitude of the increase on customers of recovering the difference between actual net energy costs and net base energy costs for that accumulation period should be mitigated. The difference not recovered within the eight-month recovery period applicable to the accumulation period at issue will be added to subsequent recovery periods until recovered with a true-up at the end of the Commission approved extended recovery period.

The Company will make a FAR filing no later than sixty (60) days prior to the first day of the applicable Recovery Period above. All FAR filings shall be accompanied by detailed workpapers supporting the filing in an electronic format with all formulas intact.

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd)

(Applicable To Service Provided On The Effective Date Of This Tariff Sheet And Thereafter)

FAR DETERMINATION

Ninety five percent (95%) of the difference between ANEC and B for each respective AP will be utilized to calculate the FAR under this rider pursuant to the following formula with the results stated as a separate line item on the customers' bills.

For each FAR filing made, the FAR_{RP} is calculated as:

$$FAR_{RP} = [(ANEC - B) \times 95\% \pm I \pm P \pm TUP] / S_{RP}$$

Where:

$$ANEC = FC + PP + E \pm R - OSSR$$

FC = Fuel costs and revenues associated with the Company's generating plants consisting of the following:

- 1) For fossil fuel plants:
 - A. the following costs and revenues (including applicable taxes) arising from steam plant operations recorded in FERC Account 501: coal commodity, gas, alternative fuels, Btu adjustments assessed by coal suppliers, quality adjustments related to the sulfur content of coal assessed by coal suppliers, railroad transportation, switching and demurrage charges, railcar repair and inspection costs, railcar depreciation, railcar lease costs, similar costs associated with other applicable modes of transportation, fuel hedging costs, fuel oil adjustments included in commodity and transportation costs, fuel additive costs included in commodity or transportation costs, oil costs, ash disposal costs and revenues, and expenses resulting from fuel and transportation portfolio optimization activities; provided that costs otherwise included in the foregoing associated with coal remaining at a coal plant after the coal plant ceases coal-fired generation shall be excluded from Factor FC and instead deferred on the Company's books to a regulatory asset for consideration of recovery in a general rate proceeding over a reasonable amortization period as determined by the Commission;
 - B. the following costs and revenues reflected in FERC Account 502 for: consumable costs related to Air Quality Control System (AQCS) operation, such as urea, limestone, and powder activated carbon; and
 - C. the following costs and revenues (including applicable taxes) arising from non-steam plant operations recorded in FERC Account 547: natural gas generation costs related to commodity, oil, transportation, storage, capacity reservation, fuel losses, hedging, and revenues and expenses resulting from fuel and transportation portfolio optimization activities, but excluding fuel costs related to the Company's landfill gas generating plant known as Maryland Heights Energy Center; and

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Chairman & President
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St. Louis, Missouri
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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd)

(Applicable To Service Provided On The Effective Date Of This Tariff Sheet And Thereafter)

FAR DETERMINATION (Cont'd)

2) The following costs and revenues (including applicable taxes) arising from nuclear plant operations, recorded in FERC Account 518: nuclear fuel commodity expense, waste disposal expense, and nuclear fuel hedging costs.

PP = Purchased power costs and revenues and consists of the following:

1) The following costs and revenues for purchased power reflected in FERC Account 555, excluding (a) all charges under Midcontinent Independent System Operator, Inc. ("MISO") Schedules 10, 16, 17 and 24 (or any successor to those MISO Schedules), and (b) generation capacity charges for contracts with terms in excess of one (1) year, provided that the cost of capacity acquired from a jointly owned entity, whose Factors PP, OSSR, or T costs and revenues assigned by the entity to the Company are included in this Rider FAC, will be included in Factor PP regardless of the term. Such costs and revenues include:

- A. MISO costs or revenues for MISO's energy and operating reserve market settlement charge types and capacity market settlement clearing costs or revenues associated with:
 - i. Energy;
 - ii. Losses;
 - iii. Congestion management:
 - a. Congestion;
 - b. Financial Transmission Rights; and
 - c. Auction Revenue Rights;
 - iv. Generation capacity acquired in MISO's capacity auction or market; provided such capacity is acquired for a term of one (1) year or less;
 - v. Revenue sufficiency guarantees;
 - vi. Revenue neutrality uplift;
 - vii. Net inadvertent energy distribution amounts;
 - viii. Ancillary Services:
 - a. Regulating reserve service (MISO Schedule 3, or its successor);
 - b. Energy imbalance service (MISO Schedule 4, or its successor);
 - c. Spinning reserve service (MISO Schedule 5, or its successor);
 - d. Supplemental reserve service (MISO Schedule 6, or its successor); and
 - e. Short-term reserve service;
 - ix. Demand response:
 - a. Demand response allocation uplift; and
 - b. Emergency demand response cost allocation (MISO Schedule 30, or its successor);

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Original

SHEET NO. 71.35

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

SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

(Applicable To Service Provided On The Effective Date Of This Tariff Sheet And Thereafter)

FAR DETERMINATION (Cont'd.)

- B. Non-MISO costs or revenues as follows:
 - i. If received from a centrally administered market (e.g. PJM/SPP), costs or revenues of an equivalent nature to those identified for the MISO costs or revenues specified in subpart A of part 1 above;
 - ii. If not received from a centrally administered market:
 - a. Costs for purchases of energy; and
 - b. Costs for purchases of generation capacity, provided that either such capacity is acquired from a jointly owned entity whose Factors PP, OSSR, or T costs and revenues assigned by the entity to the Company are included in this Rider FAC, or such capacity is acquired for a term of one (1) year or less; and
- C. Realized losses and costs (including broker commissions and fees) minus realized gains for financial swap transactions for electrical energy that are entered into for the purpose of mitigating price volatility associated with anticipated purchases of electrical energy for those specific time periods when the Company does not have sufficient economic energy resources to meet its native load obligations, so long as such swaps are for up to a quantity of electrical energy equal to the expected energy shortfall and for a duration up to the expected length of the period during which the shortfall is expected to exist.
- 2) Four and 97/100 percent (4.97%) of transmission service costs reflected in FERC Account 565 and Four and 97/100 percent (4.97%) of transmission revenues reflected in FERC Account 456.1 (excluding costs or revenues under MISO Schedule 10, or any successor to that MISO Schedule). Such transmission service costs and revenues included in Factor PP include:
 - A. MISO costs and revenues associated with:
 - i. Network transmission service (MISO Schedule 9 or its successor);
 - ii. Point-to-point transmission service (MISO Schedules 7 and 8 or their successors);
 - iii. System control and dispatch (MISO Schedule 1 or its successor);
 - iv. Reactive supply and voltage control (MISO Schedule 2 or its successor);
 - v. MISO Schedules 26, 26A, 26C, 26D, 26E, 26F, 37 and 38 or their successors;
 - vi. MISO Schedule 33; and
 - vii. MISO Schedules 41, 42-A, 42-B, 45 and 47;

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NAME OF OFFICER

Chairman & President
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St. Louis, Missouri
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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

(Applicable To Service Provided On The Effective Date Of This Tariff Sheet And Thereafter)

FAR DETERMINATION (Cont'd.)

B. Non-MISO costs and revenues associated with:

- i. Network transmission service;
- ii. Point-to-point transmission service;
- iii. System control and dispatch; and
- iv. Reactive supply and voltage control.

E = Costs and revenues for SO₂ and NO_x emissions allowances in FERC Accounts 411.8, 411.9, and 509, including those associated with hedging.

R = Net insurance recoveries for costs/revenues included in this Rider FAC (and the insurance premiums paid to maintain such insurance), and subrogation recoveries and settlement proceeds related to costs/revenues included in this Rider FAC.

OSSR = Costs and revenues in FERC Account 447 for:

- 1) Capacity;
- 2) Energy;
- 3) Ancillary services, including:
 - A. Regulating reserve service (MISO Schedule 3, or its successor);
 - B. Energy Imbalance Service (MISO Schedule 4, or its successor);
 - C. Spinning reserve service (MISO Schedule 5, or its successor);
 - D. Supplemental reserve service (MISO Schedule 6, or its successor);
 - E. Ramp capability service; and
 - F. Short-term reserve service;
- 4) Make-whole payments, including:
 - A. Price volatility; and
 - B. Revenue sufficiency guarantee; and
- 5) Hedging.

For purposes of factors FC, E, and OSSR, "hedging" is defined as realized losses and costs (including broker commissions and fees associated with the hedging activities) minus realized gains associated with mitigating volatility in the Company's cost of fuel, off-system sales and emission allowances, including but not limited to, the Company's use of futures, options and over-the-counter derivatives including, without limitation, futures contracts, puts, calls, caps, floors, collars, and swaps.

Notwithstanding anything to the contrary contained in the tariff sheets for Rider FAC, factors PP and OSSR shall not include costs and revenues for any undersubscribed portion of a permanent Community Solar Program resource allocated to shareholders under the approved stipulation in File No. ER-2021-0240.

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

(Applicable To Service Provided On The Effective Date Of This Tariff Sheet And Thereafter)

FAR DETERMINATION (Cont'd.)

Notwithstanding anything to the contrary contained in the tariff sheets for Rider FAC, factors FC, PP and OSSR shall not include costs and revenues for (a) amounts associated with portions of Power Purchase Agreements dedicated to specific customers under the Renewable Choice Program tariff or any subsequent renewable subscription program that is approved by the Commission in an order that acknowledges that such program's impacts should be excluded from Factor OSSR, (b) amounts associated with generation assets dedicated, as of the date BF was determined, to specific customers under the Renewable Choice Program tariff or any subsequent renewable subscription program that is approved by the Commission in an order that acknowledges that such program's impacts should be excluded from Factor OSSR, (c) amounts associated with generation assets that began commercial operation after the date BF was determined and that were dedicated to specific customers under the Renewable Choice Program tariff or any subsequent renewable subscription program that is approved by the Commission in an order that acknowledges that such program's impacts should be excluded from Factor OSSR when it began commercial operation, (d) for Renewable Energy Standard compliance included in Rider RESRAM, (e) amounts associated with energy purchased from the MISO market to serve digital currency mining by the Company, and (f) those amounts specified by Commission Order approving any tariff, rider or program, to be excluded from Rider FAC.

Should FERC require any item covered by factors FC, PP, E or OSSR to be recorded in an account different than the FERC accounts listed in such factors, such items shall nevertheless be included in factor FC, PP, E or OSSR. In the month that the Company begins to record items in a different account, the Company will file with the Commission the previous account number, the new account number and what costs or revenues that flow through this Rider FAC are to be recorded in the account.

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SHEET NO. 71.38

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APPLYING TO MISSOURI SERVICE AREA

B = BF x S_{AP}

BF = The Base Factor, which is equal to the normalized value for the sum of allowable fuel costs (consistent with the term FC), plus cost of purchased power (consistent with the term PP), and emissions costs and revenues (consistent with the term E), less revenues from off-system sales (consistent with the term OSSR) divided by corresponding normalized retail kWh as adjusted for applicable losses. The normalized values referred to in the prior sentence shall be those values used to determine the revenue requirement in the Company's most recent rate case. The BF applicable to June through September calendar months (BF_{SUMMER}) is \$0.01448 per kWh. The BF applicable to October through May calendar months (BF_{WINTER}) is \$0.01312 per kWh.

S_{AP} = kWh during the AP that ended immediately prior to the FAR filing, as measured by taking the most recent kWh data for the retail component of the Company's load settled at its MISO CP node (AMMO.UE or successor node), but excluding kWh for digital currency mining operations by the Company, plus the metered net energy output of any generating station operating within its certificated service territory as a behind the meter resource in MISO, the output of which served to reduce the Company's load settled at its MISO CP node (AMMO.UE or successor node).

S_{RP} = Applicable RP estimated kWh representing the expected retail component of the Company's load settled at its MISO CP node (AMMO.UE or successor node) but excluding kWh for digital currency mining operations by the Company, plus the metered net energy output of any generating station operating within its certificated service territory as a behind the meter resource in MISO, the output of which served to reduce the Company's load settled at its MISO CP node (AMMO.UE or successor node).

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

(Applicable To Service Provided On The Effective Date Of This Tariff Sheet And Thereafter)

FAR DETERMINATION (Cont'd.)

I = Interest applicable to (i) the difference between ANEC and B for all kWh of energy supplied during an AP until those costs have been recovered;

(ii) refunds due to prudence reviews ("P"), if any; and (iii) all under- or over-recovery balances created through operation of this FAC, as determined in the true-up filings ("TUP") provided for herein. Interest shall be calculated monthly at a rate equal to the weighted average interest rate paid on the Company's short-term debt, applied to the month-end balance of items (i) through (iii) in the preceding sentence.

P = Prudence disallowance amount, if any, as defined below.

TUP = True-up amount as defined below.

The FAR, which will be multiplied by the Voltage Adjustment Factors (VAF) set forth below is calculated as:

FAR = The lower of (a) PFAR and (b) RAC.

where:

FAR = Fuel Adjustment Rate applied to retail customer usage on a per kWh basis starting with the applicable Recovery Period following the FAR filing.

FAR_{RP} = FAR Recovery Period rate component calculated to recover under- or over-collection during the Accumulation Period that ended immediately prior to the applicable filing.

FAR_(RP-1) = FAR Recovery Period rate component for the under- or over-collection during the Accumulation Period immediately preceding the Accumulation Period that ended immediately prior to the application filing for FAR_{RP}.

PFAR = The Preliminary FAR, which is the sum of FAR_{RP} and FAR_(RP-1)

RAC = Rate Adjustment Cap: applies to the FAR rate and shall apply so long as the rate caps provided for by Section 393.1655, RSMo. are in effect, and shall be calculated by multiplying the rate as determined under Section 393.1655.4 by the 2.85% Compound Annual Growth Rate compounded for the amount of time in days that has passed since the effective date of rate schedules published to effectuate the Commission's Order that approved the Stipulation and Agreement that resolved File No. ER-2016-0179, and subtracting the then-current RESRAM rate under Rider RESRAM and the average base rate determined from the most recent general rate proceeding as calculated pursuant to Section 393.1655, and dividing that result by the weighted average voltage adjustment factor 1.0455%.

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

(Applicable To Service Provided On The Effective Date Of This Tariff Sheet And Thereafter)

FAR DETERMINATION (Cont'd.)

The Initial Rate Component For the Individual Service Classifications shall be determined by multiplying the FAR determined in accordance with the foregoing by the following Voltage Adjustment Factors (VAF):

Secondary Voltage Service (VAF _{SEC})	1.0539
Primary Voltage Service (VAF _{PRI})	1.0222
High Voltage Service (VAF _{HV})	1.0059
Transmission Voltage Service (VAF _{TRANS})	0.9928

Customers served by the Company under Service Classification No. 11(M), Large Primary Service, shall have their rate capped such that their FAR_{LPS} does not exceed RAC_{LPS}, where

RAC_{LPS} = Rate Adjustment Cap Applicable to LPS Class: applies to the FAR rate applicable to customers in the LPS class and shall apply so long as the rate caps provided for by Section 393.1655, RSMo. are in effect, and shall be calculated by multiplying the class average overall rate as determined under Section 393.1655.6 by the 2.00% Compound Annual Growth Rate compounded for the amount of time that has passed in days since the effective date of rate schedules published to effectuate the Commission's Order that approved the Stipulation and Agreement that resolved File No. ER-2016-0179, and subtracting the then-current RESRAM rate under Rider RESRAM and the class average base rate determined from the most recent general rate proceeding as calculated pursuant to Section 393.1655.

FAR_{LPS} = The lesser of (a) the Combined Initial Rate Component for RAC_{LPS} Comparison or (b) RAC_{LPS}.

Combined Initial Rate Component for RAC_{LPS} Comparison = The sum of the products of each of the Primary, High Voltage, and Transmission Initial Rate Components for the Individual Service Classifications and the applicable LPS Weighting Factors(WF):

Primary Voltage LPS Weighting Factor (WF _{PRI})	0.1587
High Voltage LPS Weighting Factor (WF _{HV})	0.3967
Transmission Voltage LPS Weighting Factor (WF _{TRANS})	0.4446

The Weighting Factors are the ratios between each voltage's annual kWh and total annual LPS kWh. The above Combined Initial Rate Component is developed for the purposes of determining if the statutory RAC_{LPS} has been exceeded, and if it has, calculating the FAR Shortfall Adder to be applied across all non-LPS service classifications in the immediately concluded AP.

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

(Applicable To Service Provided On The Effective Date Of This Tariff Sheet And Thereafter)

FAR DETERMINATION (Cont'd.)

Where the Combined Initial Rate Component for RAC_{LPS} Comparison is greater than FAR_{LPS}, then a Per kWh FAR Shortfall Adder shall apply to each of the respective Initial Rate Components to be determined as follows:

Per kWh FAR Shortfall Adder = (((Combined Initial Rate Component For RAC_{LPS} Comparison - FAR_{LPS}) x SLPS) / (SRP - SRP-LPS))

Where:

- SLPS = Estimated Recovery Period LPS kWh sales at the retail meter
- SRP-LPS = Estimated Recovery Period LPS kwh sales at the Company's MISO CP Node (AMMO.UE or successor node)

The FAR Applicable to the Non-LPS Individual Service Classifications shall be determined as follows:

- FARSEC = Initial Rate Component For Secondary Customers + (Per kWh FAR Shortfall Adder x VAFSEC)
- FARPRI = Initial Rate Component For Primary Customers + (Per kWh FAR Shortfall Adder x VAFPRI)
- FARHV = Initial Rate Component For High Voltage Customers + (Per kWh FAR Shortfall Adder x VAFHV)
- FARTRANS = Initial Rate Component For Transmission Customers + (Per kWh FAR Shortfall Adder x VAFTRANS)

The FAR Applicable to the LPS Individual Service Classifications shall be determined as follows:

- LPSFARPRI = Initial Rate Component For Primary Customers x LPS RAC Cap Multiplier
- LPSFARHV = Initial Rate Component For High Voltage Customers x LPS RAC Cap Multiplier
- LPSFARTRANS = Initial Rate Component For Transmission Customers x LPS RAC Cap Multiplier

Where the LPS RAC Cap Multiplier is the FAR_{LPS} divided by the Combined Initial Rate Component for RAC_{LPS} Comparison.

The FAR applicable to the individual Service Classifications, including the calculations on Lines 24 through 29 of Rider FAC, shall be rounded to the nearest \$0.00001 to be charged on a \$/kWh basis for each applicable kWh billed.

TRUE-UP

After completion of each RP, the Company shall make a true-up filing on the same day as its FAR filing. Any true-up adjustments shall be reflected in TUP above. Interest on the true-up adjustment will be included in I above.

The true-up adjustments shall be the difference between the revenues billed and the revenues authorized for collection during the RP.

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

(Applicable To Service Provided On The Effective Date Of This Tariff Sheet And Thereafter)

GENERAL RATE CASE/PRUDENCE REVIEWS

The following shall apply to this FAC, in accordance with Section 386.266.4, RSMo. and applicable Missouri Public Service Commission Rules governing rate adjustment mechanisms established under Section 386.266, RSMo:

The Company shall file a general rate case with the effective date of new rates to be no later than four years after the effective date of a Commission order implementing or continuing this FAC. The four-year period referenced above shall not include any periods in which the Company is prohibited from collecting any charges under this FAC, or any period for which charges hereunder must be fully refunded. In the event a court determines that this FAC is unlawful and all moneys collected hereunder are fully refunded, the Company shall be relieved of the obligation under this FAC to file such a rate case.

Prudence reviews of the costs subject to this FAC shall occur no less frequently than every eighteen months, and any such costs which are determined by the Commission to have been imprudently incurred or incurred in violation of the terms of this rider shall be returned to customers. Adjustments by Commission order, if any, pursuant to any prudence review shall be included in the FAR calculation in P above unless a separate refund is ordered by the Commission. Interest on the prudence adjustment will be included in I above.

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

FAC CHARGE TYPE TABLE

MISO Energy & Operating Reserve Market Settlement Charge Types and Capacity Market Charges and Credits

DA Asset Energy Amount;	RT Asset Energy Amount;
DA Congestion Rebate on Carve-out GFA;	RT Congestion Rebate on Carve-out GFA;
DA Congestion Rebate on Option B GFA;	RT Contingency Reserve Deployment Failure Charge Amount;
DA Financial Bilateral Transaction Congestion Amount;	RT Demand Response Allocation Uplift Charge;
DA Financial Bilateral Transaction Loss Amount;	RT Distribution of Losses Amount;
DA Loss Rebate on Carve-out GFA;	RT Excessive Energy Amount;
DA Loss Rebate on Option B GFA;	RT Excessive\Deficient Energy Deployment Charge Amount;
DA Non-Asset Energy Amount;	RT Financial Bilateral Transaction Congestion Amount;
DA Ramp Capability Amount;	RT Financial Bilateral Transaction Loss Amount;
DA Regulation Amount;	RT Loss Rebate on Carve-out GFA;
DA Revenue Sufficiency Guarantee Distribution Amount;	RT Miscellaneous Amount;
DA Revenue Sufficiency Guarantee Make Whole Payment Amount;	RT Ramp Capability Amount;
DA Short-term Reserve Amount;	RT Net Inadvertent Distribution Amount;
DA Spinning Reserve Amount;	RT Net Regulation Adjustment Amount;
DA Supplemental Reserve Amount;	RT Non-Asset Energy Amount;
DA Virtual Energy Amount;	RT Non-Excessive Energy Amount;
FTR Annual Transaction Amount;	RT Price Volatility Make Whole Payment;
FTR ARR Revenue Amount;	RT Regulation Amount;
FTR ARR Stage 2 Distribution;	RT Regulation Cost Distribution Amount;
FTR Full Funding Guarantee Amount;	RT Resource Adequacy Auction Amount;
FTR Guarantee Uplift Amount;	RT Revenue Neutrality Uplift Amount;
FTR Hourly Allocation Amount;	RT Revenue Sufficiency Guarantee First Pass Dist Amount;
FTR Infeasible ARR Uplift Amount;	RT Revenue Sufficiency Guarantee Make Whole Payment Amount;
FTR Monthly Allocation Amount;	RT Schedule 49 Distribution;
FTR Monthly Transaction Amount;	RT Short-term Reserve Amount;
FTR Yearly Allocation Amount;	RT Spinning Reserve Amount;
FTR Transaction Amount;	RT Spinning Reserve Cost Distribution Amount;
	RT Supplemental Reserve Amount;
	RT Supplemental Reserve Cost Distribution Amount;
	RT Virtual Energy Amount;
	Short-term Reserve Cost Distribution Amount;
	Short-term Reserve Deployment Failure Charge Amount;

MISO Transmission Service Settlement Schedules

MISO Schedule 1 (System control & dispatch);	MISO Schedule 41 (Charge to Recover Costs of Entergy Strom Securitization);
MISO Schedule 2 (Reactive supply & voltage control);	MISO Schedule 42A (Entergy Charge to Recover Interest);
MISO Schedule 7 & 8 (point to point transmission service);	MISO Schedule 42B (Entergy Credit associated with AFUDC);
MISO Schedule 9 (network transmission service);	MISO Schedule 45 (Cost Recovery of NERC Recommendation or Essential Action);
MISO Schedules 26, 26A, 37 & 38 (MTEP & MVP Cost Recovery);	MISO Schedule 47 (Entergy Operating Companies MISO Transition Cost Recovery);
MISO Schedules 26-C & 26-D - (TMEP Cost Recovery);	
MISO Schedules 26-E & 26-F - (IMEP Cost Recovery);	
MISO Schedule 33 (Black Start Service);	

MISO Charge Types Which Appear On MISO Settlement Statements Represent Administrative Charges And Are Specifically Excluded From The FAC

DA Market Administration Amount;	RT Market Administration Amount;
DA Schedule 24 Allocation Amount;	RT Schedule 24 Allocation Amount;
FTR Market Administration Amount;	RT Schedule 24 Distribution Amount;
Schedule 10 - ISO Cost Recovery Adder;	Schedule 10 - FERC - Annual Charges Recovery;

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RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

FAC CHARGE TYPE TABLE (Cont'd.)

PJM Market Settlement Charge Types

Auction Revenue Rights;
Balancing Operating Reserve;
Balancing Operating Reserve for Load Response;

Balancing Spot Market Energy;
Balancing Transmission Congestion;
Balancing Transmission Losses;
Capacity Resource Deficiency;
Capacity Transfer Rights;
Day-ahead Economic Load Response;
Day-Ahead Load Response Charge Allocation;
Day-ahead Operating Reserve;
Day-ahead Operating Reserve for Load Response;
Day-ahead Spot Market Energy;
Day-ahead Transmission Congestion;
Day-ahead Transmission Losses;
Demand Resource and ILR Compliance Penalty;
Emergency Energy;
Emergency Load Response;
Energy Imbalance Service;
Financial Transmission Rights Auction;
Generation Deactivation;
Generation Resource Rating Test Failure;
Inadvertent Interchange;
Incremental Capacity Transfer Rights;
Interruptible Load for Reliability;

Load Reconciliation for Inadvertent Interchange;
Load Reconciliation for Operating Reserve Charge;
Load Reconciliation for Regulation and Frequency Response Service;
Load Reconciliation for Spot Market Energy;
Load Reconciliation for Synchronized Reserve;
Load Reconciliation for Synchronous Condensing;
Load Reconciliation for Transmission Congestion;
Load Reconciliation for Transmission Losses;
Locational Reliability;
Miscellaneous Bilateral;
Non-Unit Specific Capacity Transaction;
Peak Season Maintenance Compliance Penalty;
Peak-Hour Period Availability;
PJM Customer Payment Default;
Planning Period Congestion Uplift;
Planning Period Excess Congestion;
Ramapo Phase Angle Regulators;
Real-time Economic Load Response;
Real-Time Load Response Charge Allocation;
Regulation and Frequency Response Service;
RPM Auction;
Station Power;
Synchronized Reserve;
Synchronous Condensing;
Transmission Congestion;
Transmission Losses;

PJM Transmission Service Charge Types

Black Start Service;
Day-ahead Scheduling Reserve;
Direct Assignment Facilities;
Expansion Cost Recovery;
Firm Point-to-Point Transmission Service;
Internal Firm Point-to-Point Transmission Service;
Internal Non-Firm Point-to-Point Transmission Service;
Load Reconciliation for PJM Scheduling, System Control and Dispatch Service;
Load Reconciliation for PJM Scheduling, System Control and Dispatch Service Refund;
Load Reconciliation for Reactive Services;
Load Reconciliation for Transmission Owner Scheduling, System Control and Dispatch Service;
Network Integration Transmission Service;
Network Integration Transmission Service (exempt);

Network Integration Transmission Service Offset;
Non-Firm Point-to-Point Transmission Service;
Non-Zone Network Integration Transmission Service;
Other Supporting Facilities;
PJM Scheduling, System Control and Dispatch Service Refunds;
PJM Scheduling, System Control and Dispatch Services;
Qualifying Transmission Upgrade Compliance Penalty;
Reactive Supply and Voltage Control from Generation and Other Sources Service;
Transmission Enhancement;
Transmission Owner Scheduling, System Control and Dispatch Service;
Unscheduled Transmission Service;
Reactive Services;

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

FAC CHARGE TYPE TABLE (Cont'd.)

PJM Charge Types Which Appear On The Settlement Statements Represent Administrative Charges Are Specifically Excluded From The FAC

Annual PJM Building Rent;	Michigan - Ontario Interface Phase Angle Regulators;
Annual PJM Cell Tower;	North American Electric Reliability Corporation
FERC Annual Charge Recovery;	(NERC);
Load Reconciliation for FERC Annual Charge Recovery;	Organization of PJM States, Inc. (OPSI) Funding;
Load Reconciliation for North American Electric	PJM Annual Membership Fee;
Reliability Corporation (NERC);	PJM Settlement, Inc.;
Load Reconciliation for Organization of PJM States,	Reliability First Corporation (RFC);
Inc. (OPSI) Funding;	RTO Start-up Cost Recovery;
Load Reconciliation for Reliability First	Virginia Retail Administrative Fee;
Corporation (RFC);	
Market Monitoring Unit (MMU) Funding;	

SPP Market Settlement Charge Types

Auction Revenue Rights Annual Closeout	RT Asset Energy Amount
Auction Revenue Rights Annual Payback	RT Contingency Reserve Deployment Failure
Auction Revenue Rights Funding	RT Contingency Reserve Deployment Failure Distribution
Auction Revenue Rights Monthly Payback	RT Demand Reduction Amount
Auction Revenue Rights Uplift	RT Demand Reduction Distribution Amount
DA Asset Energy Amount	RT Joint Operating Agreement
DA Demand Reduction Amount	RT Miscellaneous Amount
DA Demand Reduction Distribution Amount	RT Non-Asset Energy
DA GFA Carve-Out Daily Amount	RT Over Collected Losses Distribution
DA GFA Carve-Out Monthly Amount	RT Pseudo-Tie Congestion Amount
DA GFA Carve-Out Yearly Amount	RT Pseudo-Tie Losses Amount
DA Make-Whole Payment Distribution	RT Ramp Capability Up Amount
DA Make-Whole Payment	RT Ramp Capability Down Amount
DA Non-Asset Energy Amount	RT Ramp Capability Up Distribution Amount
DA Ramp Capability Up Amount	RT Ramp Capability Down Distribution Amount
DA Ramp Capability Down Amount	RT Ramp Capability Non-Performance Distribution Amount
DA Ramp Capability Up Distribution Amount	RT Ramp Capability Non-Performance Amount
DA Ramp Capability Down Distribution Amount	RT Regulation Up
DA Regulation Up	RT Regulation Up Distribution
DA Regulation Down	RT Regulation Down
DA Regulation Up Distribution	RT Regulation Down Distribution
DA Regulation Down Distribution	RT Regulation Out of Merit
DA Spinning Reserve	RT Regulation Non-Performance
DA Spinning Reserve Distribution	RT Regulation Non-Performance Distribution
DA Supplemental Reserve	RT Regulation Deployment Adjustment
DA Supplemental Reserve Distribution	RT Reserve Sharing Group
DA Virtual Energy	RT Reserve Sharing Group Distribution
DA Virtual Energy Transaction Fee	RT Revenue Neutrality Uplift
GFA Carve Out Distribution Daily Amount	RT Spinning Reserve Amount
GFA Carve Out Distribution Monthly Amount	RT Supplemental Reserve Amount
GFA Carve Out Distribution Yearly Amount	RT Spinning Reserve Cost Distribution Amount
Transmission Congestion Rights Annual Closeout	RT Supplemental Reserve Distribution Amount
Transmission Congestion Rights Annual Payback	RT Unused Regulation -Up Mileage Make Whole Payment
Transmission Congestion Rights Auction Transaction	RT Unused Regulation -Down Mileage Make Whole Payment
Transmission Congestion Rights Daily Uplift	RT Virtual Energy Amount
Transmission Congestion Rights Funding	RUC Make Whole Payment Distribution
Transmission Congestion Rights Monthly Payback	RUC Make Whole Payment

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

FAC CHARGE TYPE TABLE (Cont'd.)

SPP Transmission Service Charge Types

- Schedule 1 - Scheduling, System Control & Dispatch Service;
- Schedule 2 - Reactive Voltage;
- Schedule 7 - Zonal Firm Point-to-Point;
- Schedule 8 - Zonal Non-Firm Point-to-Point;
- Schedule 11 - Base Plan Zonal and Regional;

SPP charge types representing administrative charges specifically excluded from the FAC

- Schedule 1A - Tariff Administrative Fee;
- Schedule 1A2 - Transmission Congestion Rights Administration
- Schedule 1A3 - Integrated Marketplace Clearing Administration
- Schedule 1A4 - Integrated Marketplace Facilitation Administration
- Schedule 12 - FERC Assessment;

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APPLYING TO MISSOURI SERVICE AREA

RIDER FAC

FUEL AND PURCHASED POWER ADJUSTMENT CLAUSE (Cont'd.)

(Applicable To services provided on XXXXXX through XXXXXX)

Calculation of Current Fuel Adjustment Rate (FAR):

Accumulation Period Ending:		
1.	Actual Net Energy Cost = (ANEC) (FC+PP+E+R -OSSR)	\$
2.	(B) = (BF x S _{AP})	- \$
2.1	Base Factor (BF)	\$/kWh
2.2	Accumulation Period Sales (S _{AP})	kWh
3.	Total Company Fuel and Purchased Power Difference	= \$
3.1	Customer Responsibility	x 95%
4.	Fuel and Purchased Power Amount to be Recovered	= \$
4.1	Interest (I)	- \$
4.2	True-Up Amount (TUP)	+ \$
4.3	Prudence Adjustment Amount (P)	± \$
5.	Fuel and Purchased Power Adjustment (FPA)	= \$
6.	Estimated Recovery Period Sales (S _{RP})	+ kWh
7.	Current Period Fuel Adjustment Rate (FAR _{RP})	= \$0.00000/kWh
8.	Prior Period Fuel Adjustment Rate (FAR _{RP-1})	+ \$0.00000/kWh
9.	Preliminary Fuel Adjustment Rate (PFAR)	= \$0.00000/kWh
10.	Rate Adjustment Cap (RAC)	= \$0.00000/kWh
11.	Fuel Adjustment Rate (FAR, lesser of PFAR and RAC)	= \$0.00000/kWh

Initial Rate Component for the Individual Service Classifications

12.	Secondary Voltage Adjustment Factor (VAF _{SEC})	= 1.0539
13.	Initial Rate Component for Secondary Customers	= \$0.00000/kWh
14.	Primary Voltage Adjustment Factor (VAF _{PRI})	= 1.0222
15.	Initial Rate Component for Primary Customers	= \$0.00000/kWh
16.	Primary LPS Weighting Factor (WF _{PRI})	= .1587
17.	High Voltage Adjustment Factor (VAF _{HV})	= 1.0059
18.	Initial Rate Component for High Voltage Customers	= \$0.00000/kWh
19.	High Voltage LPS Weighting Factor (WF _{HV})	= .3967
20.	Transmission Adjustment Factor (VAF _{TRANS})	= 0.9928
21.	Initial Rate Component for Transmission Customers	= \$0.00000/kWh
22.	Transmission Voltage LPS Weighting Factor (WF _{TRANS})	= .4446
23.	Combined Initial Rate Component for RAC _{LPS} Comparison	= \$0.00000/kWh

LPS Rate Adjustment Cap Components & Adder

24.	RAC _{LPS}	= \$0.00000/kWh
25.	Weighted Avg FAR for Large Primary Service (FAR _{LPS} , lesser of 23 and 24)	= \$0.00000/kWh
26.	Difference (Line 23 - Line 25) if applicable	= \$0.00000/kWh
27.	Estimated Recovery Period Metered Sales for LPS (S _{LPS})	= kWh
28.	FAR Shortfall Adder (Line 26 x Line 27)	= \$
29.	Per kWh FAR Shortfall Adder (Line 28 / (S _{RP} - SRP _{LPS}))	= \$0.00000/kWh

FAR Applicable to the Non-LPS Service Classifications

30.	FAR for Secondary (FAR _{SEC}) (Line 13 + (Line 29 x Line 12))	= \$0.00000/kWh
31.	FAR for Primary (FAR _{PRI}) (Line 15 + (Line 29 x Line 14))	= \$0.00000/kWh
32.	FAR for High Voltage (FAR _{HV}) (Line 18 + (Line 29 x Line 17))	= \$0.00000/kWh
33.	FAR for Transmission (FAR _{TRANS}) (Line 21 + (Line 29 x Line 20))	= \$0.00000/kWh

FAR Applicable to the LPS Service Classifications

34.	LPS RAC Cap Multiplier (Line 25 / Line 23))	= 1
35.	FAR for LPS Primary (LPSFAR _{PRI}) (Line 15 x Line 34)	= \$0.00000/kWh
36.	FAR for LPS High Voltage (LPSFAR _{HV}) (Line 18 x Line 34)	= \$0.00000/kWh
37.	FAR for LPS Transmission (LPSFAR _{TRANS}) (Line 21 x Line 34)	= \$0.00000/kWh

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Chairman & President
TITLE

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 72

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

1st Revised

SHEET NO. 72

APPLYING TO MISSOURI SERVICE AREA

*

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 72.1

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

1st Revised

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

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SHEET NO. 72.2

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

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SHEET NO. 72.2

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 72.3

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

1st Revised

SHEET NO. 72.3

APPLYING TO

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 72.4

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

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SHEET NO. 72.4

APPLYING TO

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 72.5

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

1st Revised

SHEET NO. 72.5

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 72.6

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

1st Revised

SHEET NO. 72.6

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 72.7

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

1st Revised

SHEET NO. 72.7

APPLYING TO

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 72.8

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

1st Revised

SHEET NO. 72.8

APPLYING TO

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

7th Revised

SHEET NO. 72.9

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

6th Revised

SHEET NO. 72.9

APPLYING TO

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

3rd Revised

SHEET NO. 73

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

2nd Revised

SHEET NO. 73

APPLYING TO MISSOURI SERVICE AREA

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 73.1

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

1st Revised

SHEET NO. 73.1

APPLYING TO

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 73.2

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

1st Revised

SHEET NO. 73.2

APPLYING TO

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 73.3

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

1st Revised

SHEET NO. 73.3

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 73.4

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

1st Revised

SHEET NO. 73.4

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UNION ELECTRIC COMPANY

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

2nd Revised

SHEET NO. 73.5

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

1st Revised

SHEET NO. 73.5

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

2nd Revised

SHEET NO. 73.6

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

1st Revised

SHEET NO. 73.6

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UNION ELECTRIC COMPANY

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

2nd Revised

SHEET NO. 73.7

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

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

2nd Revised

SHEET NO. 73.8

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

1st Revised

SHEET NO. 73.8

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

2nd Revised

SHEET NO. 73.9

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

1st Revised

SHEET NO. 73.9

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UNION ELECTRIC COMPANY

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

2nd Revised

SHEET NO. 73.10

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

1st Revised

SHEET NO. 73.10

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

7th Revised

SHEET NO. 73.11

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

6th Revised

SHEET NO. 73.11

APPLYING TO

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

5th Revised

SHEET NO. 75

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

4th Revised

SHEET NO. 75

APPLYING TO MISSOURI SERVICE AREA

RIDER B

DISCOUNTS APPLICABLE FOR SERVICE TO SUBSTATIONS OWNED
BY CUSTOMER IN LIEU OF COMPANY OWNERSHIP

Where a customer served under rate schedules 4 (M) or 11 (M) takes delivery of power and energy at a delivery voltage of 34kV or higher, Company will allow discounts from its applicable rate schedule as follows:

- *1. A monthly credit of \$1.38/kW of billing demand for customers taking service at 34.5 or 69kV.
- *2. A monthly credit of \$1.64/kW of billing demand for customers taking service at 115kV or higher.

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

1st Revised

SHEET NO. 84.2

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

Original

SHEET NO. 84.2

APPLYING TO

MISSOURI SERVICE AREA

RIDER RDC

RESERVE DISTRIBUTION CAPACITY RIDER (Cont'd.)

* DUPLICATE ON-SITE SUPPLY FACILITIES

Requests for duplicate supply facilities on the customer's premises, such as a second transformer or a second primary extension from a single supply feeder, shall be provided under provisions of Special Facilities of Company's General Rules and Regulations, Distribution System Extensions tariff.

TERM

Customer shall be required to sign a contract for an initial term of ten (10) years, cancelable by customer at any time after one (1) year with six (6) months' written notice to Company. Absent such cancellation during the initial term, the contract shall be automatically renewed for successive terms of one (1) year each, subject to termination by the giving of written notice, by either Company or customer, of at least six (6) months prior to the expiration of any renewal term.

Said contract shall be based on the Form of Contract included with this Rider RDC tariff and provided within ten days of execution to the Missouri Public Service Commission "Commission" Staff for informational purposes. The Company will file a revised Form of Contract tariff with the Commission before any significant modifications are made to said Contract.

GENERAL RULES AND REGULATIONS

In addition to the above specific rules and regulations, all of the Company's General Rules and Regulations shall apply to the supply of service under this Rider.

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MO.P.S.C. SCHEDULE NO. 6 6th Revised SHEET NO. 88CANCELLING MO.P.S.C. SCHEDULE NO. 6 5th Revised SHEET NO. 88APPLYING TO MISSOURI SERVICE AREARIDER SRSOLAR REBATE 2019-2023 - 393.1670*PURPOSE

The purpose of this Rider SR Solar Rebate 2019-2023 is to implement the solar rebate established through \$393.1670 RSMo and to establish the terms, conditions and procedures which the Company will rely on in accepting rebate applications and authorizing rebate payments to eligible participants for a qualifying solar electric system.

*AVAILABILITY

Except as otherwise provided herein, the Solar Rebate program is available to all customers receiving service under Service Classifications 1(M) Residential Service Rate, 2(M) Small General Service Rate, 3(M) Large General Service Rate, 4(M) Small Primary Service Rate, 6(M) Street and Outdoor Area Lighting - Customer-Owned, 11(M) Large Primary Service Rate, or 12(M) Large Transmission Service Rate.

Details concerning the current Rebate Commitment levels, Reservation Queue, and payment levels are posted on the Company's website at www.ameren.com and will be updated monthly.

Retail customers (customer) of Company are eligible for the solar rebate with the following limitations and conditions:

1. The customer must be an active account on the Company's system.
2. The System must be permanently installed on the customer's premise.
3. The customer must declare the installed System will remain in place on the account holder's premise for a minimum of ten (10) years.
4. The solar modules and inverters shall be new equipment and include a manufacturer's warranty of ten (10) years.
5. A retail electric account receiving service under 1(M) Residential Service will be eligible for a solar rebate not to exceed twenty-five kilowatts (25 KW) and all other service classification will be eligible for a solar rebate not to exceed one hundred fifty kilowatts (150 KW) of new or expanded capacity irrespective of the number of meters/service points associated with the account.
6. The System or expansion of an existing System must not become operational until after December 31, 2018 and must become operational on or before December 31, 2023.
7. The System shall meet all requirements of either: a) 20 CSR 4240-20.065 and Company's Electric Power Purchases from Qualified Net Metering Units tariff or b) 20 CSR-4240-20.060 and Company's Electric Power Purchase from Qualifying Facilities tariff.
8. The system must include a "Grid Support Utility Interactive Inverter" or inverters from Go Solar California's [approved list](#).

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

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

1st Revised

SHEET NO. 88.9

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

Original

SHEET NO. 88.9

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SHEET NO. 88.10

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

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

1st Revised

SHEET NO. 88.11

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

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SHEET NO. 88.11

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UNION ELECTRIC COMPANY

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

1st Revised

SHEET NO. 88.12

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

Original

SHEET NO. 88.12

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

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

1st Revised

SHEET NO. 88.13

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

Original

SHEET NO. 88.13

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 4th Revised SHEET NO. 89.4

CANCELLING MO.P.S.C. SCHEDULE NO. 6 3rd Revised SHEET NO. 89.4

APPLYING TO MISSOURI SERVICE AREA

***RIDER CSP**
COMMUNITY SOLAR PROGRAM (Cont'd.)

SOLAR ENERGY RATES

Subject to the Program Provisions and Special Terms:

Residential Service 1(M)	
Solar Generation Rate	\$ 0.XXXX
*Facilities Rate	\$ 0.0717
Community Solar Energy Rate	\$ 0.XXXX

Small General Service 2(M)	
Solar Generation Rate	\$ 0.XXXX
*Facilities Rate	\$ 0.0592
Community Solar Energy Rate	\$ 0.XXXX

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SCHEDULE MWH-D1

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 3rd Revised SHEET NO. 91.19

CANCELLING MO.P.S.C. SCHEDULE NO. 6 2nd Revised SHEET NO. 91.19

APPLYING TO MISSOURI SERVICE AREA

RIDER EEIC
ENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)
For MEEIA 2019-21 Plan

*** TD DETERMINATION (Cont'd.)**

NMR = Net Margin Revenue. NMR values for each applicable Service Classification and by End Use Category where applicable are as follows:

Month	Service Classifications	
	1 (M) Res \$/kWh	2 (M) SGS \$/kWh
January	0.05521	0.064573
February	0.055026	0.062829
March	0.056612	0.06567
April	0.061033	0.074268
May	0.062371	0.077683
June	0.125638	0.11144
July	0.125614	0.11144
August	0.125588	0.11144
September	0.125561	0.11144
October	0.057742	0.070701
November	0.06144	0.073331
December	0.057789	0.069087

Month	MISC./AIR COMP./ PROCESS/MOTORS			COOLING			EXT LIGHTING		
	3M	4M	11M	3M	4M	11M	3M	4M	11M
January	0.043217	0.043069	0.031634	0.045719	0.040834	0.023245	0.031944	0.030986	0.024778
February	0.043161	0.043462	0.030546	0.045679	0.040778	0.023245	0.031972	0.029586	0.024497
March	0.044393	0.043848	0.03188	0.047846	0.041718	0.023245	0.03265	0.029967	0.023463
April	0.044512	0.044957	0.035969	0.056479	0.052903	0.037422	0.033828	0.031128	0.025234
May	0.045636	0.0472	0.040008	0.061496	0.065532	0.062648	0.033091	0.030495	0.023604
June	0.088364	0.086482	0.063783	0.112404	0.114613	0.093786	0.056159	0.048767	0.026046
July	0.084939	0.082192	0.063554	0.104259	0.102165	0.075495	0.054323	0.047263	0.025387
August	0.085367	0.082877	0.062297	0.107037	0.107358	0.083072	0.053629	0.046982	0.026122
September	0.083409	0.08176	0.061559	0.111788	0.115004	0.096276	0.054504	0.047762	0.026029
October	0.044917	0.045592	0.040341	0.057931	0.058178	0.038979	0.032869	0.030225	0.023528
November	0.045875	0.046249	0.034981	0.057706	0.048206	0.023245	0.033368	0.030348	0.023269
December	0.044148	0.043084	0.032018	0.047159	0.043416	0.023245	0.032499	0.029857	0.023406

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & 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. 91.20

CANCELLING MO.P.S.C. SCHEDULE NO. 6 2nd Revised SHEET NO. 91.20

APPLYING TO MISSOURI SERVICE AREA

RIDER EEIC
ENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)
For MEEIA 2019-21 Plan

* **TD DETERMINATION (Cont'd.)**

Month	HVAC/BUILDING SHELL			LIGHTING			REFRIG.		
	3M	4M	11M	3M	4M	11M	3M	4M	11M
January	0.047897	0.05031	0.036474	0.04548	0.045735	0.033146	0.041496	0.040853	0.030158
February	0.048479	0.049028	0.034562	0.045146	0.045761	0.031385	0.041349	0.041137	0.029281
March	0.050912	0.049778	0.034467	0.046646	0.046446	0.032878	0.042493	0.042576	0.031554
April	0.049151	0.047087	0.036608	0.047331	0.048826	0.039577	0.043203	0.04368	0.035433
May	0.052951	0.055853	0.050745	0.048374	0.050826	0.043459	0.043835	0.044798	0.037673
June	0.111232	0.113239	0.092417	0.094024	0.093103	0.07026	0.084277	0.081699	0.060074
July	0.103719	0.101571	0.07496	0.090289	0.08738	0.068197	0.080908	0.077434	0.056443
August	0.106323	0.106552	0.08231	0.090825	0.089039	0.066666	0.081435	0.07844	0.057036
September	0.106937	0.109329	0.090351	0.086007	0.084808	0.064742	0.079556	0.077238	0.056836
October	0.050691	0.051498	0.039198	0.047555	0.048954	0.04447	0.043176	0.04336	0.038009
November	0.051738	0.04981	0.042571	0.048175	0.049172	0.036471	0.04403	0.043977	0.032837
December	0.048458	0.048641	0.031206	0.045848	0.044931	0.032701	0.042403	0.040899	0.03085

Month	COOK.			DHW			HEAT.		
	3M	4M	11M	3M	4M	11M	3M	4M	11M
January	0.04471	0.043845	0.031303	0.044192	0.042485	0.030114	0.04418	0.047919	0.036475
February	0.044358	0.044595	0.030284	0.043641	0.043622	0.029258	0.044817	0.046674	0.034579
March	0.045696	0.046895	0.034282	0.044676	0.046055	0.033486	0.047145	0.047644	0.034844
April	0.047455	0.049146	0.040679	0.046792	0.048236	0.039591	0.046939	0.046815	0.041043
May	0.048057	0.050411	0.043084	0.047523	0.049706	0.042409	0.044708	0.046685	0.037916
June	0.095405	0.094718	0.072417	0.095294	0.094588	0.074825	0.055536	0.048037	0.025281
July	0.091413	0.088824	0.06347	0.091414	0.087471	0.060252	0.053735	0.046545	0.025281
August	0.092308	0.090715	0.066538	0.092217	0.090613	0.065618	0.053014	0.046286	0.025281
September	0.08909	0.088422	0.068517	0.087817	0.086929	0.066958	0.086267	0.085113	0.065061
October	0.047229	0.048529	0.043791	0.046719	0.047885	0.043753	0.044724	0.046241	0.042071
November	0.047881	0.049334	0.035017	0.047469	0.048652	0.033951	0.046652	0.045628	0.043531
December	0.045902	0.044358	0.033562	0.045554	0.043483	0.033218	0.044425	0.045507	0.03121

Month	OFFICE			VENT		
	3M	4M	11M	3M	4M	11M
January	0.043188	0.043405	0.032061	0.041452	0.041537	0.030684
February	0.042921	0.043128	0.030484	0.041326	0.040977	0.029321
March	0.044098	0.043553	0.031668	0.042488	0.041705	0.030371
April	0.044391	0.044853	0.035881	0.043424	0.043768	0.035314
May	0.045485	0.046989	0.039802	0.044234	0.045333	0.038174
June	0.086163	0.083908	0.061064	0.083739	0.081068	0.058429
July	0.082916	0.080038	0.062421	0.081174	0.078132	0.059997
August	0.08325	0.080489	0.060352	0.081489	0.078502	0.058581
September	0.080032	0.077797	0.057419	0.078871	0.076433	0.055994
October	0.044784	0.045423	0.040171	0.043577	0.043885	0.03849
November	0.04555	0.045622	0.034592	0.043783	0.04306	0.032332
December	0.043515	0.042403	0.031056	0.042629	0.041667	0.030644

*Indicates Change.

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ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
 NAME OF OFFICER TITLE ADDRESS

SCHEDULE MWH-D1

APPLYING TO MISSOURI SERVICE AREA

RIDER SSR

STANDBY SERVICE RIDER (Cont'd.)

*STANDBY RATE			
	Large General Service	Small Primary Service	Large Primary Service
Standby Fixed Charges			
Administrative Charge	\$187.00/month	\$187.00/month	\$187.00/month
Generation and Transmission Access Charge per month per kW of Contracted Standby Demand	\$0.76/kW	\$0.76/kW	\$0.89/kW
Facilities Charge per month per kW of Contracted Standby Demand:			
Summer	\$5.19/kW	\$4.29/kW	\$4.29/kW
Winter	\$1.37/kW	\$0.99/kW	\$0.99/kW
Daily Standby Demand Rate – Summer			
Per kW of Daily Standby Service Demand:			
Back-Up	\$0.04/kW	\$0.04/kW	\$1.22/kW
Maintenance	\$0.02/kW	\$0.02/kW	\$0.61/kW
Daily Standby Demand Rate - Winter			
Per kW of Daily Standby Service Demand:			
Back-Up	\$0.02/kW	\$0.02/kW	\$0.57/kW
Maintenance	\$0.01/kW	\$0.01/kW	\$0.28/kW
Back-Up Energy Charges – Summer			
kWh in excess of Supplemental Contract Capacity			
Energy ⁽¹⁾	11.76¢/kWh	11.41¢/kWh	3.98¢/kWh
On-Peak Energy ⁽²⁾	12.90¢/kWh	12.25¢/kWh	4.62¢/kWh
Off-Peak Energy ⁽²⁾	11.11¢/kWh	10.93¢/kWh	3.63¢/kWh
Back-Up Energy Charges – Winter			
kWh in excess of Supplemental Contract Capacity			
Energy ⁽¹⁾	7.39¢/kWh	7.18¢/kWh	3.64¢/kWh
On-Peak Energy ⁽²⁾	7.74¢/kWh	7.49¢/kWh	3.93¢/kWh
Off-Peak Energy ⁽²⁾	7.20¢/kWh	7.00¢/kWh	3.46¢/kWh
High Voltage Facilities Charge Discount			
Facilities Charge Credit per month per kW of Contracted Standby Demand			
@ 34.5 or 69kV	N/A	\$1.38/kW	\$1.38/kW
@ 115kV or higher	N/A	\$1.64/kW	\$1.64/kW

(1) Applicable to customers not on TOD rates.

(2) Applicable to customers on TOD rates for its non-back-up energy charges.

*Indicates Change.

DATE OF ISSUE August 1, 2022

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ISSUED BY Mark C. Birk
NAME OF OFFICER

Chairman & President
TITLE

St. Louis, Missouri
ADDRESS

SCHEDULE MWH-D1

APPLYING TO

MISSOURI SERVICE AREA

GENERAL RULES AND REGULATIONS

I. GENERAL PROVISIONS (Cont'd.)

G. CUSTOMER OBLIGATIONS

In applying for electric service from Company, and receiving such service thereafter, customer shall:

1. Inform Company as to the size and characteristics of the load that is to be initially and thereafter served, the location of the premises, the date customer anticipates the need for said service and any special circumstances or conditions affecting the supply of electric service by Company.
2. When requested by Company, enter into a written contract which specifies the terms and conditions of the electric service being provided.
3. Furnish at no cost, upon Company's request, a right-of-way cleared of all trees or other obstructions for the extension of electrical supply facilities by Company. Said right-of-way easement, license or permit will grant Company continuing rights, thereafter, to trim trees and maintain the right-of-way in a condition which will not interfere with the delivery of electric service. In addition, any easements, licenses, or permits that may be deemed necessary by Company for such right-of-way shall be initially and thereafter furnished or paid for by customer.
4. Stake or establish the final grade of the route upon which the Company's electrical supply facilities will be located and stake or otherwise identify property boundaries, as required, prior to commencement of construction by Company.
- * 5. Install customer-owned equipment in a condition acceptable to and approved by the governmental inspection authority having jurisdiction in the territory in which the customer's premises is located or, where no authority exists, in accordance with Company's standards and the requirements of the current edition of the National Electrical Code, and following installation of Company's metering equipment, not break, remove or tamper with the security seal or other security device installed on customer-owned equipment by Company.
6. At all reasonable hours permit properly authorized agents of Company (and if requested by Company, in the presence of customer or his authorized representative), free and safe access to customer's premises for the purpose of inspecting customer's appliances and installations, clearing faults affecting the proper supply of electric service, examining, repairing or removing Company's meters or other property, reading of meters, making connections, disconnections, or reconnections of service, or for any other purpose deemed necessary by Company.

*Indicates Change.

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APPLYING TO MISSOURI SERVICE AREA

GENERAL RULES AND REGULATIONS

I. GENERAL PROVISIONS (Cont'd.)

G. CUSTOMER OBLIGATIONS (Cont'd.)

- * 7. Be responsible for payment of all electric service used on customer's premises and for all requirements of the provisions of the Service Classification under which the electric service is provided, until such time as customer notifies Company to terminate service.
- 8. Promptly notify and receive approval from Company of any significant changes in operation or equipment at customer's premises which might endanger or affect the proper functioning, or require modification, of Company's metering or other electrical supply facilities used in providing service to customer or cause a condition where such facilities would not comply with applicable laws, ordinances or codes.
- 9. Be responsible for any damage, alteration or interference with Company metering or other electrical supply facilities on customer's premises, by customer or any other party on such premises, whether authorized or unauthorized by customer.
- 10. Pay to Company the cost of any change or relocation of Company's service facilities or distribution system on or adjacent to customer's premises occasioned by significant changes at customer's premises in order to comply with proper operational requirements, clearance and other requirements of applicable laws, ordinances or codes.
- 11. Pay to Company the cost of any repairs, replacement, rerouting or relocation of any Company facilities necessitated by customer's negligence or failure to properly comply with any of the above obligations.

H. POWER FACTOR REQUIREMENTS

The Company's rates applicable to all customers are based upon a required average power factor of not less than 90% lagging during all periods of normal operation. Customer shall install corrective equipment necessary to meet this requirement on its side of the Company's meter. Such equipment shall be controlled and maintained by customer in order to avoid a leading power factor at any time and to avoid high voltage conditions during periods of light load. To enforce this power factor requirement, Company will install appropriate metering equipment for the monthly billing of a kilovar reactive charge as applicable for all Primary Service Rate customers. For all customers receiving service under other rate schedules, not voluntarily complying with this power factor requirement, Company may, where practical, install corrective equipment on its side of the meter and charge customer a lump sum amount for the current cost of such equipment and the cost of any subsequent additions to or replacement of such equipment whenever said future installations occur. Failure of customer to install such corrective equipment or to pay for that installed by Company currently, or in the future, shall be grounds for the disconnection of electric service.

*Indicates Reissue.

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ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
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APPLYING TO

MISSOURI SERVICE AREA

GENERAL RULES AND REGULATIONS

II. CHARACTERISTICS OF SERVICE SUPPLIED (Cont'd.)

I. SERVICE TO DOWNTOWN ST. LOUIS UNDERGROUND DISTRICT (Cont'd.)

Where in Company's judgement it is impractical or inadvisable to supply a customer's new or increased load from the gridded or spot networks, customer will be required to provide at no cost to the Company an indoor substation room at or one level below grade, constructed in accordance with Company's specifications, and transfer all electrical load to the new connection point. In such instances requiring an indoor substation, customer may, with the Company's approval, accept responsibility for all excess costs incurred by Company in continuing to provide all or a portion of customer's service from the gridded network solely for customer's benefit.

*** J. NON-STANDARD SERVICE**

Changes in business practices and regulatory and legal requirements will, from time to time, result in the Company serving or billing a limited number of customers in a manner that is currently considered a non-standard form of service. Such non-standard service includes, but is not limited to, voltages, frequencies, metering equipment, metering locations, electrical distribution system supply facilities and configurations, and master and cumulated meter billing situations that are prohibited by current Commission rules and Company tariffs for application to new customers. The continued provision of such non-standard service and billing is limited to the premises presently served by such facilities. These facilities may only be relocated, expanded or enhanced for Company's engineering reasons.

In order to minimize and phase out the number of non-standard service installations and billing applications on its system, Company will, unless otherwise provided for above, discontinue providing any such non-standard service to a premises when the premises is remodeled or rehabilitated in any such manner that requires new, modified, enhanced or relocated electrical distribution supply facilities from the Company.

*Indicates Change.

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Chairman & President
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St. Louis, Missouri
ADDRESS

GENERAL RULES AND REGULATIONS

III. DISTRIBUTION SYSTEM EXTENSIONS (Cont'd.)

G. OVERHEAD EXTENSIONS TO RESIDENTIAL SUBDIVISIONS (Cont'd.)

1. Single-Family Residences (Cont'd)

overhead distribution cost per lot with the annual net revenue per lot estimated to be received from the additional homes within the subdivision having been connected with electric service and permanently occupied for residential dwelling purposes, after receiving notification of such connections from Customer/developer. Any estimated annual net revenue per lot, from homes added during each review period, in excess of Company's standard per lot overhead costs shall be refunded, without interest, to Customer/developer up to the total amount of the advance deposit actually made by Customer/developer. Such refunds will be made at semi-annual intervals from the date the deposit was received by Company, with any amounts remaining unrefunded after five years being retained by Company and credited to the Company's appropriate plant account.

a. Large Lot Subdivisions

In addition to meeting the criteria described in this section Overhead Extensions To Residential Subdivisions above, in subdivisions where the average lot size exceeds 100,000 square feet, the Company will assess excess per lot footage charges for the amount that the average frontage footage exceeds 500 feet. In addition, for developments where the average lot size exceeds 100,000 square feet, the Company will also assess excess footage charges on individual lots for overhead services of more than a single span or underground services of more than 250 feet. Said charges will be payable in advance of construction and not be subject to refund.

2. Multiple Occupancy Dwellings

Multiple occupancy buildings consist of structures which stand alone, enclosed with exterior walls or are segregated from adjoining structures by fire walls, and are designed for permanent occupancy as two or more single-family residences. Extensions to subdivisions consisting of multiple occupancy dwellings shall be made in accordance with the provisions of this section G, applicable to single-family residences, utilizing an allowance of 50 feet per dwelling unit for distribution facilities beyond the subdivision boundaries, and applying a 0.60 occupancy factor to the annual net revenue estimated to be received from each multiple occupancy dwelling unit.

GENERAL RULES AND REGULATIONS

III. DISTRIBUTION SYSTEM EXTENSIONS (Cont'd.)

N. SPECIAL FACILITIES

1. General

Where Customer requests and Company agrees to install distribution facilities not normally contemplated for installation, or otherwise provided for, under Company's standard rate schedules, Company may at its option provide such facilities under the provisions of this section. Examples of facilities which fall into this category of "special" include, but are not limited to, duplicate or additional service facilities, excess transformer capacity or other distribution facilities, and facilities necessitated by special legal or engineering requirements.

* 2. Payments by Customer

Where Company agrees to supply distribution facilities under the provisions of Special Facilities in lieu of other alternatives available to Customer, Customer shall pay to Company a one-time contribution equal to the total additional costs incurred by Company in supplying such facilities. Customer shall also pay to Company an additional one-time contribution equal to ninety percent of such total additional costs for the present value of the Company's projected operations, maintenance and subsequent replacement cost of such facilities, which shall be continuously owned and maintained by Company. All charges payable to Company shall be non-refundable and due in advance of construction. Such payments by Customer shall be in addition to any payments required for electric facilities provided under the Company's standard line extension rules or other tariff charges.

3. Supply and Billing Standards

Company will designate the point of delivery of electric service relative to the installation of any additional facilities provided to Customer hereunder and the service supplied through such facilities installed on and after May 5, 1990 will not be cumulated or otherwise combined, for billing purposes, with any other service supplied to Customer. When total or partial replacement of any special facility installation is required, such revision will be made by Company at no cost to Customer. Any enlargement of such previously installed facilities requested by Customer shall be made in accordance with Company's standard line extension rules. Following any such replacement, or enlargement, all separately installed special facility connections shall be billed as provided herein without application of monthly special facility charges, and maintained by Company in the same manner as Company's standard line extension facilities serving other Customers.

*Indicates Change.

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ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

MO.P.S.C. SCHEDULE NO. 62nd RevisedSHEET NO. 134CANCELLING MO.P.S.C. SCHEDULE NO. 61st RevisedSHEET NO. 134

APPLYING TO

MISSOURI SERVICE AREA**GENERAL RULES AND REGULATIONS****V. BILLING PRACTICES (Cont'd.)****G. BILLING ADJUSTMENTS (Cont'd.)****2. Non-Residential (Cont'd.)**

- f. No corrections to metering data for meter error shall extend beyond the in-service date of the meter discovered to be in error, nor shall any correction be required to extend beyond the date upon which the current customer first occupied the premises at which the error is discovered.

H. CHANGE OF RATE

1. The rate selected by customer and specified by contract for service (if a written contract is required) shall be applied to customer's account for a period of not less than one year unless customer elects to transfer to a different rate during the first ninety (90) days of service. If so elected, the new rate shall be applied retroactively to the commencement date of customer's service.
2. Upon completion of the initial term of use of service under any rate, customer may select any other applicable rate and the rate so selected shall apply for a period of not less than that specified in the term of use of such selected rate.
3. Selection of rate shall be the obligation of the customer. A new rate when selected under and subject to the provisions set forth above, or subject to the provisions of the residential service tariffs, will be placed in effect in the billing period following receipt of customer's request therefore.
4. Where a customer's load is abnormally affected during temporary periods of construction, alteration, preliminary or experimental operations, fire, or acts of God, Company may, upon prior agreement with customer, adjust or modify its billing or other charges otherwise applicable during the current or succeeding months in consideration of the particular circumstances in each such case.
- * 5. Where abnormal and significant reductions in customer's operations occur due to events such as production curtailments, plant alteration, labor stoppages, fires or other acts of God, etc. which reduce customer's monthly billing demand below 100 kilowatts, customer may transfer to the Small General Service Rate for all billing periods subsequent to the initial billing period under such abnormal operation, following Company's receipt of written request for such change from customer. During such billing periods under the Small General Service Rate, any billing discounts under Riders B and C shall not apply. Under this scenario the customer is not eligible for the Optional rates.
6. Customers will not be permitted to evade the intent of the provisions of this paragraph H by temporarily terminating service.
7. As it relates to Residential Service only items 3 and 6 above will apply.

*Indicates Change.

DATE OF ISSUE August 1, 2022DATE EFFECTIVE September 3, 2022ISSUED BY Mark C. Birk
NAME OF OFFICERChairman & President
TITLESt. Louis, Missouri
ADDRESS**SCHEDULE MWH-D1**

APPLYING TO MISSOURI SERVICE AREA

GENERAL RULES AND REGULATIONS

V. BILLING PRACTICES (Cont'd.)

K. RENT INCLUSION (Cont'd.)

4. For that portion of electricity used in central space heating, central hot water heating, central ventilating, and central air conditioning systems, or
5. For buildings or mobile home parks where alternative renewable energy resources are utilized in connection with central space heating, central hot water heating, central ventilating, and central air conditioning systems.
6. For all portions of electricity in commercial units in buildings with central space heating, ventilating and air conditioning systems.

* Any person or entity affected by the provisions of this Section Rent Inclusion may file an application with the Commission seeking a variance from all or parts of such provisions for good cause shown, pursuant to the Commission's rules applicable thereto.

Nursing homes, as referenced in (1.) above, shall include all facilities licensed by the State of Missouri Department of Social Services Division of Aging. Central space heating, water heating and air conditioning systems referred to in (4.) above shall include those systems employing individual heating/cooling units interconnected with centralized heating/cooling sources by means of a central piping system containing water or other fluids suitable for such purposes.

L. RESALE OF SERVICE

The furnishing of metered electric service by a customer of Company to a third party for a specific identifiable charge based upon such metered consumption is prohibited except where such practice originated prior to July 24, 1958. Where such practice has continued since July 24, 1958, the charge for electric service from customer to a third party shall not exceed the charge which would result from the application of Company's appropriate rate, contained herein, for comparable electric service.

For such exceptions, the practice of resale shall be discontinued when such premises are remodeled, rebuilt or replaced.

The provision of electric vehicle charging service is not prohibited by this tariff.

*Indicates Change.

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ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
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GENERAL RULES AND REGULATIONS

V. BILLING PRACTICES (Cont'd.)

***M. PARTIAL PAYMENTS**

If a partial payment is made on a billing including only current charges, the Company shall first credit the payment to the balance outstanding for utility charges before crediting a deposit. If a partial payment is made on a billing which includes a previous balance, the Company will credit the payment first to previous utility charges, then to previous deposit requirements before applying any payment to current charges. No portion of any payment will be applied to special charges until all utility charges are paid in full and all required deposits have been made. (This section reflects a variance from Rule 20 CSR 4240-13.020(11) granted by the Commission in Case No. EO-98-263.)

***N. PAPERLESS BILLING**

Residential customers who enroll in paperless billing for the first time prior to July 1, 2023, are not currently enrolled in paperless billing, and have not received paperless billing in the past, will receive credit on their monthly bill for a term not to exceed a one-year period. Upon enrollment, the credit will be applied beginning with the Customer's next available billing month. The available monthly credit for qualifying enrollees is listed on Sheet No. 63, Miscellaneous Charges.

***O. PREFERRED DUE DATE SELECTION**

Customers receiving service under Service Classification 2M - Small General Service Rate or residential service under any of the Service Classification 1M options may select the date their bill will become due provided their service is equipped with an advanced meter reading device. If the customer's preferred date is not available, they will be given the option of selecting a different due date or retaining their existing due date.

Customer's selected due date will become effective no later than the second bill issued after customer's selection and cannot be implemented for bills already issued.

The first bill issued following implementation of a due date selected by customer may result in a bill period that is either longer or shorter than normal and may also be prorated.

Customer may not make a due date selection more frequently than once every 12 months except by Company approval. (This section reflects a variance from Rules 20 CSR 4240-13.015(1)(C) and 20 CSR 4240-13.020(6) granted by Commission in Case EE-2019-0385.)

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

M.O.P.S.C. SCHEDULE NO. 6

2nd Revised

SHEET NO. 158.4

CANCELLING M.O.P.S.C. SCHEDULE NO. 6

1st Revised

SHEET NO. 158.4

APPLYING TO MISSOURI SERVICE AREA

SOLAR BLOCK MONTHLY CHARGES

Subject to the Program Provisions and Special Terms set forth below:

Solar Block Charges for a 100 kWh Block

<u>Service Classification</u>	<u>Residential Service 1 (M)</u>	<u>Small General Service 2 (M)</u>
Solar Generation Charge	\$ 8.51	\$ 8.51
*Total Facilities Charge	<u>\$ 3.71</u>	<u>\$ 2.77</u>
*Total Solar Block Charge	\$ 12.22	\$ 11.28

*Indicates Change.

DATE OF ISSUE August 1, 2022 DATE EFFECTIVE September 3, 2022

ISSUED BY Mark C. Birk Chairman & President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

Mo Electric
12 Months Ending March 2022

	Total Revenue	Rev Neutral Adjustment	Rev Neutral Adj Revenue	RR Adjustment Amount	*Actual Base Revenues	**Total Revenues	Actual Percent
Residential	\$1,373,009,870	\$0.00	\$1,371,020,788	\$159,396,151	\$1,530,839,059	\$1,532,828,141	11.64%
Small General Service	\$305,241,746	\$0.00	\$304,929,163	\$35,451,348	\$340,468,201	\$340,780,784	11.64%
Large General Service	\$556,603,250	\$0.00	\$556,338,795	\$64,680,465	\$621,263,333	\$621,048,655	11.58%
Small Primary Service	\$234,883,908	\$0.00	\$234,867,469	\$27,305,910	\$262,140,008	\$261,957,847	11.53%
Large Primary Service	\$205,820,662	\$0.00	\$205,653,593	\$23,909,478	\$229,584,351	\$229,674,179	11.59%
Lighting Company Owned	\$39,010,796	-\$60,000	\$38,950,796	\$4,528,456	\$43,492,351	\$43,492,351	***11.49%
Lighting Customer Owned	\$2,933,113	\$60,000	\$2,993,113	\$347,982	\$3,341,139	\$3,341,139	***13.91%
MSD	\$81,564	\$0.00	\$81,564	\$9,483	\$91,084	\$91,084	11.67%
Total Revenue	\$2,717,584,907	\$0	\$2,714,835,281	\$315,629,273	\$3,031,219,526	\$3,033,214,179	11.61%

*Actual Revenues adjust for rounding in the final rates

**Total Revenues add back Low Income, EDI, and Community Solar Generation Charge Revenue

**Combined Lighting Actual Percent is 11.66%

12 Months Ending March 2022

Residential Class - Anytime

	Billing Units	Rounded Proposed Rates	Target Revenue
<u>Customer Charge</u>			
Summer Bills	9,954,036	13.00	\$129,402,468
Low Income Charge	9,954,036	0.14	\$1,393,565
<u>Energy Charge</u>			
Summer kWh	3,660,879,383	0.1409	\$515,817,905
Winter kWh			
First 750 kWh	3,785,376,775	0.0957	\$362,260,557
Over 750 kWh	3,004,106,797	0.0642	\$192,863,656
CS Facillites Rate	15578	0.0371	\$57,794
		Total	\$1,201,795,945

Residential Class - Evening Morning

	Billing Units	Rounded Proposed Rates	Target Revenue
<u>Customer Charge</u>			
Summer Bills	3,044,844	13.00	\$39,582,972
Low Income Charge	3,044,844	0.14	\$426,278
<u>Energy Charge</u>			
Summer kWh	1,080,351,268	0.1370	\$148,008,124
On-pk Adjustment	687,214,669	0.0050	\$3,436,073
Winter kWh			
First 750 kWh	968,749,892	0.0941	\$91,159,365
Over 750 kWh	718,980,506	0.0627	\$45,080,078
On-pk Adjustment	850,952,218	0.0025	\$2,127,381
		Total	\$329,820,270

12 Months Ending March 2022

Overnight Savers Service (AMI or AMR TOU)

	Billing Units	Rounded Proposed Rates	Target Revenue
Customer Charge Monthly	4188	13.00	\$54,444
Incremental AMR Charge	0	1.50	\$0
Low Income	4188	0.14	\$586
-			
<u>Summer</u>			
On peak energy charge	1033756	0.1651	\$170,673
Off peak energy charge	529237	0.0658	\$34,824
-			
<u>Non summer</u>			
On peak energy charge	1409379	0.0929	\$130,931
Off peak energy charge	764535	0.0567	\$43,349
-			
<u>Option B</u>			
First 750 kWh	121353	0.0957	\$11,613
Over 750 kWh	77520	0.0642	\$4,977
		Total	\$451,398

Smart Savers Service (AMI TOU)

	Billing Units	Rounded Proposed Rates	Target Revenue
Customer Charge Monthly	2448	11.00	\$26,928
Low Income	2448	0.14	\$343
-			
<u>Summer</u>			
On peak energy charge	126148	0.37	\$46,927
Intermediate energy charge	466119	0.11	\$52,066
Off peak energy charge	263132	0.07	\$18,577
-			
<u>Non summer</u>			
On peak energy charge	107252	0.20	\$21,354
Intermediate energy charge	546326	0.07	\$39,062
Off peak energy charge	321662	0.06	\$18,753
-			
<u>Option B</u>			
First 750 kWh	207014	0.10	\$19,811
Over 750 kWh	121244	0.06	\$7,784
		Total	\$251,605

12 Months Ending March 2022

Ultimate Savers Service (AMI TOU)

	Billing Units	Rounded Proposed Rates	Target Revenue
-			
<u>Customer Charge Monthly</u>	2124	9.00	\$19,116
Low Income	2124	0.14	\$297
<u>Demand Charge</u>			
Summer	3811	8.69	\$33,118
Non-Summer	7592	3.59	\$27,255
<u>Energy Charge</u>			
<u>Summer</u>			
On peak energy charge	109096	0.32	\$34,856
Off peak energy charge	779916	0.05	\$42,193
<u>Non summer</u>			
On peak energy charge	135752	0.17	\$23,580
Off peak energy charge	1088514	0.05	\$51,922
		Total	\$232,339

TOD Rate(no new installs; phasing out w/ AMI)

	Billing Units	Rounded Proposed Rates	Target Revenue
<u>Customer Charge</u>			
TOD	600	11.00	\$6,600
Low Income Charge	600	0.14	\$84
<u>Energy Charge</u>			
<u>Summer kWh</u>			
On-peak	58125	0.38	\$22,099
Off-peak	306369	0.09	\$27,359
<u>Winter kWh</u>			
First 750 kWh	366873	0.10	\$35,110
Over 750 kWh	271094	0.06	\$17,404
		Total	\$108,656

12 Months Ending March 2022

Small General Service Class

	Billing Units	Rounded Proposed Rates	Target Revenue
<u>Customer Charge</u>			
One-phase	1,159,732	\$12.65	\$14,670,609
Three-phase	470,409	\$24.21	\$11,388,603
Limited Unmetered Service	86,410	\$6.71	\$579,808
TOD Bills			
One-phase	17,259	\$24.25	\$418,528
Three-phase	1,903	\$47.36	\$90,115
Low Income Charge	1,735,712	\$0.18	\$312,428
Energy Charge			
Summer kWh	1,077,841,333	\$0.1267	\$136,562,497
On-peak	15,504,866	\$0.1883	\$2,919,566
Off-peak	27,044,761	\$0.0768	\$2,077,038
Winter kWh			
Base	1,454,197,437	\$0.0947	\$137,712,497
<u>Seasonal</u>	497,608,264	\$0.0545	\$27,119,650
On-peak	29,835,678	\$0.1240	\$3,699,624
Off-peak	54,771,506	\$0.0566	\$3,100,067
Cellnet Rate	2,321,846	\$0.0558	\$129,559
CS Facilities Rate	14	\$0.0277	\$40
		Total	\$340,780,630

12 Months Ending March 2022

Large General Service

	Billing Units	Rounded Proposed Rates	Target Revenue
<u>Customer Charge</u>			
Standard	127,788	114.69	\$14,656,006
TOD Bills	588	135.77	\$79,833
Low Income Charge	128,376	2.06	\$264,455
Demand Charge (kW)			
<u>Summer</u>			
Summer	7,902,810	6.55	\$51,763,405
Winter	14,606,317	2.43	\$35,493,350
Energy Charge			
Summer kWh			
<u>First 150HU</u>			
First 150HU	1,032,265,372	0.1176	\$121,394,408
Next 200HU	1,122,776,418	0.0885	\$99,365,713
Over 350HU	468,278,551	0.0595	\$27,862,574
On-peak	6,755,603	0.0114	\$77,014
Off-peak	12,340,030	(0.0065)	-\$80,210
Winter kWh			
Base Energy Charge			
First 150HU	1,654,427,602	0.0739	\$122,262,200
Next 200HU	1,753,843,635	0.0549	\$96,286,016
Over 350HU	731,482,950	0.0432	\$31,600,063
Seasonal Energy	474,683,007	0.0432	\$20,506,306
On-peak	12,159,941	0.0035	\$42,560
Off-peak	24,158,992	(0.0019)	-\$45,902
Total kWh	7,237,757,535		
		Total	\$621,527,788

12 Months Ending March 2022

Small Primary Service

	Billing Units	Rounded Proposed Rates	Target Revenue
<u>Customer Charge</u>			
Standard	7,768	392.92	\$3,052,203
TOD	212	414.00	\$87,768
Low Income Charge	7,980	2.06	\$16,439
<u>Demand Charge (kW)</u>			
Summer	2,821,207	5.65	\$15,939,818
Winter	5,099,765	2.05	\$10,454,519
<u>Energy Charge</u>			
Summer kWh			
First 150HU	407,964,922	0.1141	\$46,548,798
Next 200HU	490,765,290	0.0858	\$42,107,662
Over 350HU	369,958,303	0.0577	\$21,346,594
On-peak	1,014,139	0.0084	\$8,519
Off-peak	1,868,929	(0.0048)	-\$8,971
Winter kWh			
First 150HU	656,710,366	0.0718	\$47,151,804
Next 200HU	794,119,585	0.0534	\$42,405,986
Over 350HU	598,327,588	0.0417	\$24,950,260
Seasonal Energy	208,947,493	0.0417	\$8,713,110
On-peak	1,898,010	0.0031	\$5,884
Off-peak	3,574,293	(0.0018)	-\$6,434
Reactive Charge	1,280,800	0.42	\$537,936
Rider B			
115 kV	5,926	(1.64)	-\$9,718
69 kV	830,239	(1.38)	-\$1,145,730
		Total	\$262,156,446

12 Months Ending March 2022

Large Primary Service

	Billing Units	Rounded Proposed Rates	Target Revenue
<u>Customer Charge</u>			
Bills	696	392.92	\$273,472
TOD	60	414.00	\$24,840
Low Income Charge	756	220.99	\$167,068
<u>Demand Charge (kW)</u>			
Summer	2,312,245	23.44	\$54,199,013
Winter	4,270,692	10.42	\$44,500,605
<u>Energy Charge</u>			
Summer kWh			
Energy	1,276,221,362	0.0398	\$50,793,610
On Peak	42,073,854	0.0064	\$269,273
Off-Peak	85,081,406	(0.0035)	-\$297,785
Winter kWh			
Energy	0	-	\$0
On Peak	2,279,796,293	0.0364	\$82,984,585
Off-Peak	70,591,292	0.0029	\$204,715
	140,364,801	(0.0018)	-\$252,657
Total kWh	3,556,017,655		
Reactive Charge	293,781	0.42	\$123,388
<u>Rider B</u>			
115 kV	655,042	(1.64)	-\$1,074,270
69 kV	1,568,434	(1.38)	-\$2,164,439
		Total	\$229,751,420

12 Months Ending March 2022

Company Owned Lighting 5M

Description	Count	Proposed Rates	Target Revenue
Mounted LED - 100 W Equiv	81,507	11.91	\$11,648,980
Mounted LED - 250 W Equiv	12,435	19.23	\$2,869,501
Mounted LED - 400 W Equiv	2,050	35.30	\$868,380
Horizontal - enclosed on wood	4,057	14.75	\$718,089
Horizontal - enclosed on wood	4,164	20.38	\$1,018,348
Horizontal - enclosed on wood	1,077	36.83	\$475,991
Horizontal - enclosed on wood	3,190	14.16	\$542,045
Horizontal - enclosed on wood	1,594	19.39	\$370,892
Horizontal - enclosed on wood	42	32.72	\$16,491
LED directional flood	3,093	25.02	\$928,642
LED directional flood	3,645	40.11	\$1,754,411
LED directional flood	573	79.95	\$549,736
LED post-top - 17 foot post	14,556	26.43	\$4,616,581
Open bottom on existing wood	43	12.14	\$6,264
Open bottom on existing wood	10,124	12.95	\$1,573,270
Open bottom on existing wood	967	11.75	\$136,347
Open bottom on existing wood	5,203	12.36	\$771,709
Post top including 17 foot post	33,942	27.69	\$11,278,248
Post top including 17 foot post	77	26.07	\$24,089
Post top including 17 foot post	6,432	27.09	\$2,090,915
Directional	2,193	26.48	\$696,848
Directional	2,243	41.89	\$1,127,511
Directional	2,569	25.49	\$785,806
Directional	324	82.78	\$321,849
Directional	192	25.45	\$58,637
Directional	6	37.78	\$2,720
Prior to April 9, 1986			
11,000 Lmns, MV, Open Bottom	82	11.77	\$11,582
140,000 Lmns, H.P. Sodium, Dir	3	83.47	\$3,005
		Total	\$45,266,885

12 Months Ending March 2022

Customer Owned Lighting 6M

Description	Count	Rounded Proposed	Target Revenue
Metered service	18,977	8.83	\$167,567
Energy charge (per kWh)	40,612,468	0.0558	\$2,266,176
9500 HPS Enrg&Maint	8,264	4.65	\$461,131
25500 HPS Enrg&Maint	676	7.98	\$64,734
50000 HPS Enrg&Maint	63	11.44	\$8,649
5500 MH Enrg&Maint	169	6.79	\$13,770
12900 MH Enrg&Maint	53	8.04	\$5,113
3300 MV Enrg&Maint	3	4.65	\$167
6800 MV Enrg&Maint	1,385	5.98	\$99,388
11000 MV Enrg&Maint	26	8.09	\$2,524
20000 MV Enrg&Maint	38	10.63	\$4,847
54000 MV Enrg&Maint	4	22.56	\$1,083
9500 HPS Enrgy Only	116	2.16	\$3,007
25500 HPS Enrgy Only	26	5.55	\$1,732
50000 HPS Enrgy Only	1	8.72	\$105
3300 MV Enrgy Only	84	2.30	\$2,318
6800 MV Enrgy Only	121	3.74	\$5,430
11000 MV Energy Only	24	5.32	\$1,532
20000 MV Energy Only	90	8.21	\$8,867
54000 MV Energy Only	11	19.56	\$2,582
25W LED Energy Only	2	0.47	\$11
26W LED Energy Only	39	0.49	\$229
27W LED Energy Only	10	0.51	\$61
36W LED Energy Only	43	0.68	\$351
40W LED Energy Only	25	0.76	\$228
44W LED Energy Only	1	0.83	\$10
45W LED Energy Only	47	0.85	\$479
54W LED Energy Only	33	1.02	\$404
57W LED Energy Only	7	1.08	\$91
60W LED Energy Only	4	1.13	\$54
70W LED Energy Only	13	1.32	\$206
72W LED Energy Only	19	1.36	\$310
75W LED Energy Only	182	1.42	\$3,101
85W LED Energy Only	50	1.61	\$966
100W LED Energy Only	46	1.89	\$1,043
162W LED Energy Only	8	3.06	\$294
180W LED Energy Only	9	3.40	\$367
196W LED Energy Only	28	3.70	\$1,243
6M Ltd LED 100 W EQ	9,781	3.50	\$410,802
6M Ltd LED 250 W EQ	106	4.53	\$5,762
6M Ltd LED 400 W EQ	9	8.01	\$865
		Total	\$3,547,601

12 Months Ending March 2022

MSD Horsepower Service

Connected Horsepower	Proposed Rate	Per Month	Annual
36,900.0	0.2057	\$7,590	\$91,084

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Tariffs to Adjust)
Its Revenues for Electric Service.)

Case No. ER-2022-0337

AFFIDAVIT OF MICHAEL W. HARDING

STATE OF MISSOURI)
)**ss**
CITY OF ST. LOUIS)

MICHAEL W. HARDING, being first duly sworn states:

My name is Michael W. Harding, and on my oath declare that I am of sound mind and lawful age; that I have prepared the foregoing *Direct Testimony*; and further, under the penalty of perjury, that the same is true and correct to the best of my knowledge and belief.

/s/ Michael W. Harding
Michael W. Harding

Sworn to me this 1st day of August, 2022.