Exhibit No.:	
Issues:	RESRAM Benefits
Witness:	Patrick J. Wilson
Sponsoring Party:	Renew Missouri
Type of Exhibit:	Rebuttal Testimony
Case No.:	EO-2014-0151
Date Testimony Prepared:	November 18, 2014

MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. EO-2014-0151

REBUTTAL TESTIMONY

OF

PATRICK J. WILSON

ON

BEHALF OF

RENEW MISSOURI

November, 2014

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FILE NO. EO-2014-0151

Q. Please state your name and business address.

A. My name is Patrick James (PJ) Wilson. My business address is 910 E. Broadway, Ste. 205, Columbia, MO 65201.

Q. Please state the name of your employer and your job title?

A. I am the Director of Earth Island Institute d/b/a Renew Missouri ("Renew Missouri").

Q. Please describe your educational background and employment experience.

A. I obtained a Bachelor of Science degree in Civil Engineering from the University of Southern California in August of 2001. I served in the Peace Corps as a water & sanitation engineer from 2003-2005. I also have a background in solar energy: I worked at the Solar Living Institute in 2005. In addition, I worked as a solar installer, designer, and salesperson for Cromwell Environmental in 2006, and for Ozarks Energy Services in 2007. From 2007-2009, I served as the Vice President of the Heartland Renewable Energy Society, the local chapter of the American Solar Energy Society.

From 2008 to present, I have served as the Director of Renew Missouri, a nonprofit energy policy group based in Columbia, MO. Renew Missouri's mission is to transform Missouri into a leading state in renewable energy & energy efficiency by 2016. In my role as Director with Renew Missouri, I have been instrumental in the drafting and passing of several energy policies for the state, including: the Net Metering and Easy Connection Act in 2007, and the Renewable Energy Standard (RES, or Proposition C) in 2008. The latter – passed by ballot initiative by 66%

of Missouri voters – is the foundation for the Renewable Energy Standard Rate Adjustment Mechanism (RESRAM) concept upon which this proceeding is based. During the Public Service Commission's rulemaking for the RES, I participated in all workshops and discussions regarding the rule's creation, and I share partial responsibility for Section (6) which establishes the RESRAM procedures and specifications.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my rebuttal testimony is to respond to KCP&L-Greater Missouri Operations Company's ("GMO" or "the Company") application for authority to establish a Renewable Energy Standard Rate Adjustment Mechanism ("RESRAM"), and to address the issues listed in paragraph 6 of the Non-Unanimous Partial Stipulation and Agreement filed in this case on October 20, 2014.

Q. Please summarize your findings and recommendations.

A. The first part of my testimony identifies how KCP&L-GMO's RESRAM application fails to comply with the requirements of the RESRAM, and explains how Section 393.1030, RSMo and 4 CSR 240-20.100(6) require a utility to calculate and report all economic benefits associated with the RES costs proposed for recovery through the RESRAM.

The second part of my testimony provides information on what types of benefits should be accounted for in this case, and summarizes a particular approach the Company could take to quantify all existing benefits.

The third and final part of my testimony addresses the relief Renew Missouri is requesting from the Commission, and includes a recommendation for how the Commission should approach RES benefits in the RESRAM going forward, both in future rate proceedings resulting from this case and in future RESRAM proceedings.

Q. What action is Renew Missouri seeking from the Commission in this case?

A. Renew Missouri requests the Commission find that KCP&L-GMO's RESRAM filing fails to meet the requirements of 4 CSR 240-20.100(6) by making no effort to quantify the benefits associated with its RES costs and by not demonstrating how such benefits will be passed-through to customers. In so finding, the Commission should order KCP&L-GMO to:

1) fully account for the benefits that result from the Company's expenses related to solar rebates and the St. Joseph Landfill Gas facility, which are proposed for recovery in this case;

2) account for the mechanisms and demonstrate in what amounts these benefits will be passed-through to customers; and

3) include the true cost of the RESRAM on all customer bills, reflecting the apportioned costs of the RESRAM net of the existing benefits associated with those apportioned costs.

For a more thorough summary, please refer to Section III of my testimony.

I. KCP&L-GMO Has Not Satisfied the Law's Requirement to Calculate and Report all Costs and Benefits in the RESRAM

Q. As one of the principal individuals involved in the drafting of the RES and the development of the Commission's rules at 4 CSR 240-20.100, what is your understanding of the purpose of the "RESRAM?"

A. As the statute makes clear, the RESRAM is meant for dual purposes: 1) to allow recovery of RES costs outside the context of a normal rate proceeding, and 2) to pass through to customers any benefits associated with those RES costs. To accomplish both of these purposes, a utility must provide adequate accounting, documentation, and quantification for both costs and benefits. As my testimony addresses, KCP&L-GMO's RESRAM filing fails to account for benefits or demonstrate how they will be passed through.

Q. What is the basis for considering "benefits" in the RESRAM?

A. The concept of "benefits" in the RESRAM is rooted directly in the language of the RES statute at Section 393.1030.2, RSMo: (emphasis added)

> The commission … shall make whatever rules are necessary to enforce the renewable energy standard. Such rules shall include: … (4) Provision for recovery outside the context of a regular rate case of prudently incurred costs and *the pass-through of benefits to customers of any savings achieved* by an electrical corporation in meeting the requirements of this section.

The above provision is the basis for Section (6) of the Commission's rule at 4 CSR 240-20.100, which also requires the Commission, through its rules, to include provisions for specific "pass-through of benefits." In fact, Section (6) mentions "benefits" on 13 separate occasions.[1] Based on the plain language of the statute and my experience during the rule's formation, passing on savings benefits to customers is an integral aspect of the RESRAM, not merely an afterthought as KCP&L-GMO treats it.

The primary reason for considering benefits in the RESRAM is to achieve equity between the utility and its customers. If a utility realizes economic benefits from its renewable investments, then the utility stands to over-collect unless those benefits are passed through to customers. The RESRAM is the mechanism through which this pass-through occurs. Furthermore, the RESRAM serves the goal of economic efficiency. Economic efficiency is achieved when the Commission and all interested stakeholders have accurate and transparent

[1] 4 CSR 240-20.100(6), title of section: "Cost Recovery and *Pass-through of Benefits*." (emphasis added);
4 CSR 240-20.100(6), 1st paragraph: "pass-through of benefits" mentioned alongside cost-recovery, and RESRAM revenue requirement defined as being net of "any new RES compliance benefits;"
4 CSR 240-20.100(6)(A)1.: "the pass-through of benefits has no single-year cap or limit;"
4 CSR 240-20.100(6)(A).11: Commission may modify RESRAM in future rate proceeding, including offsetting RESRAM revenue requirement to account for benefits;
4 CSR 240-20.100(6)(A)13: requires tracking of over or under pass-through of benefits after RESRAM reset following a rate case;
4 CSR 240-20.100(6)(A)14: requires reconciling of benefits pass-through following RESRAM being reflected in utility's base rates.

information regarding the true cost impacts involved. Without a full accounting of all costs and benefits, it is impossible to know the true cost impacts of a particular renewable investment, and thus impossible to determine whether equity or economic efficiency have been achieved.

Q. How do Section 393.1030.2(4), RSMo and 4 CSR 240-20.100(6) require a utility to calculate and report the benefits associated with the RES costs it seeks to recover through the RESRAM?

A. A utility bears the burden of proving that any proposed rate increase is just and reasonable. This burden is spelled out quite clearly by Section 393.150.2, RSMo: "At any hearing involving a rate sought to be increased, the burden of proof to show that the increased rate or proposed increased rate is just and reasonable shall be upon the… electrical corporation…." Furthermore, the Public Service Commission's website states the following on a page dedicated to explaining the ratemaking process: "[t]he utility company has the burden of proof to show that its request is reasonable."[2]

The only way for a utility to meet this burden when seeking rate recovery through a RESRAM is to fully quantify all of its prudently-incurred costs *and all of the associated benefits received* as a result of those investments. This conclusion relies on a basic truism: in order to pass on savings to customers through a rate adjustment mechanism, one must first know what those savings are. It is insufficient to simply claim – as the Company does – that an unknown amount of benefits will be passed on elsewhere, just as it would be insufficient to propose to recover a certain level of costs without any documentation, calculation, or effort to prove the fact and prudency of such costs. In order for the language of Section (6) to have any meaning, a utility must calculate and disclose all existing benefits, as well as demonstrate how those benefits

[2] http://psc.mo.gov/General/Ratemaking_Process

will be passed through to customers. As W. Edwards Deming once said, "In God we trust, all others must bring data."

Q. Has the Company met its burden of quantifying the benefits associated with the costs it proposes to recover through the RESRAM?

A. No. To my knowledge, the Company has performed no analysis of the benefits to the utility or its ratepayers associated with installed distributed solar energy capacity and the St. Joseph Landfill Gas Plant in its service territory.

Q. Does the Company explain why it did not assess these benefits?

A. Yes. In response to Comments filed by Renew Missouri that included a list of financial benefits not quantified by the Company, the Company sets out a list of reasons why these benefits or avoided costs were not characterized, quantified, or included. These reasons include that the benefits: 1) "are not readily quantifiable," and 2) "may not exist at all depending on the characteristics of the specific solar installation."[3]

The Company specifically argues that customer-owned solar systems produce no capacity benefits "because 1) the Southwest Power Pool gives no credit to the presence of customer-installed solar installations in assessing capacity needs, and 2) peak demand on GMO's system occurs later in the day than peak generation by customer-installed solar units."[4]

Q. Does the Company provide any data, analysis, or other evidence to support its position that customer-owned solar systems produce no net benefits?

A. No.

Q. Does the Company provide evidence of the extent to which customer-owned solar systems can or do avoid rate increases?

[3] Company's Reply to Staff Recommendation, OPC Comments, RENEW Missouri Comments, and OPC Reply to Staff and RENEW Missouri, at pages 7-8.
[4] Id.

A. No.

Q. Did the Company provide evidence of a tracking account for benefits associated with customer-owned solar systems to be addressed in future rate cases?

A. No.

Q. Do you agree that the benefits of solar are "not readily quantifiable?"

A. No. A growing body of reports and studies demonstrate clear, proven, and readily available methods for quantifying the benefits of distributed solar generation and other renewable resources. I have attached as Appendix A an analysis published by the Rocky Mountain Institute, entitled "A Review of Solar PV Benefit & Cost Studies," which addresses some of these studies. Several more studies have emerged since the RMI analysis was published.

Q. Have any of these studies quantified the value of distributed solar in Missouri?

A. Though a strong body of research exists on this topic nationally, I have found no studies based on Missouri data. Indeed, various studies conducted throughout the country could be easily adapted to fit Missouri's unique circumstances. Appendix A characterizes more than a dozen "value of solar" and other studies addressing distributed solar PV costs and benefits. Utilities and commissions in several states have undertaken a quantification of solar benefits, even without the benefit of a specific statutory directive such as that in the RES statute. I address a number of these studies in Part II of my testimony.

Q. Should the Commission accept the Company's assertion that these benefits "may not exist," especially in the absence of any data or analysis?

A. No. I think this would constitute a clear failure of proof and would be inconsistent with Commission law and practice. In the face of the studies cited in Appendix A, the Commission should not accept the unsupported assertion by the Company regarding benefits or avoided costs. To do so would not only be a failure to hold the Company to its burden of proof, but would run

the risk of the Company retaining economic benefits without properly passing them through to customers. In order to give effect to all the language of Section (6), in order to protect customers, and in order to advance economic efficiency, the Commission should order KCP&L to calculate all existing and quantifiable benefits and to demonstrate how such benefits are passed through to customers.

KCP&L-GMO may very well dispute specific assumptions or methodologies for assessing the value of various economic benefits of solar, but to deny their existence altogether flies in the face overwhelming evidence to the contrary.

Q. Has the Company met its burden of demonstrating how any existing benefits will be passed-through to customers?

A. No. The Company has stated: "to the extent any such 'actual' financial benefits do exist, they are flowed through to the benefit of customers through the operation of presently existing mechanisms outside the RESRAM."[5] Furthermore, the Non-Unanimous Partial Stipulation and Agreement reiterates: "GMO argues that, if certain benefits (including avoided costs) do exist, they are currently being flowed through GMO's FAC [fuel adjustment clause] or will otherwise flow through to customers."[6]

Q. Should the Commission take the Company at its word that any benefits or avoided costs that do exist will be "flowed through" in non-RESRAM proceedings?

A. Missouri law does not allow the Commission to approve rates without satisfactory proof. Without specific demonstration from the utility regarding how and in what amount benefits will be passed-through, the Commission cannot determine whether it must limit the Company's RESRAM revenue requirement, or whether the RESRAM rate should be approved at all.

[5] Id.
[6] "Non-Unanimous Partial Stipulation and Agreement." File No. EO-2014-0151, at ¶ 4.b).

Section (6) clearly envisions tracking the exact amounts of costs and benefits through the RESRAM. It may well be the case that some or all of the associated benefits will be passed on to customers, either through the Company's FAC or elsewhere. However, without some level of calculation and disclosure by the Company, the Commission has no evidence of the quantity of these benefits, no assurance that customers are indeed being credited for these benefits, and no record on which to base a lawful final order.

Q. Do you object to KCP&L-GMO passing through benefits in a way other than as specified by the rule, such as through a fuel adjustment clause?

A. I have no inherent objection to the Company passing through benefits to customers outside of the RESRAM. However, if benefits are "flowed through" elsewhere, they must be fully quantified and accounted for in the RESRAM proceeding.

As the first paragraph of Section (6) clarifies, benefits must be passed through to ratepayers by "netting out" benefits against costs: (emphasis added)

> In all RERAM applications, the increase in electric utility revenue requirements shall be calculated as the amount of additional RES compliance costs incurred since the electric utility's last RESRAM application or general rate proceeding, *net of* any reduction in RES compliance costs included in the electric utility's prior RESRAM application or general rate case, and *any new RES compliance benefits*.

In the present case, KCP&L-GMO has requested a variance in order to pass through benefits in a later rate proceeding outside of the RESRAM. Renew Missouri saw no need to object to this variance, if that is the way the Company prefers to account for pass-through of benefits. However, without this variance for the *mode* for passing through the benefits, KCP&L-GMO would have been required to make a specific accounting for all benefits and ultimately net them

out against its total RESRAM revenue requirement.[7] The existence of this variance as to the mode for pass-through does not relieve the Company of its obligation to account for all benefits here in the RESRAM; it merely changes the mechanism through which the pass-through occurs.

II. Benefits Appropriate for Consideration in this Case, and How to Quantify Them.

Q. What is your understanding of the word "benefits" as used in Section 393.1030.2(4) and 4 CSR 240-20.100(6) with respect to the RESRAM?

A. From my perspective as one of the drafters of the RES statute, "benefits" in the context of Section 393.1030.2(4), RSMo and 4 CSR 240-20.100(6) means any financial or monetary savings that accrue to the utility because of the unique characteristics of the resource. In the simplest sense, "benefits" in the RESRAM represent economic value, either in the form of revenues or savings, that can be quantified in dollars and cents, and that the utility realizes as a result of making investments in renewable energy. The guiding principle when considering the benefits of renewable energy investments is to ensure that the full and true economic value of such investments is reflected in both the utility's cost recovery and customers' bills.

Q. Where do the benefits that must be accounted for in this case come from?

In this case, the benefits that must be accounted for stem from KCP&L-GMO's investments in the form of: 1) solar rebates paid to customers installing distributed solar PV systems, and 2) costs related to the St. Joseph Landfill Gas Plant. Because solar rebate expenses represent the vast majority of these investments, my testimony addresses the types of benefits, savings, and/or avoided costs that result from the addition of distributed solar energy. Many of these same benefits may result from landfill gas-fired generation as well.

[7] See 4 CSR 240-20.100(6), 1st paragraph.

Q. What benefits, savings, and/or avoided costs associated with solar rebate expenses should be considered in this case?

A. The following categories of values should be considered in order to calculate the full benefit and avoided cost of adding solar generation in KCP&L-GMO's:

1) Avoided Energy Cost – this is the utility's energy cost that is avoided by solar electric generation. There is a natural coincidence of solar output with peak demand, especially in the summer when air conditioning load is highest. Avoided energy cost should be calculated based on the difference between long-term production costs with the solar generation, compared to the production costs without the solar generation.

2) Avoided System Loss Cost – this consists of line-loss savings that accrue where solar displaces generation from remote, central station plants. This should be calculated based on marginal losses, which should be load-weighted and distinguished between distribution and transmission losses;

3) Avoided Generation Capacity Cost – this is the cost of generation that is deferred or avoided due to distributed solar generation. This should be calculated using Effective Load Carrying Capability or similar analysis;

4) Avoided Transmission and Distribution Capacity Cost – this consists of the cost of transmission or distribution avoided due to distributed solar generation, after netting the utility's costs to integrate solar resources. This calculation should utilize the approach described for generation capacity, and should not be limited to large planning increments;

5) Avoided Financial Cost / Fuel Price Hedge – these are the utility's costs associated with fuel price volatility that are avoided due to the addition of distributed solar generation.

6) Avoided Financial Cost / Market Price Response – these are the costs a utility avoids by purchasing from a solar generator due to decreases in its average price of fuel;

7) Avoided Environmental Costs – these are costs that a utility avoids by purchasing from a solar generator, including avoided costs related to environmental regulation not already reflected in energy costs (federal pollutant emissions limitations, coal ash disposal costs, etc.).

It is worth noting that a typical utility will have assembled most, if not all, of the technology-specific data necessary for calculating full avoided costs for solar in the course of developing resource plans and fuel charge updates. Where utility-specific data is not readily available, analysts may develop suitable estimation methods or use third-party data.

Q. Aren't many of these benefits found with any generation investment? Why should they be considered when evaluating the benefits of customer-owned solar generation?

A. First, as explained above the RES law specifically requires this accounting. Second, it is also good economic practice. When the Company proposes a new gas plant, for example, it weighs the costs and benefits of that proposal against alternatives – the energy and capacity costs, fuel costs, construction costs, line losses, upgrades needed to the transmission system, hedging benefits of fuel diversity, and environmental costs – to justify the cost of the plant on ratepayers. These same factors must be evaluated when determining what costs can appropriately be recovered from customers, taking account of the unique characteristics that solar electricity places on the grid. Comprehensively assessing these benefits, and the embedded resource costs that they help the utility avoid, is necessary in order to make more informed and economically-efficient resource planning and deployment decisions. That is, accounting for these benefits is required in order to make the assertion that any benefits are, in fact, flowed through to customers in other ways, such as through avoided rate increases.

Q. Are there any recent precedents in other states to support adopting this kind of analysis that consider the benefits and costs you have outlined?

A. Yes. In 2013, the Minnesota Department of Commerce developed a methodology for valuing solar. After a widely-praised, transparent stakeholder process that engaged dozens of utilities, businesses, government representatives, advocates and concerned citizens, the Minnesota Department of Commerce published its solar valuation methodology on January 30, 2014. The methodology was reviewed and approved by the Minnesota Public Utilities Commission and a final version of the methodology was published on April 1, 2014. This final methodology is attached as Appendix B.

Q. What are the major features of the Minnesota Value of Solar Methodology?

A. Key aspects of the methodology include:

1) A standard solar photovoltaic rating convention.

2) Methods for creating an hourly solar production time-series, representing the aggregate output of all solar systems in the service territory per unit capacity corresponding to the output of a solar resource on the margin;

3) Requirements for calculating the electricity losses of the transmission and distribution systems;

4) Methods for performing technical calculations for avoided energy, effective generation capacity and effective distribution capacity;

5) Economic methods for calculating each value component (e.g., avoided fuel cost, capacity cost, etc.); and

6) Requirements for summarizing input data and final calculations in order to facilitate commission and stakeholder review.

Figure 3 on pg. 43 of Appendix B represents an example Value of Solar Levelized Calculation Chart (see below). The Minnesota Methodology can be used to arrive at a final cents-per-kWh value after determining individual values for such avoided costs as fuel, both

fixed and variable plant O&M, generation capacity, reserve capacity, transmission capacity, distribution capacity, environmental, and voltage control. The methodology also allows consideration of solar integration costs to the utility (i.e. the costs of integrating solar onto the grid) as an offset to avoided costs.

Figure 3. (EXAMPLE) VOS Levelized Calculation Chart (Required).

25 Year Levelized Value	Economic Value ($/kWh)	Load Match (No Losses) (%)	Distributed Loss Savings (%)	Distributed PV Value ($/kWh)
Avoided Fuel Cost	$0.056		8%	$0.061
Avoided Plant O&M - Fixed	$0.003	40%	9%	$0.001
Avoided Plant O&M - Variable	$0.001		8%	$0.001
Avoided Gen Capacity Cost	$0.048	40%	9%	$0.021
Avoided Reserve Capacity Cost	$0.007	40%	9%	$0.003
Avoided Trans. Capacity Cost	$0.018	40%	9%	$0.008
Avoided Dist. Capacity Cost	$0.008	30%	5%	$0.003
Avoided Environmental Cost	$0.027		8%	$0.029
Avoided Voltage Control Cost				
Solar Integration Cost				
				$0.127

Q. What other studies exist on this topic?

A. The RMI study (Appendix A) includes a number of other similar "value of solar" studies, which arrive at values ranging from $0.35 per kWh (Arizona, 2013) to $0.34 per kWh (California, 2005). Among the more prominent researchers cited is Richard Perez. Richard Perez led a team that published a study titled "The Value of Distributed Solar Electric Generation to New Jersey and Pennsylvania."[8] A copy of the paper is attached as Appendix C. That study modeled the value of a 15% peak load penetration (much higher than Missouri) of distributed solar electric generation at seven locations in the region. The model addressed the following

[8] "The Value of Distributed Solar Electric Generation to New Jersey and Pennsylvania," Clean Power Research, November 2012. ("CPR NJ & PA Study 2012") Available at: http://mseia.net/site/wp-content/uploads/2012/05/MSEIA-Final-Benefits-of-Solar-Report-2012-11-01.pdf

values: Fuel Cost Savings; O&M Cost Savings; Security Enhancement Value; Long Term Societal Value; Fuel Price Hedge Value; Transmission and Distribution Capacity Value; Market Price Reduction; Environmental Value; Economic Development Value; Solar Penetration Costs; and Generation Capacity Value.

The study found that the total value of distributed solar ranged from $0.256 to $0.318 per kWh. A copy of the paper is attached at Appendix C and is offered as an indicator of how a comprehensive distributed VOS study can be conducted.

In Part III of my testimony, I offer my specific recommendation for how the Company may approach quantifying the benefits of distributed solar generation.

Q. Do federal regulations relating to calculation of avoided costs provide useful guidance that the Company can rely upon in complying with 393.1030 RSMo and 4 CRS 240(6)?"

A. Yes. The Federal Energy Regulatory Commission (FERC) provides for consideration of a number of kinds of avoided costs in setting the rates for power purchases from qualifying facilities. FERC only requires that utilities pay the avoided cost for power purchases, although utilities and customers can independently negotiate higher rates.[9] This avoided cost rate must, to the extent practicable, take into account a range of avoided costs that illustrate the kinds of benefits that Company should address in establishing a RESRAM. According to the Code of Federal Regulations, these include:

(2) The availability of capacity or energy from a qualifying facility during the system daily and seasonal peak periods, including:

(i) The ability of the utility to dispatch the qualifying facility;

[9] 18 C.F.R. § 292.304(a)(2).

(ii) The expected or demonstrated reliability of the qualifying facility;

(iii) The terms of any contract or other legally enforceable obligation, including the duration of the obligation, termination notice requirement and sanctions for non-compliance;

(iv) The extent to which scheduled outages of the qualifying facility can be usefully coordinated with scheduled outages of the utility's facilities;

(v) The usefulness of energy and capacity supplied from a qualifying facility during system emergencies, including its ability to separate its load from its generation;

(vi) The individual and aggregate value of energy and capacity from qualifying facilities on the electric utility's system; and

(vii) The smaller capacity increments and the shorter lead times available with additions of capacity from qualifying facilities; and

(3) The relationship of the availability of energy or capacity from the qualifying facility as derived in paragraph (e)(2) of this section, to the ability of the electric utility to avoid costs, including the deferral of capacity additions and the reduction of fossil fuel use; and

(4) The costs or savings resulting from variations in line losses from those that would have existed in the absence of purchases from a qualifying facility, if the purchasing electric utility generated an equivalent amount of energy itself or purchased an equivalent amount of electric energy or capacity.[10]

III. Relief Requested and Recommended Approach for Quantifying Benefits

Q. Please restate the relief Renew Missouri is seeking in this case.

[10] 18 C.F.R. § 292.304(e).

A. As I stated at the beginning of my testimony, Renew Missouri requests that the Commission find that KCP&L-GMO's RESRAM filing fails to meet the requirements of 4 CSR 240-20.100(6) because:

1) the Company has not quantified and disclosed the benefits associated with the RES costs it is seeking to recover through the RESRAM; and

2) the Company has not demonstrated how or in what amount such benefits will be passed-through to customers.

In so finding, the Commission should order KCP&L-GMO to accomplish the following tasks:

1) fully account for the benefits that result from the Company's expenses related to solar rebates and the St. Joseph Landfill Gas facility, which are proposed for recovery in this case;

2) demonstrate through which mechanisms and in what amounts these benefits will be passed-through to customers; and

3) include the true cost of the RESRAM on all customer bills, reflecting the apportioned costs of the RESRAM net the existing benefits associated with those apportioned costs.

Q. What specific methodology should KCP&L-GMO use to quantify the benefits associated with its approximately $27 million in RES costs?

A. It is the Company's legal obligation to accurately account for associated benefits and demonstrate how they will be passed-through. Therefore, it is ultimately the Company's responsibility – not that of Renew Missouri or any other party – to present the evidence and a methodology that satisfies the Commission. At a minimum, however, the Company's methodology should quantify values for the avoided costs listed in Figure 3 of the Minnesota Value of Solar methodology, attached as Appendix B. These include:

1) avoided fuel costs

2) avoided plant operation and maintenance costs (both fixed and variable);

3) avoided costs related to generation capacity, reserve capacity, transmission capacity, and distribution capacity;

4) avoided environmental costs;

5) avoided voltage control costs; and

6) solar integration costs borne by the utility.

Figure 3 from the Minnesota Value of Solar Methodology (Appendix B) shows how the gross economic value of each avoided cost component is converted into a distributed solar value. The process uses a component-specific load match factor (where applicable) and a component-specific loss savings factor. The values are then summed to yield the 25-year levelized value adjusted for inflation.

Q. How should the Company demonstrate that benefits will be passed on to customers?

A. The Commission's rule at 4 CSR 240-20.100(6) requires a utility to net benefits out against compliance costs in the context of a RESRAM proceeding (i.e. subtract benefits from the total RESRAM revenue requirement). The Company seems to prefer passing costs through the FAC, outside of the RESRAM, and the Commission appears to have granted a variance to this effect. Renew Missouri does not object to this approach, provided that benefits are fully and properly quantified and the Company can in some way verify that customers will receive all benefits. Accordingly, the Company should amend and supplement its RESRAM filing to include a summary of the expected changes to its FAC and what portion of those changes are due to the RESRAM. If the Company cannot fully quantify expected FAC changes due to the RESRAM at this time, it must at least account for how those changes will be calculated in the future.

Q. Once benefits are properly accounted for, how should the pass-through of such benefits be communicated to customers?

A. After the Company has calculated all existing benefits and demonstrated how benefits are passed through to customers, to the satisfaction of the Commission, then pass-through of benefits must somehow be reflected on customer bills. KCP&L-GMO has requested a variance to be able to include the RESRAM rate element as a kWh charge rather than a percentage of the customer's bill.[11] Renew Missouri has agreed to this variance, so long as the RESRAM rate element reflects both costs and benefits.

There are two different ways to reflect pass-through of benefits on a customer's bill as a kWh charge or credit:

1) list the total amount being charged (or credited) to the customer in a single line item, reflecting the kWh charge minus the associated kWh benefits; or

2) in two separate line items, first list the customer's kWh charge and second list the associated kWh benefits.

In either of the above methods, the customer will have an accurate picture of the true costs of renewable energy on their utility bill. If benefits are truly being passed through to customers, as KCP&L-GMO claims, the Company should have no problem disclosing to customers exactly how much its investments in renewable energy are costing and benefitting its customers.

Q. Are you proposing that KCP&L-GMO recover less than the full amount it requested to recover in this case?

[11] "Non-Unanimous Partial Stipulation and Agreement." ¶ 4.d)

A. No, not necessarily. I believe the Company should recover the full amount of $27,772,754.34,[12] but only if it first demonstrates that all existing benefits associated with such RES expenses are being passed on to customers, as the statute and RESRAM rule clearly require. The law conditions recovery on an accounting for benefits. As explained above, such accounting has not occurred in this case.

Q. If the Commission concludes that KCP&L-GMO is not passing through all existing benefits, what action should the Commission take?

A. If, as a result of this case, the Commission finds that all existing benefits are not being passed on to customers, then the Commission should (in the Company's next rate proceeding) reduce the Company's total RESRAM revenue requirement by the amount of quantified benefits that are not being passed on to customers, or make other equivalent adjustments. Such action is required in order to give effect to the first paragraph of Section (6), which requires that benefits be netted out against the utility's RESRAM revenue requirement.

Given that the Commission has already approved KCP&L-GMO's tariff, Renew Missouri is not requesting that the Commission adjust the Company's RESRAM revenue requirement in this case. However, the approval of KCP&L-GMO's tariff in this case does not restrict the Commission's ability to determine ratemaking treatment in a late proceeding. This is made explicitly clear by the language of 4 CSR 240-20.100(6)(A)11.[13]

In this case, parties to the "Non-Unanimous Partial Stipulation and Agreement" have already acceded to the fact that costs and benefits passing through the FAC must be dealt with in

[12] "Non-Unanimous Partial Stipulation and Agreement," EXHIBIT 1, Original Sheet No. 137.3.

[13] "Commission approval of proposed rate schedules, to establish or modify an RESRAM, shall in no way be binding upon the commission in determining the ratemaking treatment to be applied to RES compliance costs during a subsequent general rate proceeding when the commission may undertake to review the prudence of such costs. In the event the commission disallows, during a subsequent general rate proceeding, recovery of RES compliance costs previously in an RESRAM, or pass-through of benefits previously in an RESRAM, the electric utility shall offset its RESRAM in the future as necessary to recognize and account for any such costs or benefits.

a later case, as the Commission will not adjust the FAC outside of a general rate proceeding.[14] Accordingly, any discrepancy between existing benefits and the amount of benefits passed-through to customers should be adjusted in the Company's next rate case.

Q. Do you recommend that the Commission conduct a Value of Solar study for Missouri in this case?

A. A full Missouri Value of Solar methodology is not needed in this case. However, to assist utilities and the Commission in future RESRAM proceedings, the Commission could order Staff, OPC and other stakeholders to conduct workshop(s) to determine how to formally establish a unique Value of Solar methodology for Missouri. Such a study would not just be beneficial to RESRAM proceedings, but in a number of other proceedings and policy discussions as well. I recommend using Minnesota's Methodology as a starting point, as it is a demonstration of a comprehensive, objectively verifiable approach that can be developed when a broad range of stakeholder and expert opinions are focused on the solar valuation issue.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

[14] "Non-Unanimous Partial Stipulation and Agreement," ¶ 4a-c

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of KCP&L Greater Missouri Operations Company's Application for Authority to Establish a Renewable Energy Standard Rate Adjustment Mechanism	))))	File No. EO-2014-0151 Tariff No. YE-2014-0407

AFFIDAVIT OF PATRICK J. WILSON

STATE OF MISSOURI)
) **SS**
COUNTY OF BOONE)

Patrick J. Wilson, of lawful age, being first duly sworn on his oath, states:

1. My name is Patrick J. Wilson. I work in the City of Columbia, Missouri, and I am employed as the Director of Earth Island Institute d/b/a Renew Missouri ("Renew Missouri").

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of Renew Missouri, which I have prepared in written form for submission into evidence in this case.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge.

/s/ PJ Wilson
Patrick J. Wilson

Subscribed and sworn to me this 18 day of November, 2014

Notary Public

My commission expires: 8/17/2018

JASON M. FRIGERIO
Notary Public - Notary Seal
State of Missouri
Commissioned for Boone County
My Commission Expires: Aug. 17, 2018
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