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Witness:	Philip Fracica
Sponsoring Party:	Renew Missouri Advocates
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**MISSOURI PUBLIC SERVICE COMMISSION**

**ER-2018-0145 / ER-2018-0146**

**SURREBUTTAL TESTIMONY**

**OF**

**PHILIP FRACICA**

**ON BEHALF OF**

**RENEW MISSOURI ADVOCATES**

September 4, 2018



TABLE OF CONTENTS

<b><u>Testimony</u></b>	<b><u>Page</u></b>
Introduction	1
Low-income Community Solar Program	1
On-bill Financing	12

1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Philip A. Fracica. My business address is 409 Vandiver Drive Building  
4 5 Suite 205, Columbia, Missouri, 65202.

5 **Q. By whom and in what capacity are you employed?**

6 A. I am employed by Renew Missouri Advocates (DBA Renew Missouri) as a Policy  
7 Organizer.

8 **Q. Are you the same Philip Fracica who filed direct and rebuttal testimony in this  
9 case?**

10 A. Yes, in my direct testimony I testified that KCPL and GMO should offer a low-  
11 income component to their proposed Solar Subscription Programs and  
12 recommended various low-income models the companies could explore to enable  
13 low-income customers to participate in, and benefit from, renewable energy. I also  
14 described the benefits of an on-bill financing tariff for energy efficiency upgrades  
15 and testified that KCPL and GMO should explore the on-bill financing  
16 compatibility with their Customer Information System (“CIS”).

17 **II. LOW-INCOME COMMUNITY SOLAR PROGRAM**

18 **Q. What is the purpose of this portion of your testimony?**

19 A. I will respond to the criticism offered by the companies Witness Kimberly  
20 Winslow, OPC witness Geoff Marke, and DE Witness Sharlet Kroll, regarding the  
21 addition of a low-income component to the Companies’ proposed solar subscription  
22 pilot rider. I will also respond to some of the suggestions brought forth by PSC  
23 Staff Witness Claire Eubanks.

1 **Q. What criticisms did those witnesses raise in response to your direct testimony?**

2 A: First, the companies' witness Ms. Winslow objects to a low-income component  
3 because a "low income carve out does not improve the information that the pilot  
4 will provide, reduces the amount of overall help available to low income customers  
5 (because the rates are higher under the pilot program) and will make administration  
6 of the program more difficult."<sup>1</sup> Second, the other witnesses voiced concerns about  
7 using LIHEAP and WAP funding for low-income solar.

8 **Q: What is your response to the companies' position that a low-income  
9 component will not be a useful pilot and would be administratively difficult?**

10 A: The company does not fully understand my proposal. Renew Missouri is not asking  
11 for the program as originally filed to have a portion available to low-income  
12 customers. I agree with Ms. Winslow that enrollment into the "premium" program  
13 as filed by the company would only increase the energy burden these customers  
14 already face. In fact, using LIHEAP or WAP funding to allow low-income  
15 customers to participate the companies' proposal makes little sense in the near term.  
16 Rather, I propose that the companies add a modified low-income program  
17 component or a specific low-income community solar pilot. While I do agree with  
18 the company that a low-income component would add some complexity to the  
19 program I do not believe it would be inappropriate to explore ways to provide  
20 additional assistance to the company's low-income customers that face the largest

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<sup>1</sup> Rebuttal Testimony of Kimberly H. Winslow, filed July 27, p. 4.

1 energy burden<sup>2</sup>. Pursuing new or unfamiliar concepts is exactly what a pilot  
2 program should entail. In fact, the companies' own point that addressing low-  
3 income customers may pose administrative questions, highlights that a low-income  
4 pilot could address questions and provides meaningful learning opportunities. The  
5 Companies also express concern that, under their proposed design, customers pay  
6 a premium so directing funds towards the program would reduce the overall aid  
7 available to customers.

8 **Q: How can the companies offer a low-income component?**

9 A: Without repeating my direct testimony, there are a number of program models the  
10 companies could pursue as a way to include a low-income component. One of the  
11 best models to adopt based on how the company has proposed the tariff would be  
12 to look at establishing a program similar to the Colorado PVREA model that I  
13 referenced in direct testimony. In this model there is an opportunity to allow for all  
14 customers to benefit by requiring all participants except for low-income to pay a  
15 one-time upfront payment to enter into the program and to pay a recurring  
16 community solar charge. The participant then receives the estimated monthly  
17 output as a "Community Solar Credit" that was received at the retail rate similar to  
18 net metering. The credit is then subtracted from the kWh charge and the participant  
19 pays the difference, if one exists. Low-income participants did not have to pay the  
20 up-front fee nor the solar charge, but their credit is at a wholesale rate instead of

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<sup>2</sup>Fisher, Peter, et al. "Home Energy Affordability Gap." *Home Energy Affordability Gap*, Fisher, Sheehan, & Colton, 1 Apr. 2018, [homeenergyaffordabilitygap.com/03a\\_affordabilityData.html](http://homeenergyaffordabilitygap.com/03a_affordabilityData.html).

1 the retail rate. PVREA received the subsidy from energy assistance programs to  
2 cover the low-income participants' upfront payments to pay off the system as all  
3 other customer classes have done.

4 Here, the companies could apply a similar concept to their proposed model  
5 and offer a wholesale rate to low-income participants rather than the premium price.  
6 This rate would be applied at the solar block output multiplied by a wholesale rate,  
7 which would then be charged to the kWh output for the subscribed solar for the  
8 billing period. Since this rate would be at a lower rate than retail, the low-income  
9 customer would see a bill benefit. To make the companies whole under this model,  
10 a subsidy using assistance program funding would be needed to cover upfront  
11 payments to offset the solar system cost that would otherwise be recovered through  
12 a price premium. This could also include reducing the size of the solar offset to  
13 allow low-income customers to only sign up to 25% of their usage as opposed to  
14 the customer subscription level of 50%, if needed. Adding a component of this kind,  
15 focused on low-income customers, would allow the companies to explore program  
16 offerings that will facilitate community solar systems where the subscribers have  
17 the ability to realize an economic benefit without harming the companies.

18 Similarly, the companies could offer a different solar pilot with virtual net  
19 metering to represent the output in real time as opposed to estimated output. This  
20 would provide an additional learning opportunity for the companies and could  
21 include establishing community partnerships to bring down project costs as I detail  
22 later in this testimony. Other utility solar subscription program examples in  
23 Missouri have a model that charges participants a premium price. By adding a low-

1 income component to this program the companies would have an innovative pilot  
2 that could be an example for other utilities.

3 **Q: Did the Commission’s staff address objectives of the companies’ pilot program**  
4 **in its testimony?**

5 **A:** Yes, Staff witness Claire Eubank’s rebuttal testimony proposed additional learning  
6 objectives<sup>3</sup> and I support requiring the company to report on these additional  
7 objectives. One of the objectives Ms. Eubanks listed would be the participation by  
8 low and moderate-income customers. If the companies include a low-income  
9 component an additional learning objective could be to monitor the availability of  
10 assistance program subsidy dollars for a solar project. Additionally, Ms. Eubanks  
11 raised concerns that expansion of the companies’ program will lead to an increase  
12 or decrease in subscription cost while the Ameren program will only see a reduction  
13 in the subscription cost if that company expands its program. I also agree with Ms.  
14 Eubanks’ proposed modification to structure the program to allow for future  
15 economic value for participants.

16 **Q: Are these learning opportunities focused on low-income customers**  
17 **appropriate for the companies to pursue in a solar project?**

18 **A:** Yes, the regulated utilities in Missouri have recently pursued several pilot projects  
19 aimed not just at the operational aspects of solar facilities, but also how the  
20 customers interact with their electric provider. In its Commission sanctioned  
21 stipulation and agreement in EA-2016-0207, Ameren laid out several worthy  
22 objectives for implementing its voluntary solar subscription program. These

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<sup>3</sup> Rebuttal Testimony of Claire Eubanks Filed August 7 p 7.



1 Commission approved objectives included securing insights into the advantages  
2 and challenges associated with distributed generation resources, gaging how  
3 customers would react to various pricing sensitivities, evaluating the impacts on net  
4 energy metering structures, and determining the real value of increasing solar  
5 generation at the distribution level.<sup>4</sup>

6 Case No. EA-2016-0208 provides another example of Commission  
7 approved learning objectives to be gleaned from a pilot program. In that case,  
8 Ameren sought to implement a pilot program in which it would construct, install,  
9 own, operate, maintain and manage various small solar generation facilities at  
10 different locations in Ameren’s service territory. In doing so, Ameren wished to use  
11 the program as an opportunity to gain real experience with the type of facilities  
12 proposed in the program. Specifically, the pilot program would enable Ameren to  
13 “investigate, develop, and understand the requirements necessary to achieve  
14 appropriate contract terms and conditions and to learn about siting, operating, and  
15 maintaining utility-owned electrical generation facilities on property owned by its  
16 customers.”<sup>5</sup> The Commission agreed that while Ameren could observe programs  
17 implemented by other utilities, its only path to obtaining some information, such as  
18 working directly with customers to determine optimum siting locations and  
19 conditions for facility operation, was by running its own program.

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<sup>4</sup> [https://www.efis.psc.mo.gov/mpsc/ Case No EA-2016-0207 Stipulation & Agreement Appendix D](https://www.efis.psc.mo.gov/mpsc/CaseNoEA-2016-0207Stipulation%20&%20AgreementAppendixD) Filed 14 May, 2018.

<sup>5</sup> [https://www.efis.psc.mo.gov/mpsc/ Case No EA-2016-0208 Report and Order](https://www.efis.psc.mo.gov/mpsc/CaseNoEA-2016-0208ReportandOrder) p. 8. Issued 21 December, 2016.

1           In EA-2015-0256, the Commission approved GMO’s Greenwood solar  
2           facility as a pilot project. In approving the project, the Commission reasoned that  
3           the small facility would give GMO hands-on experience in “designing,  
4           constructing, and operating a solar facility with a view toward eventually building  
5           additional solar facilities.”<sup>6</sup> The Commission explained, “gaining that experience  
6           now is important, so that GMO can remain in front of the adoption curve.” A low-  
7           income community solar pilot program would additionally give the companies the  
8           opportunity to gain real experience operating a solar system in a new manner while  
9           interacting with and evaluating what steps can be taken to offer low-income  
10          customers the ability to participate in, and benefit from, renewable energy  
11          resources.

12   **Q:   Please respond to the concerns about using Low Income Home Energy**  
13   **Assistance Program (LIHEAP) and Weatherization Assistance Program**  
14   **(WAP) funding for low-income solar.**

15   A.   The concerns raised by Geoff Marke<sup>7</sup>, Sharlet Kroll<sup>8</sup>, and Kimberly Winslow<sup>9</sup>  
16   about using LIHEAP and WAP funding administration and flexibility are all valid  
17   concerns, but we can address these concerns in the coming years. Additionally, I  
18   have become aware of other funding opportunities that could provide flexibility in  
19   subsidizing a low-income component of a utility sponsored solar subscription  
20   program. Mr. Marke did not support my testimony due to the lack of flexibility and

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<sup>6</sup> <https://www.efis.psc.mo.gov/mpsc/> Case No EA-2015-0256 Report and Order p. 14. Issued 2 March, 2016.

<sup>7</sup> Rebuttal Testimony of Geoff Marke Filed July 27 p. 10-11.

<sup>8</sup> Rebuttal Testimony of Sharlet Kroll Filed July 27 p. 6.

<sup>9</sup> Rebuttal Testimony of Kimberly Winslow Filed July 27 p. 3.

1 inability to shift LIHEAP funds in the middle of a funding cycle. While this is true  
2 and valid for the current funding cycle, LIHEAP may be used for solar and could  
3 be allowed in the Missouri LIHEAP Plan for fiscal year 2019. Within the Missouri  
4 LIHEAP Plan there are options for flexibility in regards to LIHEAP weatherization  
5 measures. This includes an option for “Other” programs to be recommended and,  
6 as I have cited in my direct testimony, photovoltaic (PV) solar is an allowable  
7 measure. Furthermore, Renew Missouri and fellow low-income energy advocates  
8 submitted comments on the MO LIHEAP FY 19 Plan to request Department of  
9 Social Services to allow for the inclusion of PV solar as a measure in the FY 19  
10 Plan.

11 Next, as Ms. Kroll brought forth in her rebuttal testimony PV solar is an  
12 eligible WAP measure and Missouri’s PY2018/FY2019 WAP State Plan<sup>10</sup> includes  
13 a desire for the implementation of a pilot solar project. Ms. Kroll also highlighted  
14 that both WAP and LIHEAP federal approval processes would need to be resolved  
15 for this type of a program to be approved. As I have highlighted above,  
16 recommendations are being made through the appropriate processes to allow  
17 Missouri to use these assistance funds for solar access. While this does not  
18 guarantee this will become a reality we can work with agencies to resolve this  
19 barrier if there is enough interest from the Department of Social Services and  
20 Community Action Agencies across Missouri.

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<sup>10</sup> Energy, Missouri Division of Energy “U.S. Department of Energy WEATHERIZATION ASSISTANCE PROGRAM (WAP) STATE PLAN/MASTER FILE WORKSHEET .” *Energy.mo.gov*, Oct. 2017, [energy.mo.gov/sites/energy/files/wx-master-file-report-2019.pdf](http://energy.mo.gov/sites/energy/files/wx-master-file-report-2019.pdf).p.6.

1           Lastly, Ms. Winslow raised concerns around the flexibility of LIHEAP  
2 funds as applied to PV solar projects. Ms. Winslow is correct that these funds are  
3 not as flexible in Missouri as compared to the example from Colorado that I  
4 reference in my Direct Testimony. However, through the aforementioned efforts  
5 we can work to overcome these barriers to make a low-income component of utility  
6 community solar programs a reality. The company also raised concerns around the  
7 sustainability of a subsidy program. While LIHEAP and WAP are federally funded  
8 programs, Congress has continued to fund these programs and there is no current  
9 indication that this will change.

10 **Q. Why is it appropriate to use existing assistance program funds as a subsidy for**  
11 **a low-income solar subscription program?**

12 A. From my experience attending community listening sessions, low-income  
13 neighborhood meetings, and organizing meetings to speak directly with members  
14 of the affordable housing community, energy efficiency is not generally the first  
15 concern or need that they bring up. While it might not be the issue at top of mind it  
16 is a problem in that the only viable solution available to low-income Missourians  
17 is for property owners and homeowners to take advantage of WAP, LIHEAP, and  
18 utility sponsored energy efficiency rebate programs. By requiring interested and  
19 eligible participants to first participate in WAP or a utility sponsored EE program,  
20 we are maximizing the assistance the customer will receive by taking advantage of  
21 energy efficiency, and they would then be “rewarded” with the ability to be helped  
22 further via a low-income community solar program.

1 **Q. Does Renew Missouri support the use of Income Eligible Weatherization**  
2 **Program funds to be allocated to a low-income solar project?**

3 A. Yes, as Ms. Kroll stated in her Direct and Rebuttal Testimony, KCP&L and GMO  
4 could provide weatherization energy efficiency measures not allowed under DOE  
5 WAP guidelines. This can include allocating funds to the use of PV solar.

6 **Q. Beyond expressed interest from Community Action Agencies are there any**  
7 **local partners that have an interest in a low-income solar program?**

8 A. Yes, as one example, I have had conversations with a local affordable housing  
9 community development corporation, the Westside Housing Organization.  
10 Westside Housing Organization owns and manages affordable multifamily  
11 housing. They have interest in getting access to solar systems for their properties  
12 and I understand they have had some initial conversations with KCPL to do so.  
13 Westside Housing has two separate lots available that could be suitable sites for  
14 solar that might benefit low-income tenants through virtual net-metering.

15 **Q: Are there any other recent developments that can influence the viability of a**  
16 **utility sponsored low-income solar pilot program?**

17 A: With Senate Bill 564 being signed into law the Commission has been granted  
18 authority to “approve investments by an electrical corporation in small scale or pilot  
19 innovative technology projects, including but not limited to renewable generation,  
20 micro grids, or energy storage, if the small scale or pilot project is designed to  
21 advance the electrical corporation's operational knowledge of deploying such  
22 technologies, including to gain operating efficiencies that result in customer  
23 savings and benefits as the technology is scaled across the grid or network.” One

1 development that has occurred since the passage of that law is the Commission's  
2 docket on solar rebates. In that case, parties have expressed interest in targeting  
3 low-income customers. I believe that a utility offered community solar program  
4 would be a better way to target low-income customers.

5 A utility sponsored low-income community solar program addresses issues  
6 that a rebate program cannot. A rebate is an effective incentive if the participant  
7 can get access to the needed capital or financing to purchase the underlying asset.  
8 As I mentioned in my Direct testimony, low-income Missourians generally do not  
9 have access to the capital or ability to receive financing needed to take advantage  
10 of a solar rebate. While this is a key barrier for participation the other key barrier  
11 that will prevent full utilization of a low-income rebate is the lack of  
12 homeownership with low-income communities. Much of our advocacy to reduce  
13 the energy burden for low-income communities across Missouri is focused towards  
14 large affordable multifamily housing properties that are occupied by low-income  
15 eligible tenants. A tenant is not able to put solar panels on their unit and, ultimately,  
16 pursuing solar is the building owner's decision.

17 Given the complexities surrounding these different barriers, a solar  
18 subscriber program with a low-income component is much more likely to expand  
19 access to renewable energy in a manner that allows low-income customers to  
20 participate. KCPL and GMO have an opportunity in these rate cases to pursue this  
21 kind of program and set the pace for the other IOUs in the state to follow.

1 III. ON-BILL FINANCING

2 **Q: KCPL Witness Ms. Winslow testified that “It would be premature for the**  
3 **Commission to approve Renew Missouri’s low-income suggestion for on bill**  
4 **financing until after this study is completed for the Company and fully**  
5 **evaluated.”<sup>11</sup> Are you requesting the company conduct a feasibility study on**  
6 **PAYS or on-bill financing in addition the ongoing study by Cadmus?**

7 A. No. I do not want the companies to be duplicative in their efforts here. However, it  
8 would be helpful if the results of the on-going study addressed the compatibility  
9 and ability of the Companies’ new CIS system to incorporate an on-bill financing  
10 program. In the Empire on-bill financing feasibility study, one issue identified was  
11 related to utility adoption of OBF programs listed billing systems as an item to be  
12 addressed. The Empire report stated: “complete significant upgrades to billing  
13 systems to track financing payments and remit payments to the lender, and to  
14 coordinate program design across multiple utilities, including gas and electric  
15 utilities with overlapping territories.”<sup>12</sup> Given the companies’ testimony in this case  
16 supporting their CIS system, I recommend the prior-ordered feasibility study  
17 should include an assessment of the systems’ ability to support on-bill financing in  
18 the future.

19 **Q: Does this conclude your testimony?**

20 A: Yes.

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<sup>11</sup> Rebuttal Testimony of Kimberly H. Winslow, filed July 27, p. 5.

<sup>12</sup> <https://www.efis.psc.mo.gov/mpsc/> Case No. ER-2016-0023, Item No. 300, Empire District Electric Company PAYS Feasibility Study, p. 39.