

EMPIRE DISTRICT ELECTRIC COMPANY

2015 ANNUAL RENEWABLE ENERGY STANDARD COMPLIANCE PLAN

Prepared in Compliance with 4 CSR 240-20.100

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INTRODUCTION

Pursuant to the Missouri Public Service Commission's (Commission) renewable energy standards rule, 4 CSR 240-20.100(7), 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, 2015 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 Iberdrola 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 Windfarm, LLC, a wholly owned subsidiary of EDP Renewables North America 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.

There is a separate component, the "solar" RES that requires compliance which can only be met with solar SRECs (Solar Renewable Energy Credits) or energy from solar generation resources. EDE will meet the solar RES compliance obligation through customer-generated or purchased SRECs.

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

SECTION (7) (B) 1 A: PLANNED RES COMPLIANCE

Non-solar Compliance

4 CSR 240-20 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 certificates (RECs) equal to at least 2 percent of the electricity they sell to retail customers from renewable sources. That percentage increases to 15 percent by 2021.

This year and in the subsequent two years, EDE plans to comply with the RES through contracts with Elk River Windfarm, LLC and Cloud County Windfarm, LLC, and/or generation from its Ozark Beach Hydroelectric facility. In fact, EDE currently could meet the 2021 requirement through its renewable energy purchase power agreements and owned generation if it chose not to sell any RECs generated from these facilities.

EDE owns the Ozark Beach Hydroelectric Project (Ozark Beach) which generates approximately 67,000 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 counts as one and twenty-five hundredths (1.25) RECs for purposes of compliance with this rule.

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.

Time Period	RES Requirement Non-Solar %	MO Retail Sales	Elk River*	Meridian Way*	Ozark Beach*	Total Potential ¹	RES Requirement
2015	5%	4,113,679	550,000	330,000	83,750	963,750	205,684
2016	5%	4,130,527	550,000	330,000	83,750	963,750	206,526
2017	5%	4,135,824	550,000	330,000	83,750	963,750	206,791

*Expected average operation; Ozark Beach number includes additional 0.25 credit

¹Total expected eligible RECs not including potential 3rd party sales or other RES requirements.

Solar Compliance

Pursuant to Section 393.1050, RSMo, as determined by the Missouri Public Service Commission (MoPSC) EDE has relied on an exemption from solar requirements and solar rebates as has been reported in past annual Renewable Energy Standard Plans. Information regarding the Missouri Renewable Energy Initiative Solar Exemption was included in EDE's originally submitted plan as ATTACHMENT 1.

This issue was challenged and the section of law supporting EDE's exemption was repealed by implication by the Missouri Supreme Court. 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 will buy 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 2015 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. The balance of EDE's solar RES needs will come from procurement of SRECs through third party brokers.

In the future, (2016-2017) Empire will use customer-generated SRECs, banked SRECs, or purchase SRECS as needed through third party brokers. EDE will also evaluate and monitor the feasibility and economics of constructing and operating utility scale solar generation.

SECTION (7) (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 entered into a 20-year purchased power agreement with Cloud County Windfarm, LLC, owned by EDP Renewables North America LLC, Houston, Texas. Pursuant to the terms of that agreement, EDE will purchase all of the output from the 105 MW Phase 1 Meridian Way Wind Farm located in Cloud County, Kansas. Empire anticipates generation of approximately 550,000 MWhs for Elk River and approximately 330,000 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 20th Anniversary of each facility’s respective completion date.

SECTION (7) (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.

*Missouri Retail Sales	Year	Projected Retail Electric Sales (MWh)	Non-solar Requirement (MWh)	Solar Requirement (MWh)
Projected				
	2015	4,113,679	205,684	4,114
	2016	4,130,527	206,526	4,131
	2017	4,135,824	206,791	4,136

**Source: 2015-2019 Revenue Model, draft 7*

SECTION (7) (B) 1 D: COMPARISON TO PREFERRED RESOURCE PLAN

EDE will fully meet the RES compliance requirements for 2015, 2016, and 2017 with its current purchased power contracts and hydroelectric facility. Therefore, there is no difference between the RES Compliance Plan and the most recent Integrated Resource Plan (IRP) filed with the Commission in July of 2013 and updated in March of 2015. One of EDE's special contemporary issues listed in the updated IRP 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 (7) (B) 1 E: RES COMPLIANCE PLAN COST

EDE currently meets the Missouri 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 the least cost, most prudent methodology to achieve 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 obtain SRECs transferred from qualified customer-generator's systems as a condition of receiving the solar rebate. The cost to purchase third part SRECs should be minimal.

SECTION (7) (B) 1 F: RES RETAIL RATE IMPACT

EDE does not anticipate any retail rate impact for the Compliance Plan period. Very minimal cost is directly attributable to EDE's current or anticipated RES compliance and all those costs are associated with (1) the registration of assets and RECs (Renewable Energy Credits) in the North American Renewables Registry (N.A.R.R.), and (2) costs associated with retirement of RECs. Costs incurred for 2014 compliance totaled \$53,961 for the registration, retirement and associated costs of REC management. In addition, Empire has incurred more

costs in legal fees associated with the Missouri RES than it has on actual compliance. These costs total \$57,258 for 2014. EDE does not anticipate filing for RES recovery associated with these costs as Empire's base rates reflect a representative level of renewable registry costs. To illustrate the magnitude of its required expenditures for compliance, EDE's current annual revenue requirement approved by the Commission in Case No. ER-2012-0345 is \$429,171,799. One percent of that number is approximately \$4.3M.

Although 4 CSR 240-20.100 (7) (B) 1 F prescribes a detailed calculation of the retail rate impact on EDE's customers during the compliance plan period, because EDE does not propose to add incremental renewable energy resource generation directly attributable to RES compliance during the 2015-2017 Compliance Plan period, 4 CSR 240-20.100(5) (B) exempts EDE from having to make that calculation. Consequently, EDE believes the information provided in the preceding paragraph satisfies the Commission's rules.

Additional information is provided in ATTACHMENTS 2, 3, 4, 5, and 6. This information includes attestations for both Elk River and Cloud County Windfarms, Elk River and Cloud County Annual REC Report, Elk River and Cloud County monthly invoices with meter reads, the wind generation allocation for Missouri retail customers, and N.A.R.R. retirement and project information. This information was requested for the 2013 and 2014 RES Compliance Plans.

EDE has recently begun offering rebates for solar installations by customers as required by the MoPSC. In an effort to predict the impact of the two percent solar requirement within the one percent retail rate cap, EDE has evaluated five customer participation scenarios. ATTACHMENT 7, the RES Retail Rate Impact Statement, describes this process in detail. Based on the modeled scenarios, exceeding the one percent rate cap should not be an issue. If customer participation levels exceed expectations Empire will notify the Commission per its approved rules and procedures.

SECTION (7) (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.