FUEL & PURCHASE POWER ADJUSTMENT CLAUSE
RIDER FAC
For service on and after ~~September 16, 2020~~

The two six-month accumulation periods, the two six-month recovery periods and filing dates are set forth in the following table:

Accumulation Periods	**Filing Dates**	**Recovery Periods**
September–February	By April 1	June–November
March–August	By October 1	December–May

The Company will make a Fuel Adjustment Rate ("FAR") filing by each Filing Date. The new FAR rates for which a filing is made will be applicable starting with the Recovery Period that begins following the Filing Date. All FAR filingsshall be accompanied by detailed workpapers with subaccount detail supporting the filing in an electronic format withall formulas intact.

DEFINITIONS

ACCUMULATION

PERIOD:
The six calendar months during which the actual costs and revenues subject to this rider will be accumulated for the purpose of determining the FAR.

RECOVERY PERIOD:
The billing months during which a FAR is applied to retail customer usage on a per kilowatt-hour ("kWh") basis.

BASE ENERGY COST:
Base energy cost is ordered by the Commission in the last rate case consistent with the costs and revenues included in the calculation of the Fuel and Purchase Power Adjustment ("FPA").

BASE FACTOR ("BF"):
The base factor is the base energy cost divided by net generation kWh determined by the Commission in the lastgeneral rate case. BF = $0.0~~2338~~0870 per kWh for each accumulation period.

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APPLICATION

FUEL & PURCHASE POWER ADJUSTMENT

$$FPA = \{[(FC + PP + E – OSSR - REC - B) * J] * 0.95\} + T + I + P$$

Where:

FC = Fuel c~~C~~osts, excluding decommissioning and retirement costs, i~~I~~ncurred to ~~S~~support ~~S~~sales and revenues associated with the Company's in-service generating plants, consisting of the following:

The following costs reflected in Federal Energy Regulatory Commission ("FERC") Accounts 501 and 506: coal commodity and railroad transportation, switching and demurrage charges, applicable taxes, natural gas costs, alternative fuels (i.e. tires, and bio-fuel), fuel additives, Btu adjustments assessed by coal suppliers, quality adjustments assessed by coal suppliers, fuel hedging costs, fuel adjustments included in commodity and transportation costs, broker commissions and fees associated with price hedges, oil costs, combustion product disposal revenues and expenses, consumable costs related to Air Quality Control Systems ("AQCS") operation, such as ammonia, lime, limestone, and powdered activated carbon, and settlement proceeds, insurance recoveries, subrogation recoveries for increased fuel expenses in Account 501.

The following costs reflected in FERC Accounts 547 and 548: natural gas generation costs related to commodity, oil, transportation, fuel losses, hedging costs for natural gas and oil, fuel additives, and settlement proceeds, insurance recoveries, subrogation recoveries for increased fuel expenses, broker commissions and fees.

PP = Purchased Power Costs:

1. Costs and revenues for purchased power reflected in FERC Account 555, excluding 1) all charges under Southwest Power Pool ("SPP") Schedules 1a and 12, and 2) amounts associated with energy purchased from the SPP market to serve research and development projects of the Company. Such costs include:

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A. SPP costs or revenues for SPP's energy and operating market settlement charge types and market settlement clearing costs or revenues including:

i. Energy;
ii. Ancillary Services;
   a. Regulating Reserve Service
   b. Energy Imbalance Service
   c. Spinning Reserve Service
   d. Supplemental Reserve Service
iii. Revenue Sufficiency;
iv. Revenue Neutrality;
v. Demand Reduction;
vi. Grandfathered Agreements;
vii. Virtual Energy including Transaction Fees;
viii. Pseudo-tie;
ix. Combined Interest Resource Adjustments;
~~viii.~~x. Ramp Products; and
~~ix.~~xi. Miscellaneous;

B. Non-SPP costs or revenue as follows:

i. If received from a centrally administered market (e.g. PJM / MISO), costs or revenues of an equivalent nature to those identified for the SPP costs or revenues specified in sub part 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. Settlements, insurance recoveries, and subrogation recoveries for purchased power expenses.

2. Costs of purchased power will be reduced by expected replacement power insurance recoveries qualifying as assets under Generally Accepted Accounting Principles.

3. Transmission service costs reflected in FERC Account 565:

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A. ~~Thirty-four~~Nineteen point three nine percent (~~34~~19.39%) of SPP costs associated with Network Transmission Service:
   i. SPP Schedule 2 – Reactive Supply and Voltage Control from Generation or Other Sources Service;
   ii. SPP Schedule 3 – Regulation and Frequency Response Service; and
   iii. SPP Schedule 11 – Base Plan Zonal Charge and Region-wide Charge.

B. Fifty percent (50%) of Mid-Continent Independent System Operator ("MISO") costs associated with:

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

~~4. Costs and revenues not specifically detailed in Factors FC, PP, E, or OSSR shall not be included in the Company's FAR filings; provided however, in the case of Factors PP or OSSR the market settlement charge types under which SPP or another market participant bills / credits a cost or revenue need not be detailed in Factors PP or OSSR for the costs or revenues to be considered specifically detailed in Factors PP or OSSR; and provided further, should the SPP or another market participant implement a new charge type, exclusive of changes in transmission revenue. The list of sub-accounts included will be provided in the FAC Monthly Reports.~~

~~A. The Company may include the new charge type cost or revenue in its FAR filings if the Company believes the new charge type cost or revenue possesses the characteristics of, and is of the nature of, the costs or revenues listed in factors PP or OSSR, as the case may be, subject to the requirement that the Company make a filing with the Commission as outlined in B below and also subject to another party's right to challenge the inclusion as outlined in E. below;~~

~~B. The Company will make a filing with the Commission giving the Commission notice of the new charge type no later than 60 days prior to the Company including the new charge type cost or revenue in a FAR filing. Such filing shall identify the proposed accounts affected by such new charge type cost or revenue, provide a description of the new charge type demonstrating that it possesses the characteristics of, and is of the nature of, the costs or revenues listed in factors PP or OSSR as the case may be, and identify the preexisting market settlement charge type(s) which the new charge type replaces or supplements;~~

~~C. The Company will also provide notice in its monthly reports required by the Commission's fuel adjustment clause rules that identifies the new charge type costs or revenues by amount, description and location within the monthly reports;~~

~~D. The Company shall account for the new charge type costs or revenues in a manner which allows for the transparent determination of current period and cumulative costs or revenues;~~

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~~E. If the Company makes the filing provided for by B above and a party challenges the inclusion, such challenge will not delay approval of the FAR filing. To challenge the inclusion of a new charge type, a party shall make a filing with the Commission based upon the contention that the new charge type costs or revenues at issue should not have been included, because they do not possess the characteristics of the costs or revenues listed in Factors PP or OSSR, as the case may be. A party wishing to challenge the inclusion of a charge type shall include in its filing the reasons why it believes the Company did not show that the new charge type possesses the characteristic of the costs or revenues listed in Factors PP or OSSR, as the case may be, and its filing shall be made within 30 days of the Company's filing under B above. In the event of a timely challenge, the Company shall bear the burden of proof to support its decision to include a new charge type in a FAR filing. Should such challenge be upheld by the Commission, any such costs will be refunded (or revenues retained) through a future FAR filing in a manner consistent with that utilized for Factor P; and~~

~~F. A party other than the Company may seek the inclusion of a new charge type in a FAR filing by making a filing with the Commission no less than 60 days before the Company's next FAR filing. Such a filing shall give the Commission notice that such party believes the new charge type should be included because it possesses the characteristics of, and is of the nature of, the costs or revenues listed in factors PP or OSSR, as the case may be. The party's filing shall identify the proposed accounts affected by such new charge type cost or revenue, provide a description of the new charge type demonstrating that it possesses the characteristics of, and is of the nature of, the costs or revenues listed in factors PP or OSSR as the case may be, and identify the preexisting market settlement charge type(s) which the new charge type replaces or supplements. If a party makes the filing provided for by this paragraph F and a party (including the Company) challenges the inclusion, such challenge will not delay inclusion of the new charge type in the FAR filing or delay approval of the FAR filing. To challenge the inclusion of a new charge type, the challenging party shall make a filing with the Commission based upon that party's contention that the new charge type costs or revenues at issue should not have been included, because they do not possess the characteristics of the costs or revenues listed in Factors PP or OSSR, as the case may be. The challenging party shall make its filing challenging the inclusion and stating the reasons why it believes the new charge type does not possess the characteristic of the costs or revenues listed in Factors PP or OSSR, as the case may be, within 30 days of the filing that seeks inclusion of the new charge type. In the event of a timely challenge, the party seeking the inclusion of the new charge type shall bear the burden of proof to support its contention that the new charge type should be included in the Company's FAR filings. Should such challenge be upheld by the Commission, any such costs will be refunded (or revenues retained) through a future FAR filing in a manner consistent with that utilized for Factor P.~~

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E = Net Emission Costs: The following costs and revenues reflected in FERC Accounts 509 and 411 (or any other account FERC may designate for emissions expense in the future): emission allowance costs offset by revenues from the sale of emission allowances including any associated hedging.

OSSR = Revenue from Off-System Sales (Excluding revenue from full and partial requirements sales to municipalities with the exception of the revenue received net of cost from the sale of energy to the Southwest Missouri Power Electric Pool for service from the effective date of new rates in ER-2021-0312~~June 1, 2020~~ through~~–~~ May 31, 2025):

The following revenues or costs reflected in FERC Account 447: all revenues from off-system sales and SPP energy and operating market including (see Note A. below):

i. Energy;
ii. Capacity Charges associated with Contracts shorter than 1 year;
iii. Ancillary Services including;
 a. Regulating Reserve Service
 b. Energy Imbalance Service
 c. Spinning Reserve Service
 d. Supplemental Reserve Service
iv. Revenue Sufficiency;
v. Losses;
vi. Revenue Neutrality;
vii. Demand Reduction;
viii. Grandfathered Agreements;
ix. Pseudo-tie;
x. Miscellaneous; and
xi. Hedging.

REC = Renewable Energy Credit Revenue reflected in FERC Account 456 from the sale of Renewable Energy Credits that are not needed to meet the Renewable Energy Standard.

Costs and revenues not specifically detailed in Factors FC, PP, E, or OSSR shall not be included in the Company's FAR filings; provided however, in the case of Factors PP or OSSR the market settlement charge types under which SPP or another market participant bills / credits a cost or revenue need not be detailed in Factors PP or OSSR for the costs or revenues to be considered specifically detailed in Factors PP or OSSR; and provided further, should the SPP or another market participant implement a new charge type, exclusive of changes in transmission revenue.

HEDGING COSTS:

Hedging costs are defined as realized losses and costs (including broker commission fees and margins) minus realized gains associated with mitigating volatility in the Company's cost of fuel, fuel additives, fuel transportation, emission allowances and purchased power costs, including but not limited to, the Company's use of derivatives whether over-the-counter or exchanged traded including, without limitation, futures or forward contracts, puts, calls, caps, floors, collars and swaps.

Should FERC require any item covered by factors FC, PP, E, REC 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, REC 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.

~~With respect to the Company's North Fork Ridge, Neosho Ridge, and Kings Point wind projects, costs associated with the wind projects and revenue generated from the wind projects shall not be passed through to customers via the Fuel Adjustment Clause before the wind projects' revenue requirements are included in rates.~~

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B = Net base energy cost is calculated as follows:

B = (S_{AP} * $0.0~~2338~~0870)

S_{AP} = Actual net system input (“NSI), excluding the energy used by Company research and development projects, at the generation level for the accumulation period.

J = Missouri retail kWh sales / Total system kWh sales

Where Total system kWh sales includes sales to municipalities that are associated with Empire and excludes off-system sales.

T = True-up of over/under recovery of FAC balance from prior recovery period as included in the deferred energy cost balancing account. Adjustments by Commission order pursuant to any prudence review shall also be placed in the FPA for collection unless a separate refund is ordered by the Commission.

I = Interest applicable to (i) the difference between Total energy cost (FC + PP + E – OSSR – REC) and Net base energy costs (“B”) multiplied by the Missouri energy ratio (“J”) for all kWh of energy supplied during an AP until those costs have been billed; (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 (“T”) provided for herein. Interest shall be calculated monthly at a rate equal to the weighted average interest 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.

FUEL ADJUSTMENT RATE

The FAR is the result of dividing the FPA by estimated recovery period S_{RP} kWh, rounded to the nearest $0.00000. The FAR shall be adjusted to reflect the differences in line losses that occur at primary and secondary voltage by multiplying the average cost at the generator by the voltage adjustment factors (“VAF”) of 1.0429 and 1.0625, respectively. Any FAR authorized by the Commission shall be billed based upon customers’ energy usage on and after the authorized effective date of the FAR. The formula for the FPA is displayed below

$$FAR = \frac{FPA}{S_{RP}}$$

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Where:

S_{RP} = Forecasted Missouri NSI kWh for the recovery period excluding energy projected to be used by Company research and development projects.

= Forecasted total system NSI * $\frac{\text{Forecasted Missouri retail kWh sales}}{\text{Forecasted total system kWh sales}}$

Where Forecasted total system NSI ~~kWh sales~~ includes kWh sales to municipalities that are associated with Empire and excludes off-system sales and energy projected to be used by Company research and development projects.

GENERAL RATE CASE/PRUDENCE REVIEW

The following shall apply to this FAC, in accordance with Section 386.266.5, 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.

TRUE-UP OF FPA

In conjunction with an adjustment to its FAR, the Company will make a true-up filing with an adjustment to its FAC on the first Filing Date that occurs after completion of each Recovery Period. The true-up adjustment shall be the difference between the FPA revenues billed and the FPA revenues authorized for collection during the true-up recovery period, i.e. the true-up adjustment. Any true-up adjustments or refunds shall be reflected in item T above and shall include interest calculated as provided for in item I above.

THE EMPIRE DISTRICT ELECTRIC COMPANY d.b.a. LIBERTY

P.S.C. Mo. No.	6	Sec.	4	2nd	Revised Sheet No.	17g
Canceling P.S.C. Mo. No.	6	Sec.	4	1st	Original Sheet No.	17g

For ALL TERRITORY

FUEL & PURCHASE POWER ADJUSTMENT CLAUSE
RIDER FAC
For service on and after ~~June 1, 2021~~

	Accumulation Period Ending		~~February 28~~August 31, 2022
1	Total Energy Cost (TEC) = (FC + PP + E – OSSR - REC)		~~255,868,458~~0
2	Net Base Energy Cost (B)	-	~~60,428,674~~0
	2.1 Base Factor (BF)		0.0~~2344~~0870
	2.2 Accumulation Period NSI (S_{AP})		~~2,578,334,000~~0
3	(TEC-B)		~~195,439,784~~0
~~4~~	~~Missouri Energy Ratio (J)~~	~~*~~	~~90.18[1]~~
4~~5~~	Sum of Monthly (TEC - B) * J		~~176,248,936[2]~~0
5~~6~~	Fuel Cost Recovery	*	95.00%
6~~7~~	Sum of Monthly (TEC - B) * J * 0.95		~~167,436,489~~0
7~~8~~	Deferred Amount		~~(168,720,211)~~0
8~~9~~	True-Up Amount (T)	+	~~1,293,237~~0
9~~10~~	Prudence Adjustment Amount (P)	+	0
10~~11~~	Interest (I)	+	~~(9,515)~~0
11~~12~~	Fuel and Purchased Power Adjustment (FPA)	=	0
12~~13~~	Forecasted Missouri NSI (S_{RP})	÷	~~2,273,827,774~~0
1~~4~~3	Current Period Fuel Adjustment Rate (FAR)	=	0.00000
1~~5~~4	Current Period FAR_{PRIM} = FAR x VAF_{PRIM}		0.00000
15~~16~~	Current Period FAR_{SEC} = FAR x VAF_{SEC}		0.00000
1~~7~~6	VAF_{PRIM} = 1.0464		1.0464
17~~18~~	VAF_{SEC} = 1.0657		1.0657

~~[1]The Missouri Energy Ratio (J), on line 4, is calculated by dividing the Missouri retail kWh sales by the Total system kWh sales for the current accumulation period as specified by the tariff.~~

~~[2]The (TEC-B)*J, on line 5, is calculated by taking the sum of (TEC-B)*J for each month of the accumulation period. Therefore, because each month is weighted differently, the amount on line 5 will not necessarily equal the product of lines three and four.~~

THE EMPIRE DISTRICT ELECTRIC COMPANY d.b.a. LIBERTY

DATE OF ISSUE ~~April 1, 2021~~ DATE EFFECTIVE ~~June 1, 2021~~

ISSUED BY ~~Sheri Richard, Director Rates and Regulatory Affairs, Joplin, MO~~