THE EMPIRE DISTRICT ELECTRIC COMPANY

2021 ANNUAL RENEWABLE ENERGY STANDARD COMPLIANCE PLAN

Prepared in Compliance with 20 CSR 4240-20.100

April 2021

Indicates Highly Confidential
Indicates Confidential

Liberty

PUBLIC VERSION

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2021 ANNUAL RENEWABLE ENERGY STANDARD COMPLIANCE PLAN

INTRODUCTION

Pursuant to the Missouri Public Service Commission's (Commission) renewable energy standards rule, 20 CSR 4240-20.100(8), The Empire District Electric Company (EDE or Empire), a Kansas corporation, is filing the Annual Renewable Energy Standard (RES) Compliance Plan. The rule became effective in September 2010, and pursuant to the rule EDE must file the RES Compliance Plan on or before April 15, 2021 for the current year and subsequent two calendar years.

EDE began to develop its wind renewable energy portfolio on December 10, 2004, when it entered into a 20-year contract with Elk River Windfarm, LLC (owned by Avangrid Renewables) to purchase all of the energy generated at the 150-megawatt (MW) Elk River Windfarm located in Butler County, Kansas.

On June 19, 2007, EDE enhanced its renewable energy portfolio when it entered into a 20-year purchased power agreement with Cloud County Wind Farm, LLC. EDP Renewables North America LLC is an indirect parent company of Cloud County Wind Farm, LLC. Pursuant to the terms of the agreement, EDE purchases all of the output from the 105 MW Phase 1 Meridian Way Wind Farm located in Cloud County, Kansas.

In addition, the Ozark Beach Hydroelectric Project, owned by EDE has produced renewable hydropower for many years. Through purchased power agreements or owned generation, EDE's wind and hydro renewable energy resources have provided adequate renewable energy to comply with the RES in the past and for the future.

The solar component of the RES requires compliance which can only be met with Solar Renewable Energy Credits (SRECs) or energy from solar generation resources. EDE will meet the solar RES compliance obligation through customer-generated SRECs. Effective May 16, 2015, Empire began offering rebates for Missouri customers for qualifying solar installations in accordance with the Missouri RES and Empire's Solar Rebate Rider approved by the Commission. This requirement will continue to be in place for future compliance obligations.

The following sections provide information required to indicate compliance with the rule:

SECTION (8) (B) 1 A: PLANNED RES COMPLIANCE

Non-solar Compliance

20 CSR 4240-20 provides the procedure by which utilities must meet statutory obligations for renewable energy. Missouri law required that by 2011, electric companies must either generate, purchase energy, or purchase renewable energy credits (RECs) equal to at least 2 percent of the electricity they sell to retail customers from renewable sources. That percentage increased to 5 percent in 2014, 10 percent by 2018, and 15 percent by 2021. The regulation also requires the utilization of a commission designated third-party registry for REC accounting, and the North American Renewable Registry (NARR) is utilized for tracking EDE retirements for Missouri compliance.

This year and in the subsequent two years, EDE plans to comply with the non-solar portion of the RES through contracts with Elk River Windfarm, LLC and/or generation from its Ozark Beach Hydroelectric facility. In fact, EDE currently could meet the 2022 requirement through its renewable energy purchase power agreements and owned generation if it chose not to sell any RECs generated from these facilities. EDE is currently constructing and will be operating three utility scale wind generation facilities in 2021. RECs generated from these facilities could be used to comply with the current and future standards.

EDE owns the Ozark Beach Hydroelectric Project (Ozark Beach) which generates approximately 54,000 megawatt-hours (MWh) each year. Since the facility is located in Missouri, EDE is allowed to claim the amount of MWhs generated plus an additional twenty-five hundredths (0.25) credits, as authorized by subsection (3)(G) of this rule. Consequently, Ozark Beach generation counts as one and twenty-five hundredths (1.25) RECs for purposes of compliance with this rule as allowed by 20 CSR 4240-20.100 (3) (G).

The table below represents EDE's expected Missouri retail sales and the non-solar percentage requirements of Missouri retail electric sales that must be achieved by EDE either through the purchase of RECs or the production of energy, and the total expected potential of qualifying RECs that could be used for compliance. EDE expects to sell all or a portion of its remaining RECs after all current or future state and/or federal mandates have been met.

Table 1: Projected Non-Solar Compliance

Time Period	RES Requirement Percent	Mo Retail Sales (MWh)	Non Solar Resources				Total Non-Solar Requirement	Total RES Requirement[3]
			Elk River[1]	Meridian Way[1]	Ozark Beach[1]	Total Potential[2]		
2021	15%	4,257,478	378,000	292,000	67,500	737,500	625,849	638,622
2022	15%	4,283,493	378,000	292,000	67,500	737,500	629,673	642,524
2023	15%	4,295,340	378,000	292,000	67,500	737,500	631,415	644,301

[1]Expected average operation; Ozark Beach number includes 1.25 credit for Missouri source. Beginning in 2021, additional resources should be available as North Fork Ridge, Kings Point, and Neosho Ridge Wind become operational. Missouri projects will provide 1.25 credit per REC.

[2]Total expected eligible RECs not including potential 3rd party sales or other RES requirements.

[3] Both Non solar and Solar will make up the total RES requirement

Solar Compliance

EDE filed a tariff to establish solar rebate payment procedures and to revise its net metering tariffs to accommodate the payment of solar rebates which became effective on May 16, 2015. Under the terms of the tariff, EDE buys SRECs from its electric customers who installed or are installing net metered solar facilities at their homes and/or businesses according to the solar rebate tariff and net metering requirements.

For 2021 compliance, EDE expects to obtain SRECs transferred from qualified customer-generator's operational solar electric systems as a condition of receiving the solar rebate. SRECs produced from these solar electric systems will be transferred to EDE for a period of 10 years. Generation from these customer-owned facilities would be eligible for application of the 1.25 factor as these facilities are located in Missouri.

In the future, (2021-2023) Empire will use customer-generated SRECs or banked SRECs. EDE will also evaluate and monitor the feasibility and economics of constructing and operating utility scale solar generation.

Table 2: Projected Solar Compliance

Time Period	RES Requirement Solar %	MO Retail Sales (MWh)	Solar RES Requirement	Customer Generated Solar[1]
2021	0.3%	4,257,478	12,772	40,638
2022	0.3%	4,283,493	12,850	40,638
2023	0.3%	4,295,340	12,886	40,638

[1]Future Projections based on 2020 Total MO PV online.

SECTION (8) (B) 1 B: LIST OF EXECUTED CONTRACTS

EDE's executed renewable energy contracts include a 20-year contract with Elk River Windfarm, LLC to purchase all of the energy generated at the 150 MW Elk River Windfarm located in Butler County, Kansas. In addition, EDE retains a 20-year purchased power agreement with Cloud County Wind Farm. Pursuant to the terms of that agreement, EDE purchases all of the output from the 105 MW Phase 1 Meridian Way Wind Farm located in Cloud County, Kansas. Empire anticipates generation of approximately 378,000 MWhs for Elk River and approximately 292,000 MWhs for Meridian Way.

The effective date of the Elk River agreement was December 10, 2004 and the effective date of the Meridian Way agreement was on June 19, 2007. Unless otherwise terminated in accordance with contract stipulations each of those agreements will remain in full force for a term ending at midnight local time on the 20^{th} anniversary of each facility's respective completion date. ATTACHMENT 1 indicates the wind generation allocation for Missouri retail customers. Additional information on the wind energy purchases and sales can be found in ATTACHMENT 2.

In 2020, Empire executed payment for 351 additional solar customer generated rebates. Empire expects to annually execute payment for customer generated rebates during the 2021-2023 timeframe.

SECTION (8) (B) 1 C: PROJECTED TOTAL RETAIL SALES

The following table represents EDE's projected Missouri retail sales for each year of the Annual Compliance Plan period. These MWhs are the sales numbers that each non-solar and solar requirement is multiplied by in order to calculate EDE's RES requirements.

Table 3: EDE Projected Retail Sales and RES Requirements*

Time Period	Projected Retail Electric Sales (MWh)	Non-solar Requirement (MWh)	Solar Requirement (MWh)
2021	4,257,478	625,849	12,772
2022	4,283,493	629,673	12,850
2023	4,295,340	631,415	12,886

**Source: 2021-2026 Revenue Budget*

SECTION (8) (B) 1 D: COMPARISON TO PREFERRED RESOURCE PLAN

EDE will fully meet the RES compliance requirements for 2021, 2022, and 2023 with its current purchased power contracts, hydroelectric facility, customer-generated solar energy, and owned wind and solar generation. Therefore, there is no difference between the RES Compliance Plan and the 2019 filing of the Integrated Resource Plan (IRP). EDE continues to include a section in the 2021 IRP which discusses the impact potential or proposed changes to Renewable Energy Standards would have on EDE. Regardless of the outcome of proposed changes, in the future, EDE will continue to retain a sufficient amount of RECs and SRECs to meet any current or future RES.

SECTION (8) (B) 1 E: RES COMPLIANCE PLAN COST

EDE currently meets the Missouri non-solar RES compliance requirements on a total percentage basis with hydro and wind resources for the plan period. Analysis of the IRP indicates the use of energy provided by EDE-owned hydro generation, and long-term wind purchased power agreements is currently the least cost, most prudent methodology to achieve compliance with the RES. Future additions of EDE-owned renewable energy resources will reduce the cost of compliance with the RES.

To comply with the solar-specific compliance, the purchase of SRECs through an industry broker is currently the least expensive alternative. However, EDE expects to utilize SRECs transferred from qualified customer-generator's systems for the compliance obligation.

SECTION (8) (B) 1 F: RES RETAIL RATE IMPACT

The retail rate impact was calculated by comparing non-renewable generation portfolio to a RES-compliant portfolio with sufficient renewable resources to achieve the renewable standards. EDE has performed this rate impact calculation in accordance with Section (5) Retail

Rate Impact. The calculations were completed consistent with EDE's understanding of Staff's interpretation of the RES rules. For each year of the 2021-2023 RES Compliance Plan period, the annual retail rate impact is limited to a maximum of 1% of the 10-year average non-RES compliant revenue requirement.

Costs associated with EDE's current or anticipated RES compliance are associated with (1) the registration of assets and RECs in the NARR, (2) costs associated with retirement of RECs, (3) the value of RECs from purchased power agreements that are used for compliance, (4) costs associated with solar rebates, and (5) costs associated with the retail rate impact modeling and calculations. Costs incurred for 2020 compliance totaled $27,432 for the registration, retirement and associated costs of REC and SREC management and reporting. The purchase price of the amount of wind energy necessary for 2020 compliance totaled **$ **. This amount reflects an asset that is currently included in Empire's portfolio through a purchased power agreement and does not reflect an additional cost as it was contracted for prior to the commencement of the RES. This resource will be used in the future for compliance, as needed. Empire's base rates reflect a representative level of renewable registry costs. The addition of wind resources will not be required for the period of 2021 to 2023 as current wind resources are adequate to meet compliance obligations. However, as we move towards a lower carbon future, additional renewable energy resources will be added to the Empire portfolio,

Solar costs incurred for 2020 solar rebates paid totaled $1,145,488. EDE successfully received treatment to recover the solar costs in Missouri base rates.

The total compliance cost for 2020 was $1,172,920. The purchase price of the existing wind energy which was not added for compliance totaled **$ **. EDE will use the generation from our Ozark Beach hydro facility, energy from the windfarm purchased power agreements, owned renewable energy resources, and solar energy from customer-generated facilities but we do not expect to exceed the rate cap. ATTACHMENT 3 further explains the retail rate impact calculations. The calculations in ATTACHMENT 3 are based on total company not Missouri jurisdictional.

It is important to note the rate cap calculation is *purely* a mathematical exercise and is not associated with current rates, current generation assets or even current finalized environmental rules.

SECTION (8) (B) 1 G: COMPLIANCE WITH AIR, WATER, OR LAND USE REQUIREMENTS

Pursuant to Section 393.1030.4 RSMo, any renewable energy facility located in the state of Missouri shall not cause undue adverse air, water or land use impacts.

All generating facilities utilized by EDE to meet the requirements of the Missouri RES have, to EDE's knowledge, received all necessary environmental and operational permits and are in compliance with any necessary federal, state and/or local requirements related to air, water and land use. All generating facilities have received Certification as a Renewable Energy Generation Facility by the Missouri Department of Natural Resources, Division of Energy.

ATTACHMENT1 :

WIND GENERATION ALLOCATION FOR MO RETAIL CUSTOMERS 2020

Facility	**Generation (MWh)**	**Percentage***	**Energy Supplied to Missouri Retail Customers (MWh)**
Elk River Windfarm	349,453	88.5%	309,266
Cloud County Meridian Way Windfarm	251,115	88.5%	222,237

* Allocation based on 12-month average CP Demand Factor

The Empire District Electric Company
Liberty Utilities
2021-2023 RES Compliance Plan
HIGHLY CONFIDENTIAL 20 CSR 4240-2.135(4)
ATTACHMENT 2 REC REPORT
Elk River 2020
HIGHLY CONFIDENTIAL Contract pricing and amounts.
Empire District Electric Company

	January	February	March	April	May	June	July	August	September	October	November	December	Total
	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020
Expected R	47725	45442	53109	54018	41339	36294	33341	34123	37783	44718	51672	44313	523877
**Actual R	**-----**	**-----**	**-----**	**-----**	**-----**	**-----**	**-----**	**-----**	**-----**	**-----**	**-----**	**-----**	**-------**
REC's Sold **													0
MO Compli	34547	32117	26418	20988	25204	35316	25362	26256	24373				250581
KS Voluntary Goal 2020										25547			
Counterparty													
Quantity	0	0		0		0	0	0	0	0	0		0
Price ($/REC)		0		0		0	0	0	0	0	0		
Gross Reve	0	0	0	0	0	0	0	0	0	0	0	0	0
Commissio	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Revenu	0	0	0	0	0	0	0	0	0	0	0	0	0
										0	0		
Quantity	0	0			0		0	0	0	0	0	0	0
Price ($/RE	0	0			0		0	0	0	0	0	0	
Gross Reve	0	0		0	0	0	0	0	0	0	0	0	0
Commissio	0	0		0	0		0	0	0	0	0	0	0
Net Revenu	0	0		0	0	0	0	0	0	0	0	0	0
										0	0		
Quantity	0	0	0	0	0	0	0	0		0	0	0	0
Price ($/RE	0	0		0	0	0	0	0		0	0	0	0
Gross Reve	0	0		0	0	0	0	0	0	0	0	0	0
Commissio	0	0		0	0	0	0	0	0	0	0	0	0
Net Revenu	0	0	0	0	0	0	0	0	0	0	0	0	0
										0	0		
Quantity	0	0	0	0	0	0	0	0	0	0	0	0	0
Price ($/RE	0		0	0	0	0	0	0	0	0	0	0	0
Gross Reve	0	0	0	0	0	0	0	0	0	0	0	0	0

Commissio	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Revenu	0	0	0	0	0	0	0	0	0	0	0	0	0
										0	0		
Quantity	0	0	0	0	0	0	0	0	0	0	0	0	0
Price ($/RE	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Reve	0	0	0	0	0	0	0	0	0	0	0	0	0
Commissio	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Remaining RECs										**----**	*-----**	**-----**	**-----**
Total Gross	0	0	0	0	0	0	0	0	0	0		0	0
Total Exper	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Net R	0	0	0	0	0	0	0	0	0	0	0	0	0

** The age of the Elk River Wind Farm devalues the RECs in the market.

September	October	November	December	Total
2020	2020	2020	2020	2020
37783	44718	51672	44313	523877
-----	**-----**	**-----**	**-----**	**-------**
				0
24373				250581
	25547			
0	0	0		0
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The Empire District Electric Company
Liberty Utilities
2021-2023 RES Compliance Plan
HIGHLY CONFIDENTIAL 20 CSR 4240-2.135(4)
ATTACHMENT 2 REC REPORT

HIGHLY CONFIDENTIAL Contract pricing and amounts.
Empire District Electric Company
Meridian Way 2020
HIGHLY CONFIDENTIAL

	January 2020	February 2020	March 2020	April 2020	May 2020	June 2020
Expected REC's	29921	29562	33647	33686	23451	22810
**Actual REC's **		**	**	**	**	
REC's Sold **		**	**	**	**	
To Counterparty					**	
3Degrees (BH 2019)						
Quantity	0	0 **	**	0	0	0
Price ($/REC)	0	**	**	0		0
Gross Revenue	0	0 **	**	0	0	0
Commission $'s	0	0 **	**	0		0
Net Revenue ($)	0	0 **	**	0	0	0
3Degrees (FH2020)						
Quantity	0	0	0	0 **	**	0
Price ($/REC)			0	0 **	**	0
Gross Revenue	0	0	0	0 **	**	0
Commission $'s	0	0	0	0		0
Net Revenue ($)	0	0	0	0 **	**	0
MJMEUC						
Quantity	0	0	0	0	**	
Price ($/REC)	0	0		0	**	
Gross Revenue	0	0		0	0	
Commission $'s	0	0		0	0	
Net Revenue ($)	0	0	0	0	0 **	
Quantity	0	0	0	0	0	0
Price ($/REC)	0		0	0	0	0
Gross Revenue	0	0	0	0	0	0
Commission $'s	0	0	0	0	0	0
Net Revenue ($)	0	0	0	0	0	0
Quantity	0	0	0	0	0	0
Price ($/REC)	0	0	0	0	0	0
Gross Revenue	0	0	0	0	0	0
Commission $'s	0	0	0	0	0	0
Net Revenue ($)	0	0	0	0	0	0
Cumulative Remaining R	0	0	0	0	0	0

Total Gross Revenue	0	0	**	**	0	**	**	**
Total Expense (Commiss	0	0	**	**	0			
Total Net Revenue	0	0	**	**	0	**	**	**

20% of output contracted to MJMEUC, retired in NARR

July	August	September	October	November	December
2020	2020	2020	2020	2020	2020
18375	21337	25602	26933	32215	29895
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		Total	
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ATTACHMENT 9 and 3: RES RETAIL RATE IMPACT

2021 RES Retail Rate Impact ("RRI") Filing

The Empire District Electric Company – Liberty Utilities Central ("Liberty-Empire") filed its most recent Missouri triennial Integrated Resource Plan compliance filing ("2019 IRP") in June 2019 in File No. EO-2019-0049, consistent with 4 CSR 240-22. Liberty-Empire filed its 2020 IRP Annual Update compliance filing ("2020 IRP Annual Update") in March 2020 in File No. EO-2020-0049. As of the writing of this 2021 RES RRI report, Liberty-Empire also plans to submit its 2021 IRP Annual Update compliance filing ("2021 IRP Annual Update") in March 2021, consistent with 4 CSR 240-22.080(3). Liberty-Empire's 2021 IRP Annual Update reviews the 2019 IRP preferred plan and the steps the Company has taken toward implementation since the filing of the 2019 IRP and of the 2020 IRP Annual Update. As further described in the 2021 IRP Annual Update, Liberty-Empire has taken significant steps toward implementing its 2019 IRP preferred plan and does not expect any notable changes to the plan at this time.

As a part of developing the 2021 IRP Annual Update, Liberty-Empire identified how the uncertain factors identified as critical in the 2019 IRP have changed since the filing of the 2021 IRP and of the 2020 IRP Annual Update. The identified critical uncertain factors were load; environmental standards and carbon prices; market power prices and fuel prices; and capital costs, transmission, and interest rates. In the 2021 IRP Annual Update, the critical uncertain factors were validated against the assumptions used in Liberty-Empire's most recent and approved rolling six-year plan, which is internally referred to as the six-year budget and which is developed on an annual basis as a part of Liberty-Empire's ongoing internal planning process. Liberty-Empire found that the values of the market power prices and fuel prices used in the latest six-year plan were lower than the 2019 IRP Base Case and slightly lower than the 2019 IRP Low Case, but not significantly enough to require re-modeling the IRP alternative plans in either the 2021 IRP Annual Update or in the 2021 RES filing. Additionally, the market power prices and fuel prices used in for the 2021 IRP Annual Update were developed for internal planning and budgeting purposes and do not represent a fundamental long-term view of the SPP market. Thus, Liberty-Empire did not update the PVRR results used for purposes of the RES RRI filing.

Liberty-Empire's 2021 RES RRI analysis contained herein calculates the current year's RRI and the RRI of the next ten (10) years per Section 5 of Missouri 4 CSR 240-20.100 (the "Rule"). According to the Rule, the RES RRI is determined by subtracting the total retail revenue requirement including an incremental *non-renewable* generation and purchased power portfolio from the total retail revenue requirement including an incremental *RES-compliant* generation and purchased power portfolio.

Consistent with the Rule, Liberty-Empire defined the non-renewable generation and purchased power portfolio ("Plan 4 – No RES") as the utility's existing generation and purchased power resource portfolio excluding all renewable resources, plus additional non-renewable resources sufficient to meet the utility's needs on a least-cost basis for the next ten years. To calculate the total retail revenue requirement of the Plan 4 – No RES portfolio, Liberty-Empire removed the following renewables resources from the 2019 IRP preferred plan:

Resource Name	Resource Type	Year Removed	UCAP MW
Elk River Meridian Way	Wind	2020	31
Ozark Beach	Hydro	2020	16
Neosho Wind	Wind	2020	91
Community Solar	Solar	2021	0.5
2023 Utility-Scale Solar 2034 Utility-Scale Solar	Solar	2023 2034	50

Resource Name	Resource Type	Year Removed	UCAP MW
2027 Utility-Scale Solar Plus Storage	Solar + Storage	2027	30
2022 Distributed Solar Plus Storage 2028 Distributed Solar Plus Storage 2032 Distributed Solar Plus Storage 2036 Distributed Solar Plus Storage	Solar + Storage	2022 2028 2032 2036	44
Total			262.5

To account for the 262.5 MW reduction in total accredited capacity and to maintain a minimum capacity margin of 12% over the modeling horizon, a 49 MW gas aeroderivative was added in 2020, a 148 MW gas aeroderivative was added in 2027, and a 49 MW gas aeroderivative was added in 2034.

Consistent with the Rule, Liberty-Empire defined the RES-compliant generation and purchased power portfolio ("Plan 4 – RES") as the utility's existing generation and purchased power resource portfolio, plus an amount of least-cost renewable resources sufficient to achieve RES standards, plus any additional non-renewable, least-cost resources needed to meet the utility's needs for the next ten years. To calculate the total retail revenue requirement of the Plan 4 – RES portfolio, Liberty-Empire used the 2019 IRP preferred plan (Plan 4), which complies with this definition and includes renewable resources that meet the RES requirements set forth in the Rule. As required by Rule Section 5(C), rebates made during each calendar year were also included in the cost of generation from renewable energy resources.

Rule Section 5(B)4 states that the assumptions regarding projected renewable energy resource additions must utilize the most recent elecricity utility resource planning analysis. As mentioned earlier in this report, and as described further in the 2021 IRP Annual Update filing, due to a relatively small magnitude of change in the values of the updated critical uncertain factors compared to the 2019 IRP, Liberty-Empire did not develop new fundamental commodity prices or re-model Plan 4 – No RES and Plan 4 – RES using market assumptions. Consistent with the Rule language, Liberty-Empire used market and fuel prices from its most recent electric utility resource planning analysis assumptions, which were taken from ABB's 2018 Fall Midwest Power Reference Case. Consistent with the 2019 IRP, a 50% probability weighting was given to the no-carbon tax scenario and 50% to the carbon tax scenario.

Exhibit 1 includes the expected value of costs associated with carbon emissions used in this analysis. Exhibit 2 includes market prices for the SPP-KSMO market area with and without the impact of a carbon tax begining in 2026.

Exhibit 1: Expected Value of Carbon Tax ($Nom/Short Ton)

	Carbon Tax ($Nom/Short Ton)		
	No Carbon - 50%	Carbon - 50%	Expected Value
2021	*-	-	-
2022	*-	-	-
2023	*-	-	-
2024	*-	-	-
2025	*-	-	-
2026	*-		*
2027	*-		*
2028	*-		*
2029	*-		*
2030	*-		*

2031	*-		*
2032	*-		*
2033	*-		*
2034	*-		*
2035	*-		*
2036	*-		*
2037	*-		*
2038	*-		*
2039	*-		*
2040	*-		*

* *Exhibit 2 SPP-KSMO 7x24 Weighted Market Prices (Nom$/MWh)* *

Results:

The following table shows the calculation for the average 10-year compliance spend over the 10-year period (2021-2030) as required by Rule 5(B). The RRI Budget is calculated as 1% of the Plan 4 Revenue Requirement. Actual Compliance Spend is calculated as the difference between the PVRRs of Plan 4 and Plan 4 – RES in each year. As indicated in the table, the average Actual Compliance Spend for the 10-year period does not exceed the budgeted 1% RRI for the 10-year period.

Exhibit 3: 2021-2030 Annual Revenue Requirements and RES Compliance Spend

Dollars in millions	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**
RRI Budget (2021-2030)	*										*
Actual Compliance Spend (2021-2030)	*										*
Revenue Requirement (2021-2030)	*										*
Budget (% of RR)	*%										%*
Actual Compliance Spend (% of RR)	*%										%*

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The following tables summarize the Retail Rate Impact calculation, including the annual carry-forward amount required by Rule 5(G).

Exhibit 4 2021-2030 RRI Calculation Period

2021-2030 RRI Calculation Period

		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	10-Year Budget*	Cumulative Budget (2021-2030)
Baseline Revenue Requirement ($MM)	*												*
Annual 1% ($MM)	*											*	*
													Cumulative Costs (2021-2030)
Actual Costs of Compliance	*												*
Annual Over (Under)	*											*	
Plus Prior Carryover	*												
Cumulative Carryover	*											*	

Exhibit 5 2022-2031 RRI Calculation Period

2022-2031 RRI Calculation Period

		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Budget*	Cumulative Budget (2021-2031)
Baseline Revenue Requirement ($MM)	*												*
Annual 1% ($MM)	*											* *	*
													* Cumulative Costs (2021-2031)
Actual Costs of Compliance	*												*
Annual Over (Under)	*											*	
Plus Prior Carryover	*												
Cumulative Carryover	*											*	

Exhibit 6 2023-2032 RRI Calculation Period

2023-2032 RRI Calculation Period

		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	10-Year Budget*	Cumulative Budget (2021-2032)
Baseline Revenue Requirement ($MM)	*												*
Annual 1% ($MM)	*											*	*
													* Cumulative Costs (2021-2032)
Actual Costs of Compliance	*												*
Annual Over (Under)	*											*	
Plus Prior Carryover	*												
Cumulative Carryover	*											*	

Exhibit 7 2024-2033 RRI Calculation Period

2024-2033 RRI Calculation Period

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10-Year Budget"	Cumulative Budget (2021-2033)
Baseline Revenue Requirement ($MM)	*										*	*
Annual 1% ($MM)	*										*	
												Cumulative Costs (2021-2033)
Actual Costs of Compliance	*											*
Annual Over (Under)	*										*	
Plus Prior Carryover	*											
Cumulative Carryover	*										*	

Exhibit 8 2025-2034 RRI Calculation Period

2025-2034 RRI Calculation Period

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	10-Year Budget"	Cumulative Budget (2021-2034)
Baseline Revenue Requirement ($MM)	*										*	*
Annual 1% ($MM)	*										*	*
												Cumulative Costs (2021-2034)
Actual Costs of Compliance	*											*
Annual Over (Under)	*										*	
Plus Prior Carryover	*											
Cumulative Carryover	*										*	

Exhibit 9 2026-2035 RRI Calculation Period

2026-2035 RRI Calculation Period

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	10-Year Budget"	Cumulative Budget (2021-2035)
Baseline Revenue Requirement ($MM)	*										*	*
Annual 1% ($MM)	*										*	*
												Cumulative Costs (2021-2035)
Actual Costs of Compliance	*											*
Annual Over (Under)	*										*	
Plus Prior Carryover	*											
Cumulative Carryover	*										*	

Exhibit 10 2027-2036 RRI Calculation Period

2027-2036 RRI Calculation Period

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	10-Year Budget"	Cumulative Budget (2021-2036)
Baseline Revenue Requirement ($MM)	*										*	*
Annual 1% ($MM)	*										*	*
												Cumulative Costs (2021-2036)
Actual Costs of Compliance	*											*
Annual Over (Under)	*										*	
Plus Prior Carryover	*											
Cumulative Carryover	*										*	

Exhibit 11 2028-2037 RRI Calculation Period

2028-2037 RRI Calculation Period

	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	10-Year "Budget"	
Baseline Revenue Requirement ($MM) *												Cumulative Budget (2021-2037) *
Annual 1% ($MM) *											*	*
											*	Cumulative Costs (2021-2037) *
Actual Costs of Compliance *												*
Annual Over (Under) *											*	
Plus Prior Carryover *												
Cumulative Carryover *											*	

Exhibit 12 2029-2038 RRI Calculation Period

2029-2038 RRI Calculation Period

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	10-Year "Budget"	
Baseline Revenue Requirement ($MM) *												Cumulative Budget (2021-2038) *
Annual 1% ($MM) *											*	*
											*	Cumulative Costs (2021-2038) *
Actual Costs of Compliance *												*
Annual Over (Under) *											*	
Plus Prior Carryover *												
Cumulative Carryover *											*	

Exhibit 13 2030-2039 RRI Calculation Period

2030-2039 RRI Calculation Period

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	10-Year "Budget"	
Baseline Revenue Requirement ($MM) *												Cumulative Budget (2021-2039) *
Annual 1% ($MM) *											*	*
											*	Cumulative Costs (2021-2039) *
Actual Costs of Compliance *												*
Annual Over (Under) *											*	
Plus Prior Carryover *												
Cumulative Carryover *											*	