

EMPIRE DISTRICT ELECTRIC COMPANY

2013 ANNUAL RENEWABLE ENERGY STANDARD COMPLIANCE PLAN

Prepared in Compliance with 4 CSR 240-20.100

April 15, 2013



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2013 ANNUAL RENEWABLE ENERGY STANDARD COMPLIANCE PLAN

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), a Kansas corporation, is filing its third 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, 2013 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, owned by EDP Renewables North America LLC (formerly known as Horizon Wind Energy 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.

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

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

Pursuant to Section 393.1050, RSMo, EDE is exempt from solar requirements and solar rebates. (See memorandum of explanation regarding Missouri Renewable Energy Initiative Solar Exemption, Attachment 1.)

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 |
|-------------|-----------------------------|-----------------|------------|---------------|--------------|------------------------------|-----------------|
| | | | | | | | |
| 2013 | 2% | 4,134,125 | 550,000 | 330,000 | 83,750 | 963,750 | 82,683 |
| 2014 | 5% | 4,153,783 | 550,000 | 330,000 | 83,750 | 963,750 | 207,689 |
| 2015 | 5% | 4,177,254 | 550,000 | 330,000 | 83,750 | 963,750 | 208,863 |

*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.

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 requirement is multiplied by in order to calculate EDE's RES requirements.

| *Missouri Retail Sales | Year | MWh |
|-------------------------------|-------------|------------|
| | | |
| Projected | | |
| | 2013 | 4,134,125 |
| | 2014 | 4,153,783 |
| | 2015 | 4,177,254 |

**Source: 2013-2017 Revenue Model, draft 6*

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

EDE will fully meet the RES compliance requirements for 2013, 2014, and 2015 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 September of 2010 and updated in March of 2013.

Empire submitted its most recent annual update to the IRP on March 27, 2012. 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 to meet any current or future RES.

SECTION (7) (B) 1 E: RES COMPLIANCE PLAN COST

EDE has already achieved expected RES compliance for the plan period, and therefore it expects very minimal spending will be necessary to achieve the required compliance designation. Analysis of the IRP indicates the current RES plan is the least cost, most prudent methodology to achieve compliance with the RES.

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 in the North American

Renewables Registry and (2) costs associated with retirement of RECs. Costs incurred for 2012 compliance totaled \$77,293, and EDE does not anticipate filing for RES recovery associated with these costs as these costs already flow through EDE's fuel adjustment clause (FAC). 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 and EDE's expected cost of compliance is much less than that number.

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 anticipate any retail rate impact attributable to its compliance actions no useful purpose would be served by performing that calculation. Consequently, EDE believes the information provided in the preceding paragraph satisfies the purpose of the Commission's rules. However, if the Commission believes a formal waiver of its rules is required, concurrently with the filing of this RES Compliance Plan EDE has requested a waiver from the specific requirements of 4 CSR 240-20.100 (7)(B)1.F, as authorized by 4 CSR 240-20.100(10).

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.

ATTACHMENT
1

MEMORANDUM

DATE: January 7, 2009

TO: Brad Beecher Blake Mertens
Harold Colgin

FROM: Tim Wilson

SUBJECT: Missouri Renewable Energy Initiative Solar Exemption

The Missouri Renewable Energy Initiative has been voted on and was certified by the Secretary of State on December 2, 2008. The initiative essentially calls for the following:

- (a) 2% of sales to come from renewable energy sources for calendar years 2011 through 2013;
- (b) 5% of sales to come from renewable energy sources for calendar years 2014 through 2017;
- (c) 10% of sales to come from renewable energy sources for calendar years 2018 through 2020;
- (d) 15% of sales to come from renewable energy sources for calendar years beginning in 2021;

Further, the Missouri Renewable Energy Initiative contains the following requirement:

At least 2% of each portfolio requirement shall be derived from solar energy....

Senate Bill 1181 was also passed by the Missouri legislature and signed into law by the Governor in 2008 which contained the following provision:

Section 1. Notwithstanding any other provision of law, any electrical corporation as defined by subdivision 15 of section 386.020, RSMo, which, by January 20, 2009, achieves an amount of eligible renewable energy technology nameplate capacity equal to or greater than fifteen percent of such corporation's total owned fossil-fired generating capacity, shall be exempt thereafter from a requirement to pay any installation subsidy, fee, or rebate to its customers that install their own solar electric energy system and shall be exempt from meeting any mandated solar renewable energy standard requirements.

In other words, if Empire has a renewable energy nameplate capacity of greater than 15% of its total owned fossil-fired generating capacity by January 20, 2009, Empire does not have to meet the solar requirement of "At least 2% of each portfolio requirement shall be derived from solar energy" contained in the Missouri Renewable Energy Initiative. Furthermore, Empire will be exempt thereafter as well.

Empire's renewable energy nameplate capacity as of January 1, 2009 is 255 megawatts (MW). This number is derived from the 150 MW of capacity related to the Elk River Windfarm (with commercial operation date of December 15, 2005) and the 105 MW Meridian Way Wind Farm (with a commercial operation date of December 23, 2008). Empire's total owned fossil-fired generating capacity in operation as of January 1, 2009 is as follows:

| | |
|---------------------------|---------------|
| Asbury Power Plant | 210 MW |
| Energy Center Power Plant | 269 MW |
| Iatan Power Plant | 80 MW |
| Riverton Power Plant | 286 MW |
| State Line Power Plant | <u>396 MW</u> |

1/7/2009

Total

1,241 MW

As such, when one divides the 255 MW of renewable energy nameplate capacity by the 1,241 MW of owned fossil-fired generating capacity one gets 20.5% meaning, according to the Section 1 provision of Senate Bill 1181, Empire, “...shall be exempt thereafter from a requirement to pay any installation subsidy, fee, or rebate to its customers that install their own solar electric energy system and shall be exempt from meeting any mandated solar renewable energy standard requirements” such as that provided in the Missouri Renewable Energy Initiative.

In summary, due to Empire achieving an amount of eligible renewable energy technology nameplate capacity equal to or greater than fifteen percent of our total owned fossil-fired generating capacity by January 20, 2009 we are thereby exempt from the 2% solar requirement stated in the Missouri Renewable Energy Initiative and will continue to be exempt thereafter.

We, the Strategic Projects Department, will continue to monitor any effects this may have on our ability to market and sell the Renewable Energy Credits we receive via the Elk River and Meridian Way purchased power contracts. Based on previous conversations with Green-e representatives, it is our current understanding that Empire’s invoking of this provision will NOT affect the status of our Renewable Energy Certificates; however, in this ever evolving renewable energy market continued due diligence is required. Since compliance with the Missouri Renewable Energy Initiative is not required until 2011, Empire still has time to act in regards to the 2% solar requirement if Green-e brings forth any concerns.