

BEFORE THE  
PUBLIC SERVICE COMMISSION OF WISCONSIN

Joint Application of Wisconsin Electric Power )  
Company and Wisconsin Gas LLC to Conduct a ) 05-UR-107  
Biennial Review of Costs and Rates for )  
Test Year 2015 )

Surrebuttal Testimony  
of  
Karl R. Rábago  
for  
RENEW Wisconsin and Environmental Law & Policy Center

September 22, 2014

1 **Q. Please state your name, address, and position.**

2 A. My name is Karl R. Rábago. I am principal of Rábago Energy LLC, a New York  
3 limited liability company, with offices located at 44 Briary Road, Dobbs Ferry,  
4 New York.

5  
6 **Q. Are you the same Karl R. Rábago that filed direct testimony in this**  
7 **proceeding?**

8 A. Yes.

9  
10 **Q. On whose behalf are you appearing in this matter?**

11 A. I am testifying on behalf of RENEW Wisconsin (“RENEW”) and the  
12 Environmental Law & Policy Center (“ELPC”).

13  
14

1 **Q. Have you reviewed the rebuttal testimony of Company witnesses O’Sheasy,**  
2 **Rogers, and Brown?**

3 A. Yes.

4  
5 **Q. Do you have any response to that rebuttal testimony?**

6 A. Yes. While I will respond specifically to selected specific statements, it is  
7 important to point out a fundamental flawed assumption in the witness’ testimony  
8 and rebuttal testimony. That flaw is that the broad and uncharacterized interests of  
9 “economic efficiency” will be advanced by aligning rate design with average  
10 class costs revealed in the Company’s cost of service study (COSS). The  
11 argument goes on to suggest that rates aligned with average class costs and their  
12 nature as fixed or variable provide exactly correct “price signals” to give to  
13 customers in order to optimize marginal energy consumption decisions. The  
14 witness’ assumptions in this regard are unsupported in economic literature  
15 because they conflate the notions of average and marginal cost and pricing. That  
16 is, they posit that marginal energy consumption decisions are most economically  
17 efficient when the product is priced according to average costs. Witness Rogers  
18 goes so far (Rebuttal-WEPCO/WG-Rogers-6) to try to paint the fixed customer  
19 charge changes as a step toward allowing “the market” to determine cost  
20 effectiveness for demand-side management and generation. Again, market  
21 efficiency is improved by setting marginal prices at marginal costs—not setting  
22 marginal prices at average costs. These flawed assumptions are absolutely

1 essential to support the conclusions the witnesses reach, and once identified as  
2 flawed, the foundation for the Company rate design proposals fall in their entirety.  
3 It is important to note that what the Company is not proposing in its fixed  
4 customer and distributed generation rates. It is not proposing an electric service  
5 market where each customer is offered, at all times of the day, a product priced  
6 based upon its marginal cost.

7

8 **Q. Do you think accurately reflecting costs in prices advances economic**  
9 **efficiency?**

10 A. Of course, and even the NARUC Cost Allocation Manual cited by witnesses  
11 O'Sheasy and Rogers makes that point. As the "Design of Rates" bullet cited by  
12 witness O'Sheasy (Rebuttal-WEPCO/WG-O'Sheasy-5) states quite clearly:  
13 "Regulators design rates, the prices charged to *customer classes*, using *the costs*  
14 *incurred by each class* as major determinant." To argue that the NARUC Manual  
15 also stands for the proposition that the fixed or variable components of rates  
16 should be synchronized precisely to the allocation labels applied to those costs in  
17 the COSS is not credible; especially since the same provision of the Manual states  
18 that "[o]ther non-cost attributes" are also considered.

19 Witness Rogers (Rebuttal-WEPCO/WG-Rogers-6) cites the Manual for the  
20 proposition that cost studies are used by regulators in determining how costs will  
21 be recovered from customers within each customer class. This statement of  
22 practice does not illuminate the discussion except to point out that the Company  
23 performed no independent study of the costs and benefits associated with

1 customer generation even though the Company is proposing new charges for  
2 those customers.

3

4 **Q. Witness Rogers argues that the state policy prioritizing energy efficiency and**  
5 **renewable energy should be ignored because in some cases these have not**  
6 **been the most cost effective option available to meet a particular need for**  
7 **energy services, and that therefore, the disincentive to energy efficiency**  
8 **created by the proposed fixed charges should be seen as a net improvement**  
9 **for economic efficiency and price signals. Do you agree?**

10 A. No. Policy exists to guide decisions by expressing preferences articulated by  
11 elected leaders on behalf of the public. Wisconsin energy policy expresses a  
12 preference for efficiency and renewables. My testimony that the proposed rates  
13 would adversely impact the uptake of these resources is not refuted. The adverse  
14 impacts and the rates that effectuate those impacts are not justified by the flawed  
15 economic efficiency and price signal arguments that underpin the Company  
16 proposals.

17

18 **Q. Witness Rogers' attempts to discount your testimony about the adverse**  
19 **impacts of the fixed customer charges on energy efficiency in a discussion**  
20 **about elasticity of demand on Rebuttal-WEPCO/WG-Rogers-5. Do you wish**  
21 **to comment?**

22 A. Witness Rogers' argument is misleading at best. My testimony pointed out that  
23 the Company offered no analysis or data to support its assertion that customer

1 demand was being adversely impacted or more inefficient by the current rate  
2 structure. I pointed out that the Company witnesses offered no evidence such as  
3 studies of elasticity of demand to confirm its argument, even theoretically. Mr.  
4 Rogers' irrelevant response was to point out that my testimony of the adverse  
5 impacts on demand for energy efficiency proves that I believe and that there  
6 exists measurable elasticity of demand for electric service. My testimony  
7 concerned cost-effectiveness—something that will measurably and negatively  
8 change if the proposed rate changes go into effect. That objectively measurable  
9 change in energy efficiency cost effectiveness is very different than the  
10 hypothetical inefficiency the Company argues to exist with electricity service  
11 pricing. They are not even the same product.

12

13 **Q. At Rebuttal-WEPCO/WG-Rogers-8, witness Rogers responds to your**  
14 **concern about the unfairness to customer generators resulting from the**  
15 **Company's new and increased charges. Do you agree with his explanation**  
16 **that rate design is a “zero-sum game?”**

17 A. I don't think rate design is a game at all. Customer generators and those who  
18 invest in energy efficiency improvements put serious personal capital into their  
19 project investments. Witness Rogers' attempts to justify his callous attitude  
20 toward these customers by repeating the unsubstantiated assertion that current  
21 rates “punish” customers who have not yet had the opportunity to make these  
22 investments. It is ironic that witness Rogers ignores the potentially regressive  
23 impacts of the Company fixed customer charge proposal on low income, low use

1 customers—for whom electric bills are anything but a game. Even the “zero-sum”  
2 nature of rate making only exists in the short term. My own personal experience is  
3 that over the long term, proper rate design (unlike that proposed by the Company)  
4 can encourage broad based adoption of energy efficiency and distributed  
5 generation that can save all customers a great deal on their electric bills and  
6 reduce the costly overbuilding of power plants that characterized too much of  
7 utilities’ history. Eliminating or reducing the incentives for such cost-effective  
8 trends should not be undertaken merely to align rates with average customer class  
9 costs.

10

11 **Q. Witness Rogers argues at Rebuttal-WEPCO/WG-Rogers-9 of his testimony**  
12 **that it is premature for the Commission or the Company to concern itself**  
13 **with the drivers of dissatisfaction that could ultimately motivate more**  
14 **customers to economically or technically “defect” from the grid, as you**  
15 **discussed in testimony. Do you agree?**

16 A. I agree that we are not at the tipping point for broad scale grid defection of any  
17 kind. But we are clearly at a point where the Company can chose positive,  
18 engaging strategies or alienating, isolating strategies in its rates for customer  
19 energy efficiency and renewable energy investments. The rates proposed by the  
20 Company in this regard exacerbate rather than address the issues in a reasonable  
21 fashion. The Company approach in this case is to make rate design proposals  
22 based on assumptions unsupported by analysis. This does not inspire confidence  
23 or trust by customers of any kind. To make this even worse, witness Rogers

1 refuses to confront these issues as premature, but has no difficulty promoting rate  
2 changes to address problems that, even if they do exist, he concedes to be very  
3 small (Rebuttal-WEPCO/WG-Rogers-18, Ins 11-13), or to impose charges on net  
4 metering customers without actual cost of service data (Rebuttal-WEPCO/WG-  
5 Rogers-20, Ins 7-11).

6

7 **Q. Witness Rogers said at Rebuttal-WEPCO/WG-Rogers-10 of his rebuttal**  
8 **testimony that your testimony that you are not aware of customers who**  
9 **would prefer the Company’s proposed rate changes means that you are not**  
10 **concerned about large users of energy in the rate class. Do you agree?**

11 A. Witness Rogers frequently takes my testimony out of context and twists it to  
12 make his points. His testimony is that I am not concerned about these large  
13 customers and the extent to which they may be subsidizing customer who use less  
14 energy. Witness Rogers is ignoring the fact that the Company is not proposing to  
15 put all customers on marginal cost rates or even on rates that are substantially  
16 based on marginal costs. The Company goal is to reset the consumption level for  
17 “average” rate design to more adversely impact low users of energy and those  
18 who reduce their energy use, while creating more benefit for high users and a  
19 stronger incentive for all customers to use more energy. More importantly, I  
20 maintain my original position from my testimony (Direct-RENEW-Rabago-33p)  
21 that nearly all customers, if properly educated about the impact and structure of  
22 the proposed rate would be frustrated and displeased by the extent to which the

1 Company wants them to surrender control over their electric bills to this  
2 ratemaking design.

3 **Q. Witness Rogers also states on page 10 of his rebuttal testimony (Rebuttal-**  
4 **WEPCO/WG-Rogers-10), that “there’s no reason to believe” costs of serving**  
5 **DG customers would be any different than costs of serving non-DG**  
6 **customers. Do you agree?**

7 A. No. First, we can simply compare the work done by energy from the grid and the  
8 energy from a customer’s rooftop solar system. Customer-generated energy does  
9 every bit as much work at the customer premises as utility energy, and it does that  
10 work with no carbon emissions, no risk of added costs for carbon regulation, and  
11 from a generator for which the private customer assumes all finance, operating,  
12 and insurance risk. Rooftop-generated solar performs the same work with a  
13 premium product—it is worth more than service. With each unit of energy  
14 produced from the customer system, the utility avoids significant costs—  
15 including fuel and other costs. Finally, because solar generation produces this  
16 energy during hours when the utility generally faces higher than average costs,  
17 analysis should reveal added value from such production, resulting in lower costs  
18 to serve. Fortunately, the Company already has a study from Clean Power  
19 Research that documents much of that benefit. Unfortunately, the Company  
20 ignored that analysis when preparing its case.

21 The Company should conduct a cost of service study specific to solar generator  
22 customers, but there are, in fact, good reasons to believe that these customers will  
23 have a lower cost of service.



1 **Q. Witness Rogers also testifies, at page 12 of his rebuttal testimony (Rebuttal-**  
2 **WEPCO/WG-Rogers-12), that customer solar generation differs from energy**  
3 **efficiency in reducing customer demand for energy and capacity because**  
4 **such generation systems are “likely to have sudden fluctuations.” Do you**  
5 **agree?**

6 A. Witness Rogers’ assertions in this regard are exactly the kind of allegations that  
7 should be tested with analysis prior to the expression of opinion. A cost of service  
8 study for customer generators would be entirely appropriate. I would also direct  
9 the Commission’s attention to a study from 1992 entitled “Evaluating the  
10 Revenue Impacts of Customer-Sited Renewable Generation Using Load Research  
11 Data,” which shows that solar linked to an HVAC system behaves like an  
12 efficiency improvement to the HVAC system.<sup>1</sup>

13  
14 **Q. Do you agree with witness O’Sheasy’s assumption that customer generators**  
15 **are currently being subsidized by other customers?**

16 A. This is another wrong and unproven assumption that underpins witness  
17 O’Sheasy’s testimony, and that of other Company witnesses. Witness O’Sheasy  
18 offers no cost of service study of customer generators to substantiate this  
19 assumption. Moreover, witness O’Sheasy and other Company witnesses ignore a  
20 study conducted by the Company in 2009 that shows substantial value from  
21 distributed solar generation. In the absence of such a foundation for their positions,  
22 the Company witness’ positions regarding charges that should be applied to  
23 distributed generation customers are fundamentally flawed and cannot support

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<sup>1</sup> [http://cleanpower.com/wp-content/uploads/2012/02/029\\_RevenueImpactCustSitedGeneration.pdf](http://cleanpower.com/wp-content/uploads/2012/02/029_RevenueImpactCustSitedGeneration.pdf)

1 any of the Company's proposals. This includes the new rebuttal testimony offered  
2 by Company witness Brown.

3

4 **Q. Do you agree with witness Rogers' explanations, at page 11 of his rebuttal**  
5 **testimony (Rebuttal-WEPCO/WG-Rogers-11), concerning how the proposed**  
6 **rates impacting customer generators are consistent with Federal regulations**  
7 **under PURPA, cited in his direct testimony?**

8 A. No. The cited regulations speak to both forced outages and "other reductions in  
9 electrical output by all qualifying facilities." I did not testify that the Company  
10 proposed its charges based on assumptions about forced outages, as witness  
11 Rogers suggests. However, by ignoring the very real value, including and  
12 exceeding slightly-adjusted LMP, provided by customer generators, the Company  
13 rate proposals assume that none of the customer generator facilities provide peak  
14 or non-peak benefits. In practical effect, this is the same as assuming that all such  
15 generators will have simultaneous outages. The failure to recognize any of these  
16 benefits, or even to perform the calculation as to their size, is used as the basis for  
17 the charges to be imposed on customer generators, and has the same impact as a  
18 rate for back-up or maintenance power based on a factually unsupported  
19 assumption about the operation of these facilities. In addressing the requirement  
20 that the charges be just and reasonable, witness Rogers offers no factual data to  
21 support his conclusory assertions.

22

1 **Q. Witness O'Sheasy testifies on page 11 on rebuttal that the new charges for**  
2 **customer generators are designed to make the utility indifferent to whether**  
3 **energy is produced by a self-generator or from a conventional resource**  
4 **(Rebuttal-WEPCO/WG-O'Sheasy-11). Do you agree?**

5 A. No. Neither witness O'Sheasy nor any other witness for the Company has  
6 produced any objective evidence that the adjusted LMP-based avoided cost rate  
7 represents all the costs avoided and benefits received by the utility and its  
8 customers from customer generation. Again, the 2009 study of solar value shows  
9 substantially greater value in customer solar generation than provided in the  
10 avoided cost proposed by the Company. The Company seeks to use prices that  
11 intentionally skewed away from value; in so doing, they compromise the very  
12 economic efficiency they say they want to advance.

13  
14 **Q. Do any of the witnesses for the Company address the value analysis for solar**  
15 **generation presented in the Company's 2009 report prepared by Clean**  
16 **Power Research?**

17 A. Witness O'Sheasy ignores the report. Remarkably, even though he provides a  
18 narrative statement that distributed solar has no value beyond the LMP price for  
19 energy, and cites numbers and graphs from several other jurisdictions, witness  
20 Brown completely ignores the Clean Power Research report conducted precisely  
21 for WE Energies. Witness Rogers addresses the report at Rebuttal-WEPCO/WG-  
22 Rogers-12 to say that he does "not believe that the results of such analyses have  
23 any bearing on our calculation of the value of energy produced by customer-

1 owned generation on our system.” Witness Rogers appears to explain his belief as  
2 based on a suggestion that if the value of distributed generation is real, “then a  
3 market will form for [the renewable energy attributes].” He appears to equate the  
4 price of renewable energy certificates with the value of distributed generation, an  
5 assumption at odds with full avoided cost and valuation analysis as set forth in my  
6 direct testimony.

7 Witness’ Roger’s rebuttal on this point also seems to imply that some kind of  
8 market for solar renewable energy certificates exists or will emerge to do the  
9 work of valuing non-energy attributes that the Company will not. This is not a  
10 realistic assumption.

11

12 **Q. Witness Brown deals extensively with how he would value distributed solar**  
13 **in his rebuttal testimony. Do you have any comments on his testimony?**

14 A. Yes. As previously stated, it is first remarkable that witness Brown built an  
15 argument about value of solar without ever referencing the value of solar study  
16 conducted for the Company by Clean Power Research. Second, I am flattered that  
17 the Company thought enough of my testimony to seek out my old colleague to  
18 engage in this discussion. In the end, however, neither witness Brown’s testimony  
19 nor mine will substitute for the analysis that the Company should conduct prior to  
20 imposing new or elevated charges on customer generators. That is why I  
21 recommend that the Commission deny the Company requests until the issues can  
22 be addressed in a focused, separate proceeding.

23

1 **Q. Doesn't witness Brown provide the results of analyses to support his rebuttal**  
2 **testimony?**

3 A. Yes, he does. But none of the graphs, tables, or findings he cites are based on  
4 Wisconsin or WE Energies data. This is not surprising, since the Company did not  
5 use any Company-specific analysis itself. Simply stated, stripped of the charts and  
6 tables with no demonstrated relevance, witness Brown's testimony amounts to  
7 normative economic arguments insufficient to replace the positive facts and  
8 analysis needed to sustain the Company's proposals regarding customer  
9 generators.

10

11 **Q. What are the major flaws in witness Brown's testimony?**

12 A. In the interest of administrative economy, and because of the very short time  
13 period in which I have had an opportunity to respond to witness Brown's  
14 testimony, I will not provide a point-by-point reply to his testimony. However, I  
15 do not, by my silence agree with anything that I do not discuss. Rather, I  
16 summarize the flaws in witness Brown's testimony as follows:

17 • The most significant problem with witness Brown's essay on net metering is that  
18 it is premised on a classic "straw man" argument throughout. That is, he argues  
19 that net energy metering is a bad way to compensate a competitive wholesale  
20 seller of electricity. The problem with his categorical mistake is that distributed  
21 solar customer generators are not competitive wholesale generators. Net metering  
22 customers are customers who install generation that is designed primarily to offset  
23 their consumption of energy from the utility. This offsetting is implicit in the

1 “spin the meter backwards” physics that witness Brown describes. It is long-  
2 settled federal law that net metering customers are not engaged in a sale of  
3 electricity merely due to their occasional export of energy use to the grid. Witness  
4 Brown’s analysis is therefore not applicable, in large part, to the situation at hand.

5

6 • Witness Brown, at page 3 of his testimony (Rebuttal-WEPCO/WG-Brown-3),  
7 again employs a “straw man” argument by mischaracterizing my testimony, and  
8 that of other witnesses, as calling for a “value of solar” methodology for  
9 compensating solar customer generators. We are not now at that stage of  
10 discussion. My testimony was that there is insufficient analysis of the value of  
11 solar to support WE Energies proposed anti-solar charges. Witness Brown does  
12 not provide that analysis, only his subjective opinions, so the Commission still has  
13 no data on which to evaluate the legitimacy of the Company’s proposals.

14 Likewise, I see nothing that indicates, as witness Brown states at Rebuttal-  
15 WEPCO/WG-Brown-7, that I or any other witness is calling for a “subjective  
16 consideration of value.”

17

18 • Witness Brown significantly and surprisingly mischaracterizes the role of the  
19 Company and intervenors in this proceeding. He seems to argue at Rebuttal-  
20 WEPCO/WG-Brown-9 that intervenors, rather than the Company, bear an  
21 affirmative burden to produce and prove the value of solar in order to justify a  
22 Commission decision not to adopt the Company recommendations in this case.  
23 That is not the law, nor does witness Brown accurately recite the facts. The facts

1 are that my testimony, that of other witnesses, and the Company's own  
2 information reflected in the Clean Power Research study conducted in 2009 all  
3 point to the very real, empirically verifiable benefits of distributed solar  
4 generation. This testimony and evidence demonstrates that the Company has  
5 failed in meeting its affirmative burden of proof and persuasion in this case  
6 because the Company has, in fact, produced no cost of service or other study to  
7 support its solar rate proposals.

8

- 9 • Witness Brown picks and chooses his assumed level of solar penetration in an  
10 effort to make his points. The issue before the Commission is whether the  
11 proposed solar charges are justified on the facts in this case. Witness Brown's  
12 overall argument regarding distributed solar is that it is too small to generate  
13 transmission, distribution, or capacity value. On the contrary, he also cites  
14 numerous problems caused by solar that can only arise with several orders of  
15 magnitude more operating solar capacity than currently exists in Wisconsin.  
16 These include: the impacts of an "unplanned system of rooftop solar" (Rebuttal-  
17 WEPCO/WG-Brown-32), distorting utility scale investment decisions (Rebuttal-  
18 WEPCO/WG-Brown-34), creating a "duck graph" phenomena and demand for  
19 new transmission resources (Rebuttal-WEPCO/WG-Brown-35), changing energy  
20 flows on the transmission system (Rebuttal-WEPCO/WG-Brown-36), distorting  
21 market prices (Rebuttal-WEPCO/WG-Brown-39), putting large scale renewables  
22 at a competitive disadvantage (Rebuttal-WEPCO/WG-Brown-40), impact on  
23 renewable energy certificate (REC) prices (Rebuttal-WEPCO/WG-Brown-41),

1 agitating wholesale generators to the point of seeking FERC preemption of NEM  
2 state laws and policies that have existed for as long as 30 years (Rebuttal-  
3 WEPCO/WG-Brown-43), that NEM is causing a market situation analogous to  
4 that in Germany (Rebuttal-WEPCO/WG-Brown-48), and that it will create new  
5 demand for capacity (Rebuttal-WEPCO/WG-Brown-49).

6

7 • Witness Brown also demonstrates confusion about how value of solar analysis  
8 works, especially regarding potential market price impacts from increased  
9 penetration of distributed solar generation. He takes the view that solar customers  
10 are like vegetarians seeking payment from carnivores for helping to reduce the  
11 demand for and costs of meat. First, such impacts would be incrementally small  
12 absent high solar market penetration and consideration of the long term. Second,  
13 any market price reductions from solar market penetration would reduce the value  
14 of energy costs avoided by solar generation. As with his characterization that  
15 value of solar analysis is subjective, this view of witness Brown's is in error.

16

17 • Witness Brown and the Company seek to charge customer generators for  
18 offsetting their net bill with self-generation. In the regulated monopoly system,  
19 customers pay for what they use, and not what the utility thinks they should use.  
20 Net metering customers use less energy and make less use of utility infrastructure  
21 than do other customers. It is perfectly reasonable to expect that this reduced use  
22 of the grid and of utility-sourced energy would reduce utility costs. Net metering  
23 accounts for this by charging customers for use fully, and for granting a credit for



1 generation at the retail rate. Witness Brown does not think that these self-  
2 generation benefits are “likely.” He largely bootstraps his conclusions through  
3 review of constrained, short-term scenarios and their likely results. I argue that his  
4 conclusions should be evaluated against my proposition that these benefits are  
5 both real and measurable. This is the major difference between witness Brown’s  
6 position and mine. I believe my argument for cost savings should be analyzed,  
7 confirmed, and quantified. Witness Brown finds these cost savings unlikely, and  
8 because of that, assumes that the correct answer is zero. This is a classic error.  
9 Witness Brown wants the Commission to accept the only answer that we know is  
10 absolutely wrong—that the value is zero.

11

12 • Witness Brown ignores the Clean Power Research study that WE Energies  
13 commissioned and received. His valuation exercise, drawing on non-Wisconsin  
14 studies and irrelevant reports ignores that entirely and fatally flaws his testimony.

15

16 • Witness Brown cites a study by Charles Frank, and a great deal of irrelevant  
17 additional commentary, for the proposition that according to the analysis  
18 performed by Frank, solar generation is not the most cost effective way to  
19 accomplish marginal carbon emissions reductions. The decision to cite this study  
20 is confusing, because the question witness Brown purports to answer is whether  
21 solar generation avoids carbon emissions, not whether it is the best way to do  
22 reduce emissions. The Frank study cited by witness Brown at Rebuttal-  
23 WEPCO/WG-Brown-38 answers the question asked directly—solar generation

1 avoids carbon emissions. But the Frank study only compares short term  
2 annualized costs and ignores the long term benefits of solar. This assumption  
3 greatly and unjustifiably discounts the value of customer generation because it  
4 ignores the 30 years or more of carbon emissions avoidance and fuel hedging  
5 value that solar generation creates.

6

7 • The same Frank study includes all the cost of solar in its calculations, rather than  
8 ignoring customer investment, as would be more appropriate in assessing costs to  
9 utilities and other ratepayers. The private investment in distributed generation and  
10 energy efficiency retrofits is not properly an element of accurate avoided cost  
11 valuation. If one subtracts those private investments, the conclusions from the  
12 Frank study would likely change significantly.

13

14 • Witness Brown testifies as if the objective of all renewable energy deployment is  
15 achieving the cheapest carbon reductions. That is not the point of the Wisconsin  
16 energy policy or of ratemaking for distributed generation. This is not an EPA  
17 proceeding.

18

19 • While witness Brown correctly recognizes that distributed solar is an intermittent  
20 resource, he ignores the predictability of solar generation in his discussion of the  
21 capacity value of distributed generation. The International Energy Agency  
22 addressed this in a 2007 report entitled “Contributions of Renewables to Energy

1 Security,” explaining that “[a]ttention has focused disproportionately on the issue  
2 of the variability of renewable electricity production.”<sup>2</sup>

3

- 4 • Witness Brown, like other Company witnesses, approaches distributed solar as if  
5 it were just another utility-scale generation option. Distributed solar provides  
6 greater value because it is embedded in the distribution system, and in most cases,  
7 serves load at the site where it is located. This is the source of substantial savings  
8 and benefit. This is explained in great detail in the Clean Power Research study  
9 conducted for WE Energies in 2009 that witness Brown ignored or overlooked.

10

11 **Q. Witness Brown (Rebuttal-WEPCO/WG-Brown-4) and witness Rogers**  
12 **(Rebuttal-WEPCO/WG-Rogers-40) do not believe that customer solar**  
13 **generation has much or any value, for a single system, or in aggregate,**  
14 **because solar is intermittent and not a dispatchable resource. Is**  
15 **intermittence or lack of dispatchability a legitimate basis for refusing to**  
16 **acknowledge or even study the potential benefits of customer solar**  
17 **generation?**

18 A. It is not. It is a physical fact that solar photovoltaic generation is not dispatchable.  
19 It is also intermittent. That is not the same as saying that solar is unpredictable.  
20 Nor is it reasonable to therefore conclude that every kilowatt of solar capacity  
21 must be duplicated with an equivalent kilowatt of a dispatchable resource as  
22 backup power, as is asserted by witness Brown. Neither of these unsupported  
23 assumptions can be the basis for rates and charges absent actual analysis of solar

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<sup>2</sup> Page 5. Available at [http://www.iea.org/publications/freepublications/publication/so\\_contribution.pdf](http://www.iea.org/publications/freepublications/publication/so_contribution.pdf)

1 generation performance in Wisconsin. It is important to note that the Clean Power  
2 Research study conducted for WE Energies found significant non-energy value in  
3 distributed solar generation even though its load matching adjustment used the  
4 most conservative option available, a “single peak hour” method.

5  
6 **Q. In several places, witness O’Sheasy disputes your characterization of what  
7 the Company has intended to accomplish with its rate design proposals. How  
8 do you respond?**

9 A. It is a core principle of law in our society that actors are correctly presumed to  
10 intend the natural consequences of their actions. My testimony and that of other  
11 witnesses makes it clear that the rate design proposals are unfair to customers  
12 seeking to use energy more efficiently, to customers seeking to self-generate, to  
13 low-income and low-use customers, and would frustrate Wisconsin state energy  
14 policy. The Company must take responsibility for all the natural consequences of  
15 their proposed rates, and cannot abdicate this responsibility merely through a  
16 statement of intentions by witnesses.

17  
18 **Q. Witness O’Sheasy asserts at page 6 of his rebuttal testimony (Rebuttal-  
19 WEPCO/WG-O’Sheasy-6) that a fairness issue arises when customers use  
20 less energy and then “avoid paying their pro rata share of customer cost”  
21 and that cost shifting results. Do you agree?**

22 A. This is the natural extension of witness O’Sheasy’s flawed reasoning. His  
23 “economic efficiency” argument is founded on the notion that any customer who

1 voluntarily and volitionally uses less energy than the hypothetical average  
2 customer in the class is “avoiding” and “cost shifting. His assertion makes my  
3 point exactly. There is no reasonable argument that failure of a customer’s  
4 payments to hew to the class average level of usage gives rise to an unfairness  
5 issue. This is a thinly veiled argument for the worst kind of socialized rates.  
6 Ratemaking has many tools to deal with deviations from forecasts, but trying to  
7 force all customers to pay the average pro rata share of class cost is perhaps the  
8 poorest. As I pointed out in my testimony, the consequences would stifle energy  
9 efficiency deployment, innovation, and conservation.

10

11 **Q. Witness O’Sheasy says on page 8 of his rebuttal testimony that “[r]ecovering**  
12 **demand-related costs through a charge per kW hews more closely to the**  
13 **principle of cost causation than placing costs into the energy charge.”**  
14 **(Rebuttal-WEPCO/WG-O’Sheasy-8). Do you agree?**

15 A. Of course. But, once again, how charges are reflected in rate design is another  
16 matter entirely. Witness O’Sheasy is proposing the unbundling of residential  
17 electric service into separate service elements for customer connection, for  
18 demand-related services, and for energy. Classification of costs, as described in  
19 the abstract from the EEI report quoted by witness O’Sheasy, is not and has never  
20 been the only factor to be considered in residential and small commercial  
21 customer rates, for good reason. That is, cost of service regulation based on  
22 average customer class costs and relying upon average class rates presumes  
23 averaging, and gives rise to a number of benefits. If the Company seeks to fully

1 unbundle all rate elements, the logical next step is to examine the need for and  
2 continued benefits of a monopoly franchise, and to determine which services and  
3 products can be delivered competitively.

4

5 **Q. Witness O'Sheasy accuses you of seeking to distort price signals through**  
6 **rejection of the Company's proposed fixed customer charges. Is he right?**

7 A. No. Once again, witness O'Sheasy bases his accusation on trying to force all  
8 customers to pay the average class cost, something that is not economically  
9 efficient, fair, or supported by policy. My point is that aligning rate design  
10 structure with class average costs provides no inherent accuracy in price signals.  
11 That is why no body of economic policy exists that supports this approach outside  
12 of the self-serving proclamations of the Company witnesses.

13

14 **Q. At page 14 in his rebuttal testimony (Rebuttal-WEPCO/WG-O'Sheasy-14),**  
15 **witness O'Sheasy takes issue with your argument that pricing customer**  
16 **generator energy only at the wholesale energy rate results in a penalty and**  
17 **tax on these customers. Do you agree?**

18 A. No. The witness offers no analysis in support of the proposed charges, and no  
19 justification for rejecting the evidence contained in the 2009 study of solar value  
20 performed by Clean Power Research. Absent evidence, the Company proposals  
21 fail to meet both the burden of production and proof.

22

1 **Q. Witness O'Sheasy attempts to respond to your argument that the Company**  
2 **proposals lack substance and support at page 14 of his rebuttal testimony**  
3 **(Rebuttal-WEPCO/WG-O'Sheasy-14) by providing an arithmetic example.**  
4 **Does his example serve to provide the necessary data?**

5 A. No. Witness O'Sheasy's example shows that, according to Company data, some  
6 \$83,874,000 in revenue requirement that the Company classifies as "customer-  
7 related" would not be collected in the customer charge in 2015. Of course, this  
8 says nothing about whether the Company would experience an actual revenue  
9 collection shortfall, since the existing rates collect that revenue through energy  
10 charges for residential customers. There is no "under-collection," because as the  
11 witness himself states, the revenue is recovered through the energy charge.  
12 Witness O'Sheasy's example is just another version of his argument that rates  
13 should be perfectly aligned with average class cost structure as reflected in the  
14 Company's decisions about classification and allocation. On this same example,  
15 witness Rogers is of two minds. On Rebuttal-WEPCO/WG-O'Sheasy-4, he states  
16 that his testimony (Direct-WEPCO/WG-Rogers-15 Schedule 2 & 3) demonstrates  
17 an under-recovery of revenues, but on Rebuttal-WEPCO/WG-O'Sheasy-23, he  
18 asserts that "[t]he issue that concerns the Company is not revenue recovery."

19  
20  
21  
22

1 **Q. Witness O'Sheasy further takes issue, on page 15 of rebuttal (Rebuttal-**  
2 **WEPCO/WG-O'Sheasy-15), with your testimony that neither he nor the**  
3 **Company has actually demonstrated a problem that needed correction with**  
4 **the dramatic changes proposed in rate design. He says that the economic**  
5 **logic of the Company testimony is "simple and compelling." Do you agree?**

6 A. No. As H.L. Mencken once said, "for every complex problem, there is an answer  
7 that is clear, simple, and wrong." The Company proposals may appear simple and  
8 clear, but they are wrong as a matter of ratemaking, economics, and Wisconsin  
9 state policy. Again, the problem the Company is trying to correct is that ultimate  
10 customer bills may deviate from the average customer bill. By definition, some  
11 customers—roughly half—will use less energy than the average for the class.  
12 Others will use more. Witness O'Sheasy discovered that when fixed costs are  
13 included in small customer rates and a customer uses less than the average  
14 number of kilowatt hours, the fixed cost recovery for that customer will not equal  
15 the fixed cost recovery for the class. This is the simple mathematics to which I  
16 refer. Witness O'Sheasy takes this realization too far when he tries to argue that  
17 this is a consequence attending to average rates that was unintentional,  
18 undesirable, or inefficient. These rates also mean that high users contribute more  
19 to fixed cost recovery than the average customer in the class. If this consequence  
20 results in fundamental unfairness or demonstrated economic efficiency, there are  
21 several options available. For example, the Company could look within the class  
22 for new class definitions, based on more narrowly-focused cost of service studies.



1 The last and least desirable approach is to impose regressive charge increases that  
2 frustrate Wisconsin energy policy priorities.

3

4 **Q. Witness O'Sheasy also takes issue, on page 16 of his rebuttal testimony**  
5 **(Rebuttal-WEPCO/WG-O'Sheasy-16), with your testimony regarding the**  
6 **lack of evidence to support charges on customer generators as a corrective**  
7 **for "possible over-investment in self-generation." Does he provide the**  
8 **evidence to address your concern?**

9 A. No. Witness O'Sheasy says his concerns about "over-investment" must be valid  
10 because he has assumed them to be valid, and offers nothing more. He merely  
11 repeats his unanalyzed assertion that customer generators receive more for their  
12 generation than the value of their product to the utility.

13

14 **Q. Does this complete your surrebuttal testimony?**

15 A. Yes, it does.