

**BEFORE THE  
PUBLIC SERVICE COMMISSION OF WISCONSIN**

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Joint Application of Wisconsin Electric Power  
Company and Wisconsin Gas LLC, both d/b/a      Docket No. 05-UR-107  
We Energies, to Conduct a Biennial review of Co  
and rates – Test year 2015 Rates

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DIRECT TESTIMONY

of

J. RICHARD HORNBY

On behalf of

THE ALLIANCE FOR SOLAR CHOICE

August 28, 2014

**DIRECT TESTIMONY OF J. RICHARD HORNBY**

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1       **I. INTRODUCTION AND QUALIFICATIONS**  
2

3       **Q. PLEASE STATE YOUR NAME, EMPLOYER, AND PRESENT POSITION.**

4       A. My name is James Richard Hornby. I am a Senior Consultant at Synapse Energy  
5       Economics, Inc., 485 Massachusetts Avenue, Cambridge, MA 02139.A.

6       **Q. PLEASE DESCRIBE SYNAPSE ENERGY ECONOMICS.**

7       A. Synapse Energy Economics (“Synapse”) is a research and consulting firm specializing in  
8       energy and environmental issues, including: electric generation, transmission and  
9       distribution system reliability, market power, electricity market prices, stranded costs,  
10      efficiency, renewable energy, environmental quality, and nuclear power.

11      **Q. PLEASE SUMMARIZE YOUR WORK EXPERIENCE AND EDUCATIONAL  
12      BACKGROUND.**

13      A. I have over thirty years of experience in the energy industry, primarily in utility  
14      regulation and energy policy. Since 1986, as a regulatory consultant I have provided  
15      expert testimony and litigation support on natural gas and electric utility resource  
16      planning, cost allocation and rate design issues in over 120 proceedings in the United  
17      States and Canada. During that period my clients have included staff of public utility  
18      commissions, state energy offices, consumer advocate offices, environmental groups and  
19      marketers.

20  
21      Prior to joining Synapse in 2006, I was a Principal with CRA International and prior to  
22      that with Tabors Caramanis & Associates. From 1986 to 1998, I worked with the Tellus  
23      Institute (formerly Energy Systems Research Group). Initially, I was Manager of the

1 Natural Gas Program and subsequently I was Director of their Energy Group. Prior to  
2 1986, I was Assistant Deputy Minister of Energy for the Province of Nova Scotia.

3

4 I have a Master of Science in Energy Technology and Policy from the Massachusetts  
5 Institute of Technology (MIT). My undergraduate degree is a Bachelor of Industrial  
6 Engineering from the Technical University of Nova Scotia, which is now the Engineering  
7 School of Dalhousie University. I have attached my resume to this testimony as Ex.-  
8 TASC-Hornby-1.

9 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE WISCONSIN PUBLIC**  
10 **SERVICE COMMISSION?**

11 A. No.

12 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

13 A. I am testifying on behalf of The Alliance for Solar Choice (“TASC”). TASC is an  
14 organization founded by companies that comprise the majority of the nation’s rooftop  
15 solar industry.

16

17 **II. PURPOSE, CONCLUSIONS AND RECOMMENDATIONS**

18

19 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

20 A. The purpose of my testimony is to review certain of the changes in rate design proposed  
21 by witness Eric Rogers (Direct-WEPCO/WG-Rogers) on behalf of We Energies (We  
22 Energies or Company). Mr. Rogers is proposing that We Energies replace its nine  
23 existing customer generation service (CGS) tariffs with four new customer-owned

1 generation service (COGS) tariffs. (Customer-owned generation is also referred to as  
2 distributed generation.) Rogers is also proposing to implement new facility charges  
3 and/or demand charges in those COGS tariffs. Mr. Rogers relies, in part, on the testimony  
4 of We Energies' witness Michael O'Sheasy (Direct-WEPCO/WG-O'Sheasy) who  
5 discusses the ratemaking principles he believes support Mr. Rogers' proposed changes in  
6 rate design for the four new COGS tariffs.

7 **Q. WHAT DATA SOURCES DID YOU RELY UPON TO PREPARE YOUR**  
8 **TESTIMONY AND EXHIBITS?**

9 A. My testimony is based upon the Direct Testimonies and Exhibits of We Energies'  
10 witnesses Rogers and O'Sheasy, their responses to data requests, and various reports on  
11 ratemaking and benefits of customer-owned generation.

12 **Q. PLEASE SUMMARIZE THE MAJOR FINDINGS FROM YOUR REVIEW OF**  
13 **THE PROPOSED CHANGES IN RATE DESIGN FOR CUSTOMER-OWNED**  
14 **GENERATION.**

15 A. The major findings from my review are as follows:

- 16 • Customer-owned generation under the existing CGS tariffs is not having a material  
17 adverse impact on the ability of We Energies to recover its costs or on the rates and  
18 bills of customers who do not own generation. Thus, there is no need for the  
19 Commission to address or resolve the Company's proposals in this proceeding;
- 20 • The charges the Company is proposing for its customer-owned generation tariffs are  
21 not in the public interest because they are not based upon a comprehensive  
22 assessment of the benefits and costs of customer-owned generation;

1 • The charges the Company is proposing for its customer-owned generation tariffs are  
2 not reasonable from a ratemaking perspective. First, the Company has not  
3 demonstrated that the proposed charges are based on the embedded and the marginal  
4 costs that We Energies incurs to serve customers on COGS tariffs. Second, the  
5 Company fails to demonstrate that the proposed changes will result in a material  
6 improvement to the accuracy of its price signals. Third, the Company is unfairly  
7 discriminating against CGS customers, by proposing these fixed charges to reduce  
8 purported subsidization of CGS customers by non-CGS customers, but it is not  
9 proposing similar fixed charges to reduce other subsidization between groups of other  
10 customers. Fourth, the Company is unfairly discriminating against CGS customers  
11 by proposing these fixed charges to improve its recovery of fixed costs from CGS  
12 customers but not proposing similar fixed charges to improve its recovery of fixed  
13 costs from non-CGS customers with low load profiles.

14 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS BASED ON THOSE**  
15 **CONCLUSIONS.**

16 A. Based upon my review of the proposed changes, the Commission should not approve the  
17 changes the Company has proposed to its existing CGS tariffs.

18

1     **III. REVIEW OF PROPOSED CHANGES IN RATE DESIGN FOR CUSTOMERS**  
2             **WHO OWN GENERATION**

3

4     **Background**

5

6     **Q. PLEASE DESCRIBE THE EXISTING TARIFFS UNDER WHICH CUSTOMERS**  
7             **WITH ON-SITE GENERATION TAKE SERVICE AND THE SCALE OF**  
8             **CUSTOMER-OWNED GENERATION ON THE WE ENERGIES SYSTEM.**

9     A. We Energies customers with on-site generation take service under one of the Company’s  
10            nine CGS tariffs in addition to taking service under their regular rate schedule.

11            Customers on CGS tariffs pay the monthly facilities charge under their regular rate  
12            schedule as well as the energy charge under that regular rate schedule applied to the net  
13            quantity of energy they consume each month. In any month in which the quantity of  
14            energy the customer supplies to the Company exceeds the quantity the customer has  
15            consumed, the Company compensates the customer for the net excess energy (kWh) in  
16            the form of a bill credit equal to the net excess energy multiplied by the CGS tariff  
17            energy rate, also referred to as a “buyback” rate.

18

19            We Energies has a minimal level of customer-owned generation on its system. As of June  
20            2013 it was serving only 467 customers on its nine CGS tariffs and allowing customers to  
21            enroll in only four of those nine CGS tariffs (CGS 1, CGS 7, CGS 8 and Cp4). The  
22            remaining CGS tariffs are closed to new accounts. The 467 customers taking service on  
23            its CGS tariffs represent approximately 0.04 percent of the Company’s total customers.

1 The majority of those customers are taking service on CGS 6 (341 customers), which is  
2 closed to new accounts, and CGS 8 (103 customers). Pages 1 and 2 of Ex.-TASC-  
3 Hornby-2 present the distribution of customers by existing CGS tariff and rate class as of  
4 June 2013 and projected for Test Year 2016 respectively.

5 **Q. WHY IS MR. ROGERS PROPOSING TO CHANGE THE EXISTING CGS**  
6 **TARIFFS?**

7 A. Mr. Rogers is proposing changes in the existing tariffs applicable to customer-owned  
8 generation to bring them in alignment with three principles he believes should guide their  
9 design (Direct-WEPCO/WG-Rogers-49, line 20, to 50 line 9). His three principles are:

- 10 1. customer-owned-generation rates should pay customers for their generation based  
11 on the costs the utility avoids,
- 12 2. customer-owned-generation should not be subsidized by customers who do not  
13 have generation, and
- 14 3. customer-owned-generation rates should be understandable by the customers on  
15 those tariffs, should not be burdensome to the utility billing department and  
16 should be explainable by marketing representatives.

17 **Q. HOW IS MR. ROGERS PROPOSING TO ALIGN CUSTOMER-OWNED**  
18 **GENERATION TARIFFS WITH HIS THREE PRINCIPLES?**

19 A. Mr. Rogers is proposing to align the Company's customer-owned generation tariffs with  
20 his three principles primarily by replacing the nine CGS tariffs with four new COGS  
21 tariffs and by implementing new facilities and demand charges in those new COGS  
22 tariffs. The proposal to implement these facilities and demand charges is a major change



1 in rate design that will increase the monthly bills of existing CGS customers. These  
2 proposed changes are summarized in Ex.-TASC-Hornby-3.

3

4 To align the tariffs with his first principle Mr. Rogers is proposing that the Company  
5 develop the energy buyback rates for the new tariffs from its avoided wholesale energy  
6 costs, referred to as a Locational Marginal Price (LMP) plus its avoided transmission  
7 costs. This buyback rate will result in a significant increase in the monthly bills of CGS-  
8 6 customers because they will experience a major reduction in the energy rate We  
9 Energies pays them for the excess generation they sell to the Company. For example, a  
10 Rg1 customer taking service under CGS 6 would see their buyback rate decrease by 70  
11 percent, from \$0.1390 per kWh to \$0.0425 per kWh.<sup>1</sup>

12

13 To align the tariffs with his second principle Mr. Rogers is proposing that the Company  
14 implement a facilities charge, a demand charge, or both in the new tariffs. He is  
15 proposing both charges for the COGS-Net Metered (NM) tariff, the tariff to which most  
16 existing CGS customers will be transferred. These two new charges will increase the  
17 monthly bills of the CGS-2, CGS-4, CGS-6 and CGS-8 customers transferred to COGS –  
18 NM.

19

20 To align tariffs with his third principle, Mr. Rogers is proposing that the Company  
21 replace the nine existing tariffs for customer-owned generation with four new tariffs. He

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<sup>1</sup> Rates for 2016 TY from Ex-WEPCO/WG-Rogers-14.

1 proposes to move the existing customers on those tariffs to the COGS-NM tariff, unless  
2 any of them elect to take service under one of the other new tariffs. The proposed transfer  
3 of customers on CGS-2, CGS-6, and CGS-8 would occur on their first billing cycle  
4 ending after January 1, 2016 while the transfer of the 14 existing customers on CGS-4  
5 would occur as their existing contracts expire.

6 **Q. ON WHICH OF MR. ROGERS' PROPOSED CHANGES DOES YOUR**  
7 **TESTIMONY FOCUS?**

8 A. My testimony focuses primarily on Mr. Rogers' claim that customer-owned-generation  
9 should not be subsidized by customers who do not have generation, and on the facilities  
10 and demand charges he is proposing based upon that claim. I also address his rate design  
11 principle that customer-owned-generation rates should pay customers for their generation  
12 based on the costs the utility avoids. My testimony explains why the facility and demand  
13 charges Mr. Rogers is proposing are not in the public interest and are not reasonable from  
14 a ratemaking perspective.

15 **Q. ARE CUSTOMERS ON THE EXISTING CGS TARIFFS MAKING A**  
16 **CONTRIBUTION TOWARDS WE ENERGIES RECOVERY OF ITS FIXED**  
17 **COSTS?**

18 A. Yes. Ex.-TASC-Hornby-16 contains the average bills of customers on the CGS tariffs  
19 and the average bills of We Energies' residential customers. The figures in that exhibit  
20 demonstrate that customers on the existing CGS tariffs are making a contribution towards  
21 We Energies' recovery of its fixed costs.

1 **Q. IS CUSTOMER-OWNED GENERATION UNDER EXISTING CGS TARIFFS**  
2 **HAVING MAJOR ADVERSE IMPACTS ON WE ENERGIES OR ON ITS NON-**  
3 **CGS CUSTOMERS?**

4 A. No. Mr. Rogers has not presented any quantitative analyses that demonstrate customer-  
5 owned generation under the existing CGS tariffs is having a major adverse impact on the  
6 ability of We Energies to recover its costs or on the rates and bills of its customers who  
7 do not own generation. Thus, although We Energies is requesting the Commission to  
8 approve the changes it has proposed in this proceeding, it has not presented sufficient  
9 evidence for the Commission to approve their request.

10

11 Mr. Rogers has not presented any evidence that customer-owned generation is posing a  
12 material threat to the Company or to its non-CGS customers. On the contrary, neither his  
13 testimony nor his exhibits present an estimate of the magnitude of the purported  
14 subsidization of customers on CGS tariffs by non-CGS customers or an estimate of the  
15 resulting adverse rate impacts. In fact, he fails to present any data on the number of CGS  
16 customers by rate class or the revenues the Company is collecting from them at its  
17 current and proposed rates (Ex-WEPCO/WG-Rogers-15). Mr. Rogers did not estimate  
18 the cost of providing service to customers on CGS or COGS tariffs as part of his cost-of-  
19 service study (Ex.-TASC-Hornby- 6). He also admits that the Company has not prepared  
20 an analysis of the impact on rates of non-CGS customers if the Commission does not  
21 approve the proposed changes in CGS rates (Ex.-TASC-Hornby- 7).

22

1           There is no evidence indicating that the Commission needs to approve the Company's  
2           proposed changes in CGS tariffs. We Energies estimates it would collect an additional  
3           \$116,000 per year if the Commission approves the facility and demand changes it is  
4           proposing for the new COGs tariffs (Ex.-TASC-Hornby- 7). That amount represents an  
5           additional 0.005% of its TY2015 revenue at current rates. In contrast, We Energies is  
6           requesting an increase in rates which would allow it to collect an additional \$78,855,661  
7           in TY 2016, or 2.72% more than its projected 2015 test year (TY) revenue at current  
8           rates. These statistics, presented in Ex.-TASC-Hornby-4, indicate that customer-owned  
9           generation is not posing a material threat to the Company's financial health, or to the  
10          rates of non-CGS customers, and is not forecast to do so within the next several years.

11

12   **Review of Proposed Changes From a Public Interest Perspective**

13   **Q.     WHY ARE THE COMPANY'S PROPOSED CHANGES IN CHARGES FOR**  
14   **CUSTOMER-OWNED GENERATION TARIFFS NOT IN THE PUBLIC**  
15   **INTEREST?**

16   A.    The changes the Company is proposing in the charges for its customer-owned generation  
17          tariffs are not in the public interest because they are not based upon a comprehensive  
18          assessment of the benefits and costs of customer-owned generation, particularly the  
19          benefits of customer-owned renewable generation.

20

21          As I have indicated, it is not critical from the Company's perspective that the  
22          Commission approve the proposed changes. In contrast, approval of these proposed  
23          changes may have a serious adverse impact on customer-owned generation in Wisconsin.

1 Given the serious public interest implications of approving these proposed changes, the  
2 Commission’s decision should be informed by a comprehensive assessment of the  
3 benefits and costs of customer-owned generation. A comprehensive assessment should  
4 include several different perspectives, such as society, ratepayers with customer-owned  
5 generation, ratepayers without customer-owned generation, and the State of Wisconsin –  
6 and not just the perspective of We Energies.

7 **Q. HAS THE COMMISSION EXPRESSED INTEREST IN A COMPREHENSIVE**  
8 **ASSESSMENT OF THE COSTS AND BENEFITS OF CUSTOMER-OWNED**  
9 **GENERATION?**

10 A. Yes, the Commission has expressed interest in a comprehensive assessment of the costs  
11 and benefits of customer-owned generation. Mr. Rogers recognized this fact when he  
12 presented the following quote from the Commission’s November 15, 2013 Order in  
13 Docket 05-GF-233, PSC REF#:193575, (“Commission Order”), “*Current tariffs may*  
14 *need to be re-examined to ensure distributed generation buyback rates fairly reflect costs*  
15 *and benefits associated with distributed generation, and to ensure that utility rate*  
16 *structures appropriately recover the costs associated with providing utility service to*  
17 *customers with distributed generation.*” (Direct-WEPCO/WG-Rogers-49). However, Mr.  
18 Rogers then states that his proposed changes in rate design are responsive to that  
19 statement. I disagree.

20 **Q. WHY DO YOU DISAGREE?**

21 A. I disagree because the Commission Order in that Docket alludes to the policy and  
22 economic issues associated with customer owned generation yet no witness for We  
23 Energies has filed testimony addressing those broader issues. For example, no We

1 Energies witness has filed testimony assessing the benefits and costs of customer-owned  
2 generation from a public policy perspective.

3  
4 The Commission Order states that “[t]he Commission finds that it is reasonable and more  
5 impactful to address these economic and policy issues in a broader context and as part of  
6 the utilities’ next rate cases.” In addition, Commissioner Callisto states in his dissent to  
7 that Order, “[t]he reality is that we have no overarching regulatory policy on DG in this  
8 state”. However, no witness for We Energies has filed testimony assessing the benefits  
9 and costs of customer-owned generation.

10 In his testimony Mr. Rogers maintains that customer-owned generation provides We  
11 Energies only three types or categories of quantifiable benefits, i.e., avoided wholesale  
12 energy cost (LMP), avoided marginal transmission cost and avoided line losses. In fact,  
13 various studies disagree with this claim, including a 2009 report prepared for We  
14 Energies. (Ex.-TASC-Hornby- 9) That study indicated that distributed solar generation  
15 may avoid distribution cost (in addition to transmission cost) and may provide up to an  
16 additional eleven categories of benefits. Those additional categories are environmental  
17 benefits, avoided generating capacity costs, fuel price hedging, energy market impacts  
18 (supply induced price effects), ancillary services, avoided renewable costs, health  
19 benefits, security and resiliency of grid, environmental and safety benefits, economic  
20 activity and visibility benefits.

21  
22 The 2009 report prepared for We Energies indicate that distributed solar generation had a  
23 value of \$0.15/per kWh to the Company over a 30-year period based on avoided costs for

1 wholesale energy, environmental compliance, fuel price hedging, distribution,  
2 transmission and line losses. (Ex.-TASC-Hornby- 9) A 2014 report issued by the  
3 Minnesota Department of Commerce presents a methodology for estimating the benefits  
4 of distributed solar generation in terms of the avoided costs of fuel cost, plant operations  
5 and maintenance (“O&M”), generation capacity, transmission capacity, distribution  
6 capacity, environmental compliance and voltage control.<sup>2</sup> Clean Power Research, the  
7 same group that prepared the 2009 report on PV Value for WE Energies, co-authored the  
8 Minnesota report.

9 **Q. ARE AVOIDED ENVIRONMENTAL COSTS A MEASURABLE AND**  
10 **SUBSTANTIATED BENEFIT OF RENEWABLE CUSTOMER-OWNED**  
11 **GENERATION?**

12 A. Yes. The 2009 PV Value study prepared for We Energies estimated the environmental  
13 value of distributed solar generation to be almost as large as the avoided generation  
14 value. In addition, the Commission allows Focus on Energy to include avoided  
15 environmental costs as a benefit when evaluating the cost-effectiveness of their energy  
16 efficiency programs. A 2013 report indicates that the environmental benefits of energy  
17 efficiency in Wisconsin are approximately 48 percent of the avoided electric benefits  
18 (\$141 million / \$ 294 million).<sup>3</sup>

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<sup>2</sup> *Minnesota Value of Solar: Methodology*, Minnesota Department of Commerce, April 1, 2014.

<sup>3</sup> *Focus on Energy Calendar Year 2012 Evaluation Report*, CADMUS, August 28, 2013. Page 52

1

2 **Review of Proposed Changes from a Ratemaking Perspective**

3 **Q. WHY ARE THE COMPANY’S PROPOSED CHARGES FOR CUSTOMER-**  
4 **OWNED GENERATION TARIFFS NOT REASONABLE FROM A**  
5 **RATEMAKING PERSPECTIVE?**

6 A. The charges the Company is proposing for its customer-owned generation tariffs are not  
7 reasonable from a ratemaking perspective for at least four reasons. First, the Company  
8 has not demonstrated that the proposed charges are based on the embedded and the  
9 marginal costs We Energies will incur to serve customers on COGS tariffs. Second, the  
10 Company has not demonstrated that the proposed changes will significantly improve the  
11 accuracy of its price signals. Third, the Company is unfairly discriminating against CGS  
12 customers by proposing these fixed charges to reduce purported subsidization of CGS  
13 customers by non-CGS customers but it is not proposing similar fixed charges to reduce  
14 other subsidization between groups of other customers. Fourth, the Company is unfairly  
15 discriminating against CGS customers by proposing these fixed charges to improve its  
16 recovery of fixed costs from CGS customers but not proposing similar fixed charges to  
17 improve its recovery of fixed costs from non-CGS customers.

18 **Q. ON YOUR FIRST POINT, DOES THE COMPANY PROVIDE ADEQUATE**  
19 **COST OF SERVICE STUDIES TO SUPPORT ITS PROPOSED CHARGES FOR**  
20 **COGS TARIFFS.**

21 A. No. My concern stems from the generally accepted principle of ratemaking that rates for  
22 utility services are reasonable if those rates are based on the cost of providing those  
23 services. Utilities prepare cost of service studies in an attempt to allocate costs to



1 services, and to customer classes taking those services, based on estimates of how each  
2 customer class “causes” the utility to incur the cost of providing each service to that class.  
3 Studies typically analyze the utility’s embedded costs, because those are the costs that  
4 underlie the utility’s revenue requirements. Utilities often also analyze their marginal  
5 costs in order to design rates to provide accurate price signals.

6 **Q. HAS MR. ROGERS PRESENTED COST ANALYSES WHICH DEMONSTRATE**  
7 **THAT THE FACILITY AND DEMAND CHARGES PROPOSED FOR COGS**  
8 **TARIFFS ARE REASONABLE?**

9 A. No. First, Mr. Rogers did not determine the amount of embedded costs to recover from  
10 CGS customers through his proposed facility and demand charges from his cost-of-  
11 service study (COSS). His COSS does not treat, and hence fails to analyze, CGS  
12 customers as a separate class of customers (Ex.-TASC-Hornby- 6). Instead, the COSS  
13 allocates the Company’s embedded costs among its various rate schedules, e.g., RG1,  
14 CG1. For each of those rate schedules the COSS does not estimate the amount of  
15 embedded costs attributable to CGS customers on that rate schedule compared to the  
16 amount of embedded costs attributable to non-CGS customers on that rate schedule.  
17 Mr. Rogers instead developed his proposed facility and demand charges as unit charges  
18 for unbundled customer services and unbundled distribution services using the results of  
19 his COSS. He presents the components of the proposed facility and demand charges for  
20 COGS-NM and COGS-FP on page 2 of Schedule 8 in Ex WEPCO/WG-Rogers-11.  
21 However, Mr. Rogers has failed to demonstrate that those proposed charges will not  
22 over-recover distribution system costs from CGS customers on each rate schedule.

23 **Q. CAN YOU PROVIDE AN EXAMPLE?**

1 A. Consider the following example of an Rg1 customer on CGS 8. Currently that customer  
2 pays his Rg1 facility charge, plus his RG1 energy charge on all energy he consumes.  
3 Under Mr. Rogers' proposal, that customer would continue to pay all those RG1 charges  
4 and, in addition, would pay a COGS-NM facility charge and a COGS-NM demand  
5 charge. Mr. Rogers has failed to demonstrate that, by applying those additional COGS-  
6 NM facility and demand charges the Company would not over-recover its embedded  
7 costs from those customers. This is because Mr. Rogers has not presented analyses of the  
8 revenues the Company is collecting from CGS customers at its current rates, its projected  
9 recovery under proposed rates (Ex-WEPCO/WG-Rogers-15) or how much average bills  
10 of CGS customers will increase under its proposed changes.

11 **Q. ARE THERE CONCERNS REGARDING THE TRANSMISSION AND POWER**  
12 **SUPPLY RESERVE COST COMPONENT OF MR. ROGERS' PROPOSED**  
13 **DEMAND CHARGE?**

14 A. Yes. The transmission and power supply reserve cost component of Mr. Rogers  
15 proposed demand charge is based on We Energies' projected marginal costs of those  
16 resources. While We Energies may claim that they are sending the correct price signal by  
17 using those costs, the fact remains that We Energies is not actually incurring those costs.  
18 Therefore, if it is going to set that component of its demand charge based on marginal  
19 costs, it needs to reduce the other component of its demand charge by the difference  
20 between its marginal cost and its embedded cost. If it does not, it will over-recover its  
21 embedded costs.

22

1 The demand charge Mr. Rogers is proposing has a distribution cost component, discussed  
2 above, and a transmission and power supply reserve cost component. He presents the  
3 development of the transmission and power supply reserve cost component on page 1 of  
4 Schedule 8 in Ex.-WEPCO/WG-Rogers-11. Those proposed transmission and power  
5 supply reserve costs are not actual embedded costs, instead they are projections of the  
6 Company's long-run marginal costs. Thus, Mr. Rogers is proposing a component charge  
7 to COGS customers for costs that the Company is not actually incurring. For example, he  
8 is proposing to charge COGS customers based on a marginal generating capacity cost of  
9 \$81.76 per kW-year when the Company's projections of purchasing capacity from MISO  
10 is \$5.00 per kW-year (Schedule 1, Ex.-WEPCO/WG-Rogers-11).

11 **Q. HAS MR. ROGERS PRESENTED A COST ANALYSES WHICH SUPPORTS**  
12 **THE CAPACITY COSTS HE PROPOSES TO RECOVER FROM CGS**  
13 **CUSTOMERS?**

14 A. No. The Company states that "Wisconsin Electric's entire generation system of over  
15 7,000 MW stands ready to provide back-up for the customers on its CGS tariffs ....  
16 Capacity planning is done on a total system basis" (Ex.-TASC-Hornby-8). The Company  
17 has not prepared any analysis to assign capacity to specific tariffs in order to determine  
18 the annual cost of capacity for a specific group of customers. Thus, We Energies has not  
19 assigned to CGS customers a specific contribution to capacity costs.

20 **Q. HAS WE ENERGIES PREPARED ANY ANALYSIS TO ASSIGN VOLTAGE**  
21 **SUPPORT AND OTHER ANCILLARY SERVICES COSTS TO SPECIFIC**  
22 **TARIFFS IN ORDER TO DETERMINE THE ANNAUL COST OF PROVIDING**  
23 **SUCH SERVICES FOR A SPECIFIC GROUP OF CUSTOMERS?**

1 A. No. The Company asserts that it is providing valuable voltage support and other ancillary  
2 services to CGS customers even when their generation completely offsets their  
3 consumption (Direct-WEPCO/WG-Rogers-54, lines 6 to 8). However, the Company did  
4 not provide the amount it incurs to provide those services to CGS customers (Ex.-TASC-  
5 Hornby- 10).

6 **Q. DO YOU HAVE CONCERNS REGARDING THE BUYBACK RATE MR.  
7 ROGERS IS PROPOSING FOR THE COGS TARIFFS?**

8 A. Yes. Mr. Rogers does not include an avoided generating capacity cost component in his  
9 rate. The absence of this component is based on the Company's position that customer-  
10 owned generation does not reduce the Company's peak demand and hence does not  
11 enable it to avoid costs of generation, transmission or distribution capacity. (Ex.-TASC-  
12 Hornby- 9). The Company states that its position is based upon the 2009 PV value study.

13 **Q. DO YOU AGREE WITH MR. ROGERS INTERPRETATION OF THAT  
14 STUDY'S POSITION REGARDING THE CAPACITY VALUE OF  
15 DISTRIBUTED SOLAR GENERATION?**

16 A. No. That study indicates that distributed solar generation does have generation capacity  
17 benefits.<sup>4</sup> The New York ISO and PJM each credit solar facilities with a capacity value  
18 expressed as a percent of the facility's name-plate or installed capacity. This value is  
19 referred to as effective load carrying capability (ELCC). The New York percentages for  
20 summer capacity are 36% to 42% while the PJM value is 38%.<sup>5</sup> MISO has apparently

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<sup>4</sup> Norris, Benjamin L. et al. PV Value Analysis for We Energies. Clean Power research. October 2009. ES-6

<sup>5</sup> NYISO, "Installed Capacity Manual," May 2014. Page 4-21; PJM, "PJM Manual 21 Rules and Procedures for Determination of Generating Capability," March 2014. Page 19.

1 not yet established an ELCC for solar facilities. However, the 2009 study indicated that  
2 distributed solar generation would enable We Energies to avoid some quantity of  
3 capacity, and thus does have a capacity value.

4 **Q. ON YOUR SECOND POINT, HAS THE COMPANY DEMONSTRATED THAT**  
5 **IMPLEMENTING NEW FACILITY AND DEMAND CHARGES IN COGS**  
6 **TARIFFS WILL MATERIALLY IMPROVE THE ACCURACY OF ITS PRICE**  
7 **SIGNALS?**

8 A. No. The Company has not demonstrated that implementing new facility and demand  
9 charges in COGS tariffs will materially improve the accuracy of its price signals. First,  
10 the Company's proposal implicitly assumes that the rates under its current CGS tariffs do  
11 not accurately reflect its long-run marginal or avoided costs. However, the Company has  
12 not demonstrated the validity of that assumption. Second, if the Company's assumptions  
13 are correct, it is again unfairly singling out CGS customers for new facility and demand  
14 charges but not proposing similar new charges for non-CGS customers.

15 **Q. DO YOU AGREE WITH THE COMPANY'S POSITION THAT SETTING**  
16 **RATES CLOSER TO MARGINAL COSTS INCREASES ECONOMIC**  
17 **EFFICIENCY?**

18 A. Yes. Mr. O'Sheasy presents this position in Ex.-TASC-Hornby- 8. In that response, he  
19 indicates that the Company's rates would send more accurate price signals if they  
20 recovered fixed costs through fixed charges, e.g., facility and demand charges, and  
21 recovered variable cost through volumetric charges, e.g., energy rates. In that response  
22 he also indicates that economic theory says those energy charges should be close to the  
23 Company's marginal cost. However, recognizing that the Company's marginal cost is

1 almost always going to be different from its variable embedded accounting cost, he states  
2 that he is not suggesting that utility energy charges be set exactly at the utility's marginal  
3 cost, either short-run marginal cost (SRMC) or long-run marginal cost (LRMC). The  
4 reason he gives for not going exactly to marginal cost is that rates must enable a utility to  
5 recover its embedded revenue requirements. (The problem with setting energy rates  
6 exactly at marginal cost is that they would either under-recover or over-recover the  
7 utility's variable embedded accounting costs).

8 **Q. IF THE ONLY GOAL OF WE ENERGIES WAS TO PROMOTE ECONOMIC**  
9 **EFFICIENCY WOULD IT SET ITS RATES TO REFLECT ITS LONG RUN**  
10 **MARGINAL COSTS?**

11 A. Yes. We Energies has two types of marginal costs, short-run and long-run. Bonbright has  
12 stated that short-run marginal cost pricing is not appropriate for rate setting. Instead, in  
13 *Principles of Public Utility Rates*, he stated:

14 "I conclude this chapter with the opinion, which would probably represent the  
15 majority position among economists, that, as setting a general basis of minimum  
16 public utility rates and of rate relationships, the more significant marginal or  
17 incremental costs are those of a relatively long-run variety – of a variety which  
18 treats even capital costs or 'capacity costs' as variable costs."<sup>6</sup>

19 Dr. Alfred Kahn, another famous regulatory economist, stated with respect to marginal  
20 costs that:

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<sup>6</sup> James Bonbright, *Principles of Public Utility Rates* (New York: Columbia University Press), 1961 p. 336.

1           What we are trying to measure is how costs will differ, after a span of time  
2           sufficiently long for the system planners to adapt the supplying system to the  
3           change, by virtue of taking on some specified incremental block of sales on a  
4           continuing basis, as compared with not taking it on. Measurement is, to be sure,  
5           another matter. What I suspect we are likely to have, mainly, is a measure of the  
6           average, full additional costs, for all additional sales undertaken on a continuing  
7           basis, over whatever is the reasonable planning period for additions to capacity –  
8           possibly on the order of ten to twelve years for electricity, perhaps three to five  
9           years for communications.<sup>7</sup>

10   **Q.   WHY DO YOU MAINTAIN THAT THE COMPANY’S PROPOSAL TO IMPOSE**  
11   **NEW FACILITY AND DEMAND CHARGES IMPLICITLY ASSUMES THAT**  
12   **RATES UNDER ITS CURRENT CGS TARIFFS DO NOT ACCURATELY**  
13   **REFLECT ITS LONG-RUN MARGINAL COSTS?**

14   A.   The proposal implicitly assumes that rates do not accurately reflect long-run marginal  
15   costs because the company has provided no analysis supporting such an assumption. Mr.  
16   Rogers agrees with Mr. O’Sheasy that the Company’s rates would send more accurate  
17   price signals if they recovered fixed costs through facility plus demand charges and  
18   recovered variable cost through energy rates. One of the primary reasons Mr. Rogers  
19   presents for proposing new facility and demand charges in COGS tariffs is that rates  
20   under the current CGS tariffs do not satisfy that principle. Mr. Rogers apparently

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<sup>7</sup> Alfred Kahn, “Efficient Rate Design: The Transition from Theory to Practice,” in Proceedings of the Symposium on Rate Design Problems of Regulated Industries, Foster Associates and Missouri Public Service Commission, Kansas City, Mo. February 1975, p 39, as quoted in Phillips, Charles F. Jr., The Regulation of Public Utilities (Arlington, VA: Public Utilities Reports, Inc., 1993).

1 assumes that the energy rates in the regular rate schedules, such as Rg1, that CGS  
2 customers avoid paying when they offset their load with their own generation are not  
3 close to the Company's marginal cost.

4  
5 For example, when an RG1 customer on CGS 8 reduces the quantity of energy he or she  
6 buys from the Company by using their own generation, that customer avoids paying the  
7 Company \$0.1390/kWh for that avoided purchase quantity. Mr. Rogers implicitly  
8 assumes that the Company's avoided cost of serving that customer is not \$0.1390/kWh,  
9 but is instead \$0.04245. That lower charge is the buyback rate he is proposing for  
10 COGS-NM. That implicit assumption is the basis for Mr. Rogers' position that rates  
11 under the current CGS tariffs are not sending proper price signals. However, as noted  
12 earlier, Mr. Rogers has not provided an analysis demonstrating that the Company's  
13 LRMC due to customer-owned generation is closer to \$0.04245 than to \$0.1390/kWh.

14 **Q. ON YOUR THIRD POINT, IS THE COMPANY UNFAIRLY SINGLING OUT**  
15 **CGS CUSTOMERS WITH REGARD TO CROSS SUBSIDIES?**

16 A. Yes. The Company is trying to reduce purported cross subsidies unfairly by singling out  
17 CGS customers for new facility and demand charges but not proposing similar new  
18 charges for non-CGS customers.

19 **Q. WHY DO YOU CHARACTERIZE THE CROSS SUBSIDIES AS PURPORTED?**

20 A. I characterize the cross subsidies as purported because there are often differences of  
21 opinion between various parties to utility rate proceedings regarding the calculations  
22 underlying these cross subsidies. Many of these differences in opinion arise from



1           disagreements between parties over the determination of the factor or factors that “cause”  
2           utilities to incur various major costs.

3   **Q.    CAN YOU PROVIDE AN EXAMPLE?**

4   A.    For example, the costs of distribution system feeders are “joint and common” costs.  
5           Feeders provide a connection to every customer, and thus the Company maintains that a  
6           portion of those costs are driven by the number of customers, and feeders enable the  
7           Company to meet the peak demand of each rate class, and thus the Company maintains  
8           that a portion of those costs are driven by the peak demand of each rate class.

9   **Q.    HOW DOES THE COMPANY DETERMINE WHICH PORTION OF FEEDERS**  
10       **COSTS ARE CUSTOMER-RELATED AND WHICH PORTION IS DEMAND-**  
11       **RELATED?**

12  A.    In his COSS Mr. Rogers uses what is referred to as the minimum-size method and  
13           assumes 50 per cent of the costs are customer related and 50 percent are demand related.  
14           However, he states “There are no supporting calculations for the assumption that 50% of  
15           the cost of the minimum-sized conductor is demand-related. We believe the most  
16           appropriate value is somewhere between 0% and 100%.” (Ex.-TASC-Hornby-11). That  
17           response also notes that in the COSS it prepares for its operations in Michigan the  
18           Company does not use the minimum size method. The Company’s response demonstrates  
19           inconsistency and a lack of basis for determining subsidies related to feeders costs.

20  **Q.    DO CROSS SUBSIDIES OCCUR EVEN IF THERE IS GENERAL AGREEMENT**  
21       **ON THE ALLOCATION OF COSTS AMONG RATE CLASSES?**

22  A.    Yes. Cross subsidies occur between rate classes and within rate classes for two main  
23           reasons. First, rates are set for a given rate class to recover the costs allocated to that rate

1 class. Thus some degree of cross subsidization is bound to occur within rate classes  
2 because rates are not set to recover the utility's cost to serve each individual customer.  
3 Second, rates are not always designed exactly or solely to recover the costs allocated to  
4 each rate class. Instead, rates are designed to meet a number of objectives, some of  
5 which are conflicting and require tradeoffs.

6 **Q. WHAT ARE THOSE OBJECTIVES?**

7 A. The Company has identified seven rate design objectives - ensure revenue recovery, send  
8 proper price signals, maintain equity among and between customer classes, maintain rate  
9 stability, ease of understanding, ease of administration, and policy considerations (Ex.-  
10 TASC-Hornby- 12). In that response the Company states it can not necessarily meet all  
11 of these objectives all the time.

12 **Q. DOES THE COMPANY AGREE THAT VARIOUS CROSS SUBSIDIES OCCUR  
13 UNDER ITS CURRENT RATE STRUCTURE?**

14 A. Yes. In Ex.-TASC-Hornby-13 the Company agreed that:

- 15 • Customers in some rate classes are being subsidized in other rate classes as shown  
16 in Ex.-WEPCO/WG-Rogers-12r;
- 17 • Urban customers may be subsidizing rural customers, or vice versa;
- 18 • Low load factor customers may be subsidized by high load factor customers, or  
19 vice versa, depending on the time timing of their peak requirements;
- 20 • Low use customers may be subsidized by high use customers, or vice versa; and
- 21 • Customers who reduce their usage, for whatever reason, may be subsidized by  
22 customers who do not, or vice versa.

1 **Q. HAS THE COMPANY PROPOSED CHANGES IN RATE DESIGN TO**  
2 **SIGNIFICANTLY REDUCE ANY OF THESE OTHER SOURCES OF CROSS**  
3 **SUBSIDIES?**

4 A. No, the Company does not address any other sources of cross subsidies.

5 **Q. HAS THE COMPANY PROVIDED ANY ANALYSES TO DEMONSTRATE**  
6 **THAT THE CROSS SUBSIDIES IT ATTRIBUTES TO CGS CUSTOMERS ARE**  
7 **SIGNIFICANTLY GREATER THAN THE VARIOUS OTHER CROSS**  
8 **SUBSIDIES OCCURING UNDER ITS CURRENT RATE STRUCTURE?**

9 A. No. As noted earlier, the Company has not provided any estimate of the magnitude of the  
10 cross subsidies it attributes to CGS customers. In addition (Ex.-TASC-Hornby-13) in the  
11 Company states that it "...has no estimate of the amounts that any particular groups of  
12 customers are being subsidized by other groups within a given rate class. An estimate of  
13 the level of subsidization between rate classes can be inferred by comparing the results of  
14 the cost-of service study shown in Ex.-WEPCO/WG-Rogers-12r with the proposed  
15 revenue yield shown in Ex.-WEPCO/WG-Rogers-15."

16 **Q. DO THE COMPANY'S PROPOSED COGS TARIFFS SIGNIFICANTLY**  
17 **ADDRESS THE CROSS SUBSIDIZATION ISSUE?**

18 A. No. Ex.-TASC-Hornby-5 presents the level of subsidization between rate classes the  
19 Company referred to in Ex.-TASC-Hornby-13. According to that comparison, the  
20 residential class would receive an annual subsidy of \$48.7 million if the Commission  
21 approves the Company's proposed rates. In comparison, the Company estimates its  
22 proposed facility and demand charges would reduce subsidization of CGS customers by  
23 non-CGS customers by \$116,000. These figures demonstrate that the Company is not

1 working to correct cross-subsidies that are much larger than those purportedly caused by  
2 CGS customers.

3 **Q. ON YOUR FOURTH POINT, IS THE COMPANY UNFAIRLY SINGLING OUT**  
4 **CGS CUSTOMERS WITH REGARD TO THE RECOVERY OF FIXED COSTS?**

5 A. Yes. My fourth major point is that the Company is trying to improve its recovery of fixed  
6 costs unfairly by singling out CGS customers for new facility and demand charges but  
7 not proposing similar new charges for its non-CGS customers.

8 **Q. PLEASE EXPLAIN YOUR POSITION.**

9 A. The Company has expressed concern about its ability to recover its fixed costs from  
10 residential and small commercial rate classes because it currently recovers a significant  
11 portion of the fixed costs allocated to those rate classes through volumetric rates. Mr.  
12 Rogers notes that when customers reduce or offset their own loads with their generation  
13 they reduce their payments to the Company for their use of the distribution system  
14 (Direct-WEPCO/WG-Rogers-53, line 21). This concern about recovery of fixed costs,  
15 often expressed as a problem of “lost revenue” or “revenue erosion”, is neither new nor  
16 unique to We Energies. Electric utilities have been expressing this concern for many  
17 years, certainly since the introduction of energy efficiency as an alternative approach to  
18 meeting customer requirements and more recently since the economic slowdown of the  
19 past several years.

20

21 In fact, prior to submitting its filing in this proceeding, the Company retained Christensen  
22 Associates to examine the issues associated with its pricing structures. Christensen  
23 Associates prepared three reports, one on residential and small commercial rate

1 structures, one on CGS rates and one on selected WE Energies Tariffs. We Energies has  
2 designated the three reports as confidential (Ex.-TASC-Hornby- 14).

3 **Q. WHY IS WE ENERGIES' PROPOSAL TO IMPOSE DEMAND CHARGES**  
4 **ONLY ON CGS CUSTOMERS NOT EQUITABLE?**

5 A. We Energies proposal is discriminatory. If the Company does have a legitimate concern  
6 about its ability to recover fixed costs allocated to the residential and small commercial  
7 rate classes, it should be proposing initiatives covering all of those customers and not just  
8 those who are on CGS tariffs.

9 **Q. WILL WE ENERGIES' PROPOSAL RESULT IN DISPARATE TREATMENT**  
10 **OF CUSTOMERS IN THE SAME RATE CLASS?**

11 A. Yes. Customers with customer-owned generation in a given rate class will have to pay  
12 facility and demand charges in addition to the charges they already pay under their  
13 regular rate schedule. Thus, in total, they will be paying charges above and beyond the  
14 charges being paid by customers in the same rate class that do not have customer-owned  
15 generation.

16 **Q. WILL THE NEW COGS CHARGES WE ENERGIES' IS PROPOSING HELP IT**  
17 **REDUCE ITS LOST REVENUE PROBLEM IN ANY MATERIAL WAY?**

18 A. No. As noted earlier, even if the Commission approved the Company's proposed facility  
19 and demand charges for its COGS tariffs, the additional \$116,000 of fixed costs the  
20 Company would recover would be de minimus relative to the \$451 million in customer  
21 and demand related distribution costs it has allocated to the "small class" as reported on  
22 Schedules 32 and 33 of Ex.-WEPCO/WG\_Rogers-12r. That amount is also minimal

1 relative to the annual amount of fixed costs, or lost revenues, the Company experiences  
2 as a result of customer implementation of energy efficiency measures.

3 Q. **DO OTHER SOLUTIONS EXIST TO ADDRESS THIS FIXED COST**  
4 **RECOVERY ISSUES WITHOUT DISCRIMINATING AGAINST CUSTOMER**  
5 **OWNED GENERATION?**

6 A. Yes. The Company could have proposed minimum bills or new demand charges for its  
7 entire residential and small commercial rate classes. Or We Energies could have  
8 proposed other initiatives such as revenue decoupling. The Company states that it has  
9 never seriously considered revenue decoupling because Wisconsin has forward looking  
10 test years (Ex.-TASC-Hornby-15). If the Company has not proposed any of these  
11 initiatives, it cannot be seriously concerned about its ability to recover fixed costs from  
12 residential and small commercial rate classes.

13 Q. **DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

14 A. Yes.

Ex.-TASC-Hornby-1

## **James Richard Hornby, Senior Consultant**

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### **PROFESSIONAL EXPERIENCE**

**Synapse Energy Economics, Inc.**, Cambridge, MA. *Senior Consultant*, 2006 – present.

Provides analysis and expert testimony regarding planning, market structure, ratemaking and supply contracting issues in the electricity and natural gas industries. Planning cases include evaluation of resource options for meeting tighter air emission standards (e.g. retrofit vs. retire coal units) in Kentucky, West Virginia and U.S. Midwest as well as development of long-term projections of avoided costs of electricity and natural gas in New England. Ratemaking cases include electric utility load retention rate in NS, various gas utility rate cases and evaluation of proposals for advanced metering infrastructure (smart grid or AMI) and dynamic pricing in MD, PA, NJ, AR, ME, NV, DC and IL.

**Charles River Associates (formerly Tabors Caramanis & Associates)**, Cambridge, MA. *Principal*, 2004 – 2006, *Senior Consultant*, 1998 – 2004.

Expert testimony and litigation support in energy contract price arbitration proceedings and various ratemaking proceedings. Productivity improvement project for electric distribution companies in Abu Dhabi. Analyzed market structure and contracting issues in wholesale electricity markets.

**Tellus Institute**, Boston, MA. *Vice President and Director of Energy Group*, 1997 – 1998. *Manager of Natural Gas Program*, 1986 – 1997.

Presented expert testimony on rates for unbundled retail services, analyzed the options for purchasing electricity and gas in deregulated markets, prepared testimony and reports on a range of gas industry issues including market structure, strategic planning, market analyses, and supply planning.

**Nova Scotia Department of Mines and Energy**, Halifax, Canada.

*Member*, Canada-Nova Scotia Offshore Oil and Gas Board, 1983–1986.

*Assistant Deputy Minister of Energy*, 1983–1986.

*Director of Energy Resources*, 1982-1983.

*Assistant to the Deputy Minister*, 1981-1982.

**Nova Scotia Research Foundation**, Dartmouth, Canada. *Consultant*, 1978–1981.

### **EDUCATION**

**Massachusetts Institute of Technology**, Cambridge, MA  
Master of Science in Energy and Technology Policy, 1979

**Dalhousie University**, Nova Scotia, Canada  
Bachelor of Engineering, Industrial Engineering, 1973. Distinction.



Ex.-TASC-Hornby-2

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**Number of CGS customers by Rate Class as of June 2013**


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Type	Class RG1	Class RG2	Class CG1	Class CG2	Class CG3	Class Other	Total
CGS2	8	0	1	0	0	0	9
CGS4dem	0	0	0	2	2	0	14
CGS4	0	0	5	0	0	5	
CGS6	153	68	46	2	0	38	341
CGS6dem	0	0	0	19	15	0	
CGS8dem	0	0	0	3	0	0	103
CGS8	68	25	6	0	0	1	
Total	229	93	58	26	17	44	467

Sources I-TASC-33, I-RENEW-RFP-6

## WE ENERGIES STATISTICS BY RATE CLASS FOR TY 2016

All Customers	Unit	RG1	RG2	CG1	CG2	CG3	Total
	# customers by rate class	customers	977,304	21,196	90,206	8,953	6,032
Annual energy by rate class	MWh	7,602,065	305,454	1,670,893	1,524,217	5,397,354	16,499,983
Average annual energy/customer	kWh per customer	7,779	14,411	18,523	170,247	894,787	14,950
Annual revenues by rate class	\$	\$ 1,157,753,028	\$ 39,176,733	\$ 243,768,559	\$ 196,963,689	\$ 584,911,954	2,222,573,963
Average annual revenue/customer	\$/customer	\$ 1,185	\$ 1,848	\$ 2,702	\$ 22,000	\$ 96,968	\$ 2,014

CGS Customers - net metered	Unit	RG1	RG2	CG1	CG2	CG3	Total
	# customers by rate class	customers	NM & DG 219	NM & DG 92	NM & DG 54	NM & DG 20	NM & DG 15
Annual energy by rate class	MWh	2,095	874	1,774	2,978	8,919	16,640
Average annual energy/customer	kWh per customer	9,564	9,501	32,848	148,883	594,632	47,803
Annual revenues by rate class	\$	\$ 53,021	\$ 24,004	\$ 32,707	\$ 3,728	\$ 3,107	\$ 116,567
Average annual revenue/customer	\$/customer	\$ 242	\$ 261	\$ 606	\$ 186	\$ 207	\$ 291

CGS Customers - net metered as % of all Customers		RG1	RG2	CG1	CG2	CG3	Total
# customers by rate class		0.022%	0.434%	0.060%	0.223%	0.249%	0.036%
Annual energy by rate class		0.028%	0.286%	0.106%	0.195%	0.165%	0.101%
Average annual energy/customer		122.96%	65.93%	177.33%	87.45%	66.46%	
Annual revenues by rate class		0.005%	0.061%	0.013%	0.002%	0.001%	0.005%

### SOURCES

I-TASC-33, I-RENEW-RFP-6, 2-CUB-Inter-3b, 2-CUB-RFP-9 (Rogers 15), I-TASC-1b

Ex.-TASC-Hornby-3

<b>Summary of Proposed Changes in tariffs for customer owned generation</b>		
<b>Existing Tariffs (1)</b>	<b>Proposed (2)</b>	<b>Major Proposed Mandatory Changes</b>
Net metering: CGS-2, CGS-4, CGS-6, CGS-7, CGS-8 Experimental Buy-back: CGS-PV	COGS – Net Metered (NM)	<ul style="list-style-type: none"> <li>• Facilities charge</li> <li>• demand charge based on name-plate capacity of on-site generator</li> <li>• demand charge recovers costs of distribution incremental to facilities charge</li> <li>• demand charge recovers stand-by generation</li> <li>• buyback rate linked to LMP plus avoided transmission costs (3)</li> </ul>
Existing customers who elect this tariff and customers not on a tariff with acknowledgement ltrs	COGS – Non Purchase (NP)	<ul style="list-style-type: none"> <li>• demand charge based on name-plate capacity of on-site generator</li> <li>• demand charge recovers costs of distribution incremental to facilities charge</li> <li>• demand charge recovers stand-by generation</li> <li>• buyback rate linked to LMP plus avoided transmission costs (4)</li> </ul>
Buy-back: CGS-1; CGS-3, CGS-5	COGS – Direct Sale (DS)	<ul style="list-style-type: none"> <li>• two meter requirement</li> <li>• buyback rates linked to LMP plus avoided transmission costs (5)</li> </ul>
Stand-by Cp4	Stand-By	<ul style="list-style-type: none"> <li>• Mandatory for customers with generation greater than 300 kW who supply more than 35% of onsite load.</li> <li>• Customer demand charge – recovers distribution costs per total consumption</li> <li>• Reserved demand charge – recovers marginal generation and transmission capacity costs per lesser of total demand or total generation capacity</li> <li>• Energy-charges when company supply exceeds customer total demand less reserved capacity, i.e. variable energy costs only (6)</li> </ul>

1. Rogers pages 51 to 53
2. Rogers page 55 ln 3 to 23
3. Rogers page 56 ln 8 to page 57 ln 15, page 58
4. Rogers page 57 ln 16 to page 57 ln 4
5. Rogers page 58 ln 20 to page 60 ln 5
6. Rogers page 60 ln 21 to page 62 ln 5

Ex.-TASC-Hornby-4

**WE Energies estimate of Revenues from Proposed Facility  
and Demand Charges**

Class	Demand Charge \$	Facility Charge \$	Total
Rg1	\$44,342	\$8,679	\$53,021
Rg2	\$20,358	\$3,646	\$24,004
Cg1	\$29,338	\$3,369	\$32,707
Cg2	\$0	\$3,728	\$3,728
Cg3	\$0	\$3,107	\$3,107
<b>Total</b>	<b>\$94,038</b>	<b>\$22,529</b>	<b>\$116,567</b>

Source

Response to 1-TASC-1b

Ex.-TASC-Hornby-5



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**We Energies Proposed Cross Subsidies by Rate Class**


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Rate Class	Revenue Requirement per COSS (1, 2)	Proposed Revenues (1, 3)	Cross Subsidy Received (Provided) \$	Cross Subsidy Received (Provided) %
	a	b	c = a - b	d = c / a
Res Flat	\$1,254,252,001	\$1,205,559,909	\$48,692,092	4%
Res TOU	\$38,118,169	\$42,372,838	-\$4,254,669	-11%
GS Small Flat	\$227,482,974	\$242,060,322	-\$14,577,349	-6%
GS Small TOU	\$15,381,010	\$16,932,275	-\$1,551,265	-10%
GS Med	\$182,748,797	\$203,111,921	-\$20,363,124	-11%
CS Large	\$576,380,621	\$583,793,543	-\$7,412,922	-1%
Primary	\$630,150,838	\$623,415,399	\$6,735,439	1%
SLO	\$22,408,432	\$29,675,044	-\$7,266,612	-32%
Total	\$2,946,922,841	\$2,946,921,251		

## Sources

- 1 Response to 1-TASC-3b
- 2 Exhibit Rogers-12r Schedule 25
- 3 Exhibit Rogers-15 Schedule 1

**VIA ELECTRONIC FILING**

August 28, 2014

The Honorable Michael E. Newmark, Administrative Law Judge  
Commission Staff  
Public Service Commission of Wisconsin  
P.O. Box 7854  
Madison, WI 53707-7854

**RE: TASC Exhibits in Prehearing Testimony in Docket No. 5-UR-107:  
Application of Wisconsin Electric Power Company And Wisconsin Gas LLC, both  
d/b/a We Energies, For Authority to Adjust Electric, Natural Gas, and Steam Rates**

Dear ALJ Newmark and Commission Staff:

Per Section IV.4.c of the Prehearing Conference Memorandum in Docket No. 5-UR-107,  
TASC offers the following documents as exhibits in its direct testimony:

TASC Exhibit Number	Document	PSC REF #
Ex.-TASC-Friedman-4	1-TASC-38	213929
Ex.-TASC-Hornby-7	1-TASC-1b	213944
Ex.-TASC-Hornby-8	1-TASC-4	213896
Ex.-TASC-Hornby-9	1-TASC-18	213909
Ex.-TASC-Hornby-10	1-TASC-35	213927
Ex.-TASC-Hornby-11	1-TASC-26	213918
Ex.-TASC-Hornby-12	1-TASC-30	213923
Ex.-TASC-Hornby-13	1-TASC-3	213895
Ex.-TASC-Hornby-14	1-TASC-36 (public version)	214077
Ex.-TASC-Hornby-15	1-TASC-9	214033
Ex.-TASC-Hornby-16	1-TASC-33	214108

Please contact me with any questions or concerns.

Sincerely,



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