Chapter 20—Electric Utilities 4 CSR 240-20 (see footnotes *, ** & ***)

4 CSR 240-20.100 Electric Utility Renewable Energy Standard Requirements

PURPOSE: This rule sets the definitions, structure, operation, and procedures relevant to compliance with the Renewable Energy Standard.

(1) Definitions. For the purpose of this rule—

(A) Calendar year means a period of three hundred sixty-five (365) days (or three hundred sixty-six (366) days for leap years) that includes January 1 of the year and all subsequent days through and including December 31 of the same year;

(B) Co-fire means simultaneously using multiple fuels in a single generating unit to produce electricity;

(C) Commission means the Public Service Commission of the state of Missouri;

(D) Customer-generator means the owner, lessee, or operator of an electric energy generation unit that meets all of the following criteria:

1. Is powered by a renewable energy resource;
2. Is located on premises that are owned, operated, leased, or otherwise controlled by the party as retail account holder and which corresponds to the service address for the retail account;
3. Is interconnected and operates in parallel phase and synchronization with an electric utility and has been approved for interconnection by said electric utility; and
4. Meets all applicable safety, performance, interconnection, and reliability standards endorsed by the net metering rule, 4 CSR 240-20.065(1)(C)6. and 4 CSR 240-20.065(1)(C)7.

(E) Department means the Department of Natural Resources;

(F) Electric utility means an electrical corporation as defined in section 386.020, RSMo;

(G) General rate proceeding means a general rate increase proceeding or complaint proceeding before the commission in which all relevant factors that may affect the costs or rates and charges of the electric utility are considered by the commission;

(H) Green pricing program means a voluntary program that provides an electric utility's retail customers an opportunity to purchase renewable energy or renewable energy credits (RECs);

(I) Rate class means a customer class defined in an electric utility's tariff. Generally, rate classes include Residential, Small General Service, Large General Service, and Large Power Service, but may include additional rate classes. Each rate class includes all customers served under all variations of the rate schedules available to that class;

(J) REC, Renewable Energy Credit, or Renewable Energy Certificate means a tradable certificate, that is either certified by an entity approved as an acceptable authority by the commission or as validated through the commission's approved REC tracking system or a generator's attestation. Regardless of whether RECs have been certified, RECs must be validated through an attestation signed by an authorized individual of the company owning the renewable energy resource. Such attestation shall contain the name and address of the generator, the type of renewable energy resource technology, and the time and date of the generation. An REC represents that one (1) megawatt-hour of electricity has been generated from a renewable energy resource~~s~~ that is located in Missouri or that generates renewable energy delivered to Missouri ratepayers. ~~–~~RECs include, but are not limited to, solar renewable energy credits. An REC expires three (3) years from the date the electricity associated with that REC was generated. Only RECS and SRECs representing renewable energy resources generated on or after January 1, 2011 may count for purposes of compliance. RECs may be purchased by electric utilities with or without the energy the REC represents, which was generated by the renewable energy resource.

(K) Renewable energy resource(s) means electric energy produced from the following:

1. Wind;
2. Solar, including solar thermal sources utilized to generate electricity, photovoltaic cells, or photovoltaic panels;
3. Dedicated crops grown for energy production;
4. Cellulosic agricultural residues;
5. Plant residues;
6. Methane from landfills or wastewater treatment;
7. Clean and untreated wood, such as pallets;
8. Hydropower (not including pumped storage) that does not require a new diversion or impoundment of water and ~~that has~~ where the sum total of all the facility's generators have a nameplate ratings of ten (10) megawatts or less;
9. Fuel cells using hydrogen produced by any of the renewable energy technologies in paragraphs 1. through 8. of this subsection; and

10. Other sources of energy not including nuclear that become available after November 4, 2008, and are certified as renewable by rule by the department;
(L) RES or Renewable Energy Standard means sections 393.1025 and 393.1030, RSMo;
(M) RESRAM or Renewable Energy Standard Rate Adjustment Mechanism means a mechanism that allows periodic rate adjustments to recover prudently incurred RES compliance costs and its prudently incurred legal, accounting and other administrative cost directly related to its compliance with RES requirements and pass-through to customers the benefits of any savings achieved in meeting the requirements of the Renewable Energy Standard;
(N) RES compliance costs means prudently incurred costs, both capital and expense, directly related to compliance with the Renewable Energy Standard not including any legal, accounting and other administrative costs. Prudently incurred costs do not include any increased costs resulting from negligent or wrongful acts or omissions by the electric utility;
(O) RES requirements mean the numeric values and other requirements established by section 393.1030.1, RSMo, and subsections (2)(C) and (2)(D) of this rule;
(P) RES requirement periods means each period of time described under paragraphs 1. through 4. of subsections (2)(C) and (2)(D) of this rule.
(~~P~~Q) The RES revenue requirement means the following:
1. All expensed RES compliance costs (other than taxes and depreciation associated with capital projects) that are included in the electric utility's revenue requirement in the proceeding in which the RESRAM is established, continued, modified, or discontinued; and
2. The costs (i.e., the return, taxes, and depreciation) of any capital projects whose primary purpose is to permit the electric utility to comply with any RES requirement. The costs of such capital projects shall be those identified on the electric utility's books and records as of the last day of the test year, as updated, utilized in the proceeding in which the RESRAM is established, continued, modified, or discontinued;
(~~Q~~R) Solar renewable energy credit or SREC means an REC created by generation of electric energy from solar thermal sources, photovoltaic cells, and photovoltaic panels;
(~~R~~S) Staff means all commission employees, except the secretary to the commission, general counsel, technical advisory staff as defined by section 386.135 RSMo, hearing officer, or administrative or regulatory law judge;
(~~S~~T) Standard Test Conditions means solar incidence of one (1) kilowatt (kW) per square meter and a cell or panel temperature of twenty-five degrees centigrade (25 °C) as related to measuring the capability of solar electrical generating equipment;
(~~T~~U) Total retail electric sales, or total retail electric energy usage, means the megawatt hours of electricity delivered in a specified time period by an electric utility to its Missouri retail customers as reflected in the retail customers' monthly billing statements; and
(~~U~~V) Utility renewable energy resources mean those renewable energy resources that are owned, controlled, or purchased by the electric utility.
(2) Requirements. Pursuant to the provisions of this rule and sections 393.1025 and 393.1030, RSMo, all electric utilities must generate or purchase RECs and S-RECs associated with electricity from renewable energy resources in sufficient quantity to meet both the RES requirements and RES solar energy requirements respectively on a calendar year basis. Utility renewable energy resources utilized for compliance with this rule must include the RECs or S-RECs associated with the generation. The RES requirements and the RES solar energy requirements are based on total retail electric sales of the electric utility. The requirements set forth in this rule shall not preclude an electric utility from being able to prudently invest and recover all prudently incurred costs in renewable energy resources that exceed the requirements or limits of this rule and are consistent with the prudent implementation of any resource acquisition strategy developed in compliance with 4 CSR 240-22, Electric Utility Resource Planning. RECs or S-RECs produced from these additional renewable energy resources shall be eligible to be counted toward the RES requirements.
(A) Reserved *
(B) The amount of renewable energy resources or RECs associated with renewable energy resources that can be counted towards meeting the RES requirements are as follows:
1. If the facility generating the renewable energy resources is located in Missouri, the allowed amount is the amount of megawatt-hours generated by the applicable generating facility, further subject to the additional twenty-five hundredths (0.25) credit pursuant to subsection (3)(G) of this rule; and
2.Reserved *
3. RECs created by the operation of customer- generator facilities and acquired by the Missouri electric utility shall qualify for RES compliance if the customer-generator is a Missouri electric energy retail customer, regardless of the amount of energy the customer-

generator provides to the associated retail electric provider through net metering in accordance with 4 CSR 240-20.065, Net Metering. RECs are created by the operation of the customer-generator facility, even if a significant amount or the total amount of electrical energy is consumed on-site at the location of the customer-generator.

(C) The RES requirements are—

1. No less than two percent (2%) in each calendar year 2011 through 2013;
2. No less than five percent (5%) in each calendar year 2014 through 2017;
3. No less than ten percent (10%) in each calendar year 2018 through 2020; and
4. No less than fifteen percent (15%) in each calendar year beginning in 2021.

(D) At least two percent (2%) of each RES requirement listed in subsection (C) of this section shall be derived from solar energy.

The RES solar energy requirements are—

1. No less than four-hundredths percent (0.04%) in each calendar year 2011 through 2013;
2. No less than one-tenth percent (0.1%) in each calendar year 2014 through 2017;
3. No less than two-tenths percent (0.2%) in each calendar year 2018 through 2020; and
4. No less than three-tenths percent (0.3%) in each calendar year beginning in 2021.

(E) If compliance with the above RES and RES solar energy requirements would cause retail rates to increase on average in excess of one percent (1%) as calculated per section (5) of this rule, the above requirements shall be limited to providing renewable energy in amounts that would cause retail rates to increase on average one percent (1%) as calculated per section (5) of this rule.

(F) If an electric utility is not required to meet the RES requirements of subsection (C) of this section in a calendar year, because doing so would cause retail rates to increase on average in excess of one percent (1%) as calculated per section (5) of this rule, then the RES solar energy requirement specified in subsection (2)(D) shall be two percent (2%) of the renewable energy that can be acquired subject to the one percent (1%) average retail rates limit as calculated per section (5) of this rule.

(G) If an electric utility intends to accept proposals for renewable energy resources to be owned by the electric utility or an affiliate of the electric utility, it shall comply with the necessary requirements of 4 CSR 240- 20.015, Affiliate Transactions.

(H) An electric utility may procure RECs in advance of the next RES requirement period and pass through such benefits during such subsequent RES requirement period.

(3) Renewable Energy Credits. Subject to the requirements of section (2) of this rule, RECs and S-RECs shall be utilized to satisfy the RES requirements of this rule. S-RECs shall be utilized to comply with the RES solar energy requirements. S-RECs may also be utilized to satisfy the non-solar RES requirements.

(A) The REC or S-REC creation is linked to the associated renewable energy resource. For purposes of retaining RECs or S-RECs, the utility, person, or entity responsible for creation of the REC or S-REC must maintain verifiable records including generator attestation that prove the creation date. The electric utility shall comply with the requirement of this subsection through the registration of the REC in the commission's approved REC tracking system.

(B) An REC may only be used once to comply with this rule. RECs or S-RECs used to comply with this rule may not also be used to satisfy any similar nonfederal renewable energy standard or requirement. Electric utilities may not use RECs or S-RECs retired under a green pricing program to comply with this rule. An REC or S-REC may be used for compliance with the RES or RES solar requirements of this rule for a calendar year in which it expired so long as it was valid during some portion of that year.

(C) RECs or S-RECs associated with customer- generated net-metered renewable energy resources shall be owned by the customer generator. All contracts between electric utilities and the owners of net-metered generation sources entered into after the effective date of these rules shall clearly specify the entity or person who shall own the RECs or S-RECs associated with the energy generated by the net-metered generation source. Electric metering associated with net-metered sources shall meet the meter accuracy and testing requirements of 4 CSR 240-10.030, Standards of Quality. For solar electric systems utilizing the provisions of subsection (4)(H) of this rule, no meter accuracy or testing requirements are required.

(D) RECs that are generated with fuel cell energy using hydrogen derived from a renewable energy resource are eligible for compliance purposes only to the extent that the energy used to generate the hydrogen did not create RECs.

(E) If an electrical generator co-fires an eligible renewable energy fuel source with an ineligible fuel source, only the proportion of the electrical energy output associated with the eligible renewable energy fuel source shall be permitted to count toward compliance with the RES. For co-fired generation of electricity, the renewable energy resources shall be determined by multiplying the electricity output by the direct proportion of the as-fired British thermal unit (BTU) content of the fuel burned that is a source of renewable energy resources as defined in this rule to the as-fired BTU content of the total fuel burned.

(F) All electric utilities shall use a commission designated common central thirdparty

registry for REC accounting for RES requirements, unless otherwise ordered for good cause shown.
(G) RECs that are created by the generation of electricity by a renewable energy resource physically located in the state of Missouri shall count as one and twenty-five hundredths (1.25) RECs for purposes of compliance with this rule. This additional credit shall not be tracked in the tracking systems specified in subsection (F) of this section.
This additional credit of twenty-five hundredths (0.25) shall be recognized when the electric utility files its annual compliance report in accordance with section (7) of this rule.
(H) RECs that are purchased by an electric utility from a facility that subsequently fails to meet the requirements for renewable energy resources shall continue to be valid through the date of facility decertification.
(I) Electric utilities required to comply with this rule may purchase or sell RECs, either bilaterally or in any open market system, inside or outside the state, without prior commission approval.
(J) For compliance purposes, utilities shall retire RECs in sufficient quantities to meet the requirements of this rule. The RECs shall be retired during the calendar year for which compliance is being achieved. Utilities may retire RECs during the months of January, February, or March following the calendar year for which compliance is being achieved and designate those retired RECs as counting towards the requirements of that previous calendar year. Any RECs retired in this manner shall be specifically annotated in the registry designated in accordance with subsection (F) of this section and the annual compliance report filed in accordance with section (7) of this rule. RECs retired in January, February, or March to be counted towards compliance for the previous calendar year in accordance with this subsection shall not exceed ten percent (10%) of the total RECs necessary to be retired for compliance for that calendar year.
(K) RECs may be aggregated with other RECs and utilized for compliance purposes.
RECs shall be issued in whole increments. Any fractional RECs, aggregated or nonaggregated, remaining after certificate issuance will be carried forward to the next reporting period for the specific facility(ies). REC aggregation may be performed by electric utilities, customer-generators, or other parties.
(L) Fractional RECs may be aggregated with other fractional RECs and utilized for compliance purposes.
(4) Solar Rebate. Pursuant to section 393.1030, RSMo, and this rule, electric utilities shall include in their tariffs a provision regarding retail account holder rebates for solar electric systems. These rebates shall be available to Missouri electric utility retail account holders who install new or expanded solar electric systems that become operational after December 31, 2009. The minimum amount of the rebate shall be two dollars ($2.00) per installed watt up to a maximum of twenty-five (25) kW per retail account. To qualify for the solar rebate and the Standard Offer Contract of subsection (H) of this section, the customer-owned or leased solar generating equipment shall be interconnected with the electric utility's system.
(A) The retail account holder must be an active account on the electric utility's system and in good payment standing.
(B) The solar electric system must be permanently installed on the account holder's premises. As installed, the solar electric system shall be situated in a location where a minimum of eighty-five percent (85%) of the solar resource is available to the system as verified by the customer or the customer's installer at the time of installation.
(C) The installed solar electric system must remain in place on the account holder's premises for the duration of its useful life which shall be deemed to be ten (10) years unless determined otherwise by the commission.
(D) Solar electric systems installed by retail account holders must consist of equipment that is commercially available and factory new when installed on the original account holder's premises, and the principal system components (i.e., photovoltaic modules and inverters) shall be covered by a functional warranty from the manufacturer for a minimum period of ten (10) years, unless determined otherwise by the commission, with the exception of solar battery components.
Rebuilt, used, or refurbished equipment is not eligible to receive the rebate. For any applicable retail account, rebates shall be limited to twenty-five (25) kW. Retail accounts which have been awarded rebates for an aggregate of less than twenty-five (25) kW shall qualify to apply for rebates for system expansions up to an aggregate of twentyfive (25) kW. Systems greater than twentyfive (25) kW but less than one hundred (100) kW in size shall be eligible for a solar rebate up to the twenty-five (25) kW limit of this section.
(E) The solar electric system shall meet all requirements of 4 CSR 240-20.065, Net Metering, or a tariff approved by the commission for customer-owned generation.
(F) The electric utility may inspect retail account holder owned solar electric systems for which it has paid a solar rebate pursuant to this section, at any reasonable time, with prior notice of at least three (3) business days provided to the retail account holder.

Advance notice is not required if there is reason to believe the unit poses a safety risk to the retail account holder, the premises, the utility's electrical system, or the utility's personnel.
(G) For the purpose of determining the amount of solar rebate, the solar electric system wattage rating shall be established as the direct current wattage rating provided by the original manufacturer with respect to standard test conditions.
(H) Standard Offer Contracts.
1. The electric utility may at the utility's discretion, offer a standard contract for the purchase of S-RECs created by the customer's installed solar electric system.
2. If the electric utility chooses to offer a standard offer contract, the electric utility shall file tariff sheets detailing the provision of the contract no later than November 1 each year for the following compliance year. Workpapers documenting the purchase prices shall be submitted with the tariff filing.
3. No customer is required by this rule to sell any or all S-RECs to the electric utility.
(I) Electric utilities that have purchased SRECs under a one (1)-time lump sum payment in accordance with subsection (H) of this section may continue to account for purchased S-RECs even if the owner of the solar electric system ceases to operate the system or the system is decertified as a renewable energy resource. S-RECs originated under this subsection shall only be utilized by the original purchasing utility for compliance with this rule. S-RECs originated under this subsection shall not be sold or traded.
(J) Electric utilities that have purchased SRECs under a one (1)-time lump sum payment shall utilize the associated S-RECs in equal annual amounts over the lifetime of the purchase agreement.
(K) The electric utility shall provide a rebate offer for solar rebates within thirty (30) days of application and shall provide the solar rebate payment to qualified retail account holders within thirty (30) days of verification that the solar electric system is fully operational. Applicants who have received a solar rebate offer shall have up to twelve (12) months from the date of receipt of a rebate offer to demonstrate full operation of their proposed solar electric system. Full operation means the purchase and installation on the retail account holder's premises of all major system components of the on-site solar electric system and production of rated electrical generation. If full operation is not achieved within six (6) months of acceptance of the Standard Offer Contract or rebate offer, in order to keep eligibility for the rebate offer and/or the Standard Offer Contract, the applicant shall file a report with the electric utility demonstrating substantial project progress and indicating continued interest in the rebate. The six (6)-month report shall include proof of purchase of the majority of the solar electric system components, partial system construction, and building permit if required by the jurisdictional authority. Customers who do not demonstrate substantial progress within six (6) months of receipt of the rebate offer, or achieve full operation within one (1) year of receipt of rebate offer, will be required to reapply for any solar rebate.
(L) If the solar rebate program for an electric utility causes the utility to meet or exceed the retail rate impact limits of section (5) of this rule, the solar rebates shall be paid on a first-come, first-served basis, as determined by the solar system operational date. Any solar rebate applications that are not honored in a particular calendar year due to the requirements of this subsection shall be the first applications considered in the following calendar year.
(5) Retail Rate Impact.

Rate Cap Proposals

The following are two rate impact cap proposals. The first is a proposal establishing a rate cap of 1% on the costs incurred to comply with the renewable energy standard that is based on an electric utility's most recently approved revenue requirement. The second is the proposal put forth by Wind-Solar Advocates at the December 7th meeting, based on a rate cap of 1% of the net present value of an electric utility's projected revenue requirement in its most recent IRP.

Proposal Option 1: Based on 1% of Current Revenue Requirement

(5) Retail Rate Impact.
(A) ~~The retail rate impact, as calculated in subsection (5)(B), may not exceed one percent (1%) for prudent costs of renewable energy resources directly attributable to RES compliance. The retail rate impact shall be calculated on an incremental basis for each planning year that includes the addition of renewable generation directly attributable to RES compliance through procurement or development of renewable energy resources, averaged over the succeeding ten (10) year period, and shall exclude renewable energy~~

resources owned or under contract prior to the effective date of this rule.

(5)(A) A retail rate impact cap is established under which an electric utility shall not be required to incur annual costs in excess of one percent of its previous year's revenue requirements as established by the Commission to comply with the requirement in each RES requirement period. The retail rate impact cap shall be recalculated for each of the RES requirement periods set out in subsections (2)(C) and (2)(D) of this rule.

(B) The RES retail rate impact shall be determined by subtracting the total retail revenue requirement incorporating 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. The non-renewable generation and purchased power portfolio shall be determined by adding to the utility's existing generation and purchased power resource portfolio additional non-renewable resources sufficient to meet the utility's needs on a least-cost basis for the next ten (10) years. The RES-compliant portfolio shall be determined by adding to the utility's existing generation and purchased power resource portfolio an amount of renewable resources sufficient to achieve the standard set forth in section (2) of this rule and an amount of least-cost non-renewable resources, the combination of which is sufficient to meet the utility's needs for the next ten (10) years. These renewable energy resource additions will utilize the most recent electric utility resource planning analysis. These comparisons will be conducted utilizing projections of the incremental revenue requirement for new renewable energy resources, less the avoided cost of fuel not purchased for nonrenewable energy resources due to the addition of renewable energy resources. In addition, the projected impact on revenue requirements by non-renewable energy resources shall be increased by the expected value of greenhouse gas emissions compliance costs, assuming that such costs are made at the expected value of the cost per ton of greenhouse gas emissions allowances, cost per ton of a greenhouse gas emissions tax (e.g., a carbon tax), or the cost per ton of greenhouse gas emissions reductions for any greenhouse gas emission reduction technology that is applicable to the utility's generation portfolio, whichever is lower. Calculations of the expected value of costs associated with greenhouse gas emissions shall be derived by applying the probability of the occurrence of future greenhouse gas regulations to expected level(s) of costs per ton associated with those regulations over the next ten (10) years. Any variables utilized in the modeling shall be consistent with values established in prior rate proceedings, electric utility resource planning filings, or RES compliance plans, unless specific justification is provided for deviations. The comparison of the rate impact of renewable and non-renewable energy resources shall be conducted only when the electric utility proposes to add incremental renewable energy resource generation directly attributable to RES compliance through the procurement or development of renewable energy resources.

(B) The annual costs referred to in subsection (5) (A) shall be determined by deducting from the annual RES compliance costs the savings from avoided energy at load-weighted market rates projected over the term of the procurement period, the avoided cost of fuel not purchased for nonrenewable energy resources due to the addition of renewable energy resources, the value of an expiring REC power purchase agreement, the capacity value of the renewable energy resources, the avoided costs of greenhouse gas emissions and other emissions regulations and compliance and other environmental compliance costs projected over the term of the procurement. Annual costs shall not include RES compliance costs incurred to satisfy any prior RES requirement period.

(C) Rebates made during any calendar year in accordance with section (4) of this rule shall be included in the cost of generation from renewable energy resources.

(D) For purposes of the determination in accordance with subsection (B) of this section, if the revenue requirement including the RES-compliant resource mix, averaged over the succeeding ten (10)-year period, exceeds the revenue requirement that includes the non-renewable resource mix by more than one percent (1%), the utility shall adjust downward the proportion of renewable resources so that the average annual revenue requirement differential does not exceed one percent (1%). In making this adjustment, the solar requirement shall be in accordance with subsection (2)(F) of this rule. Prudently incurred costs to comply with the RES standard, and passing this rate impact test, may be recovered in accordance with section (6) of this rule or through a rate proceeding outside or in a general rate case.

(E) Costs or benefits attributed to compliance with a federal renewable energy standard or portfolio requirement shall be considered as part of compliance with the Missouri RES if they would otherwise qualify under the Missouri RES without regard to the federal requirements.

Proposal Option 2: Based on NPV of IRP-Based Forward –Looking Revenue Requirment

(A) The retail rate impact, as calculated in subsection (5)(B), may not exceed one percent (1%) for prudent costs of renewable energy resources directly attributable to RES

~~compliance. The retail rate impact shall be calculated on an incremental basis for each planning year that includes the addition of renewable generation directly attributable to RES compliance through procurement or development of renewable energy resources, averaged over the succeeding ten (10)-year period, and shall exclude renewable energy resources owned or under contract prior to the effective date of this rule.~~

5(A) The cost of an electric utility's investment in renewable energy resources to comply with the portfolio requirements of this chapter shall not exceed 1% of the net present value of the electric utility's projected revenue requirement for the twenty-year period found in the electric utility's most recent integrated resource plan filing with the Commission. The cost of compliance shall include savings from:

1) Avoided energy;

2) Avoided capital investments including but not limited to investments for new generation and environmental retrofit technology; and

3) Any other economic benefits resulting from the purchase of renewable energy resources including but not limited to emissions reductions from the avoided energy transmission and production, peak energy price suppression, and avoided transmission upgrades provided due to distributed generation.

~~(B) The RES retail rate impact shall be determined by subtracting the total retail revenue requirement incorporating 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. The non-renewable generation and purchased power portfolio shall be determined by adding to the utility's existing generation and purchased power resource portfolio additional non-renewable resources sufficient to meet the utility's needs on a least-cost basis for the next ten (10) years. The RES-compliant portfolio shall be determined by adding to the utility's existing generation and purchased power resource portfolio an amount of renewable resources sufficient to achieve the standard set forth in section (2) of this rule and an amount of least-cost non-renewable resources, the combination of which is sufficient to meet the utility's needs for the next ten (10) years. These renewable energy resource additions will utilize the most recent electric utility resource planning analysis. These comparisons will be conducted utilizing projections of the incremental revenue requirement for new renewable energy resources, less the avoided cost of fuel not purchased for nonrenewable energy resources due to the addition of renewable energy resources. In addition, the projected impact on revenue requirements by non-renewable energy resources shall be increased by the expected value of greenhouse gas emissions compliance costs, assuming that such costs are made at the expected value of the cost per ton of greenhouse gas emissions allowances, cost per ton of a greenhouse gas emissions tax (e.g., a carbon tax), or the cost per ton of greenhouse gas emissions reductions for any greenhouse gas emission reduction technology that is applicable to the utility's generation portfolio, whichever is lower. Calculations of the expected value of costs associated with greenhouse gas emissions shall be derived by applying the probability of the occurrence of future greenhouse gas regulations to expected level(s) of costs per ton associated with those regulations over the next ten (10) years. Any variables utilized in the modeling shall be consistent with values established in prior rate proceedings, electric utility resource planning filings, or RES compliance plans, unless specific justification is provided for deviations. The comparison of the rate impact of renewable and non-renewable energy resources shall be conducted only when the electric utility proposes to add incremental renewable energy resource generation directly attributable to RES compliance through the procurement or development of renewable energy resources.~~

(B) Each electric utility's integrated resource plan filing shall include anticipated plausible increases and decreases to the revenue requirement over the plan's twenty-year period for new and retired non-renewable generation, projected fuel costs, environmental upgrades, environmental regulation compliance including carbon emission restrictions and EPA regulations, and the cost required to provide for reasonable mitigation of such risks for ratepayers. Each electric utility shall analyze such factors, and if such electric utility determines that its generation needs can be cost effectively met with renewable energy resource generation under the integrated resource analysis, the cost of such new generation shall be counted in the calculation of the one percent rate cap. If the utility determines that non-renewable energy resource generation is more cost effective than renewable energy resource generation, the utility shall be required to demonstrate such determination to the Commission.

(C) Rebates made during any calendar year in accordance with section (4) of this rule shall be included in the cost of generation from renewable energy resources.

~~(D) For purposes of the determination in accordance with subsection (B) of this section, if the revenue requirement including the RES-compliant resource mix, averaged over the succeeding ten (10)-year period, exceeds the revenue requirement that includes the non-renewable resource mix by more than one percent (1%), the utility shall adjust downward the proportion of renewable resources so that the average annual revenue requirement differential does not exceed one percent (1%). In making this adjustment, the solar requirement shall be in accordance with subsection (2)(F) of this rule. Prudently incurred costs to comply with the RES standard, and passing this rate impact test, may be recovered in accordance with section (6) of this rule or through a rate proceeding outside or in a general rate case.~~

(E) Costs or benefits attributed to compliance with a federal renewable energy standard or portfolio requirement shall be considered as part of compliance with the Missouri RES if they would otherwise qualify under the Missouri RES without regard to the federal requirements.

* The sections, subsections and paragraphs set out above which do not include either additions or deletions are shown to provide the context to the proposals which are shown in red either as insertions or deletions. Further, the sections which are not shown in this proposal should not be considered to be deletions, simply omitted for efficiency in review.

** This proposal only contains insertions and deletions which are necessary to convey the main points of the proposal and if any portion thereof were to be adopted it would be required that the remainder of the rule be revised in such away as to be consistent with the adopted provisions.

*** A cover letter accompanied this filing.