

**BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN**

Application of Wisconsin Public Service
Corporation for Authority to Adjust Electric
and Natural Gas Rates

Docket No. 6690-UR-121

**DIRECT TESTIMONY OF MICHAEL J. VICKERMAN
ON BEHALF OF RENEW WISCONSIN**

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

2 A. My name is Michael J. Vickerman. I am the Program and Policy Director of RENEW
3 Wisconsin (RENEW). RENEW is a membership organization founded in 1991 that leads
4 and represents businesses, organizations, and individuals who seek more clean renewable
5 energy in Wisconsin. RENEW is located at 222 S. Hamilton St., Madison WI 53703.

6
7 **Q. Please describe your professional qualifications.**

8 A. Under my direction RENEW has advocated and mobilized political support for several
9 pro-renewable policies adopted in the last 13 years, including the adoption in 2009 of
10 uniform permitting standards for wind projects (SB 185) as well as the establishment in
11 1999 of Wisconsin's Renewable Portfolio Standard and a public benefits fund dedicated
12 in part to renewable energy sources. I have been involved with many issues relating to
13 renewable electricity, ranging from broad policy mandates and customer-driven green
14 pricing programs to such technical issues as renewable energy credit trading and wind
15 power permitting ordinances. I was RENEW's representative on the statewide Task
16 Force on Energy Efficiency and Renewables which Governor Doyle convened in

1 September 2003, and served as co-chair of the Renewables Workgroup. In that capacity I
2 developed and negotiated several renewable energy policy recommendations for
3 consideration by the full Task Force. These were: (1) a successor Renewable Portfolio
4 Standard (RPS) that would result in a 10% renewable energy content by 2015 and (2) a
5 State of Wisconsin commitment to source 20% of the electricity it uses from renewable
6 energy sources. Both recommendations were included in a consensus package of
7 proposed policy changes that were subsequently incorporated into a bill (SB 459) that
8 passed the Legislature and was signed into law in March 2006 (2005 Act 141).

9
10 RENEW Wisconsin also spearheaded the Wind for Wisconsin coalition whose campaign
11 to establish uniform siting standards for wind energy systems resulted in the passage of
12 2009 Act 40. I am a member of the Wind Siting Council, a stakeholder body convened by
13 the Public Service Commission of Wisconsin (“Commission”) to provide input and
14 advice to the agency in shaping a statewide wind siting rule as required by 2009 Act 40.

15
16 I have testified in several Commission proceedings in recent years, including We
17 Energies’ applications to build its Blue Sky Green Field wind energy installation (6630-
18 CE-294), its Glacier Hills wind energy installation (6630-CE-302), and its Rothschild
19 Biomass generation installation (6630-CE-305); Northern States Power-Wisconsin’s
20 application to convert its Bay Front 5 generator into a dedicated biomass unit (4220-CE-
21 169); Wisconsin Power & Light’s application to build the Nelson Dewey 3 coal-fired
22 power station (6680-CE-170) and its Cedar Ridge wind energy installation (6680-CE-
23 171); Forward Wind Energy’s application to build a 200 MW wind energy installation

1 (9300-CE-100); Wisconsin Public Service Corporation's 2005, 2006, 2008, and 2010 rate
2 cases (6690-UR-117, 6690-UR-118, 6690-UR-119, and 6690-UR-120); Wisconsin Power
3 & Light's 2005, 2006 and 2008 rate cases (6680-UR-114, 6680-UR-115 and 6680-UR-
4 116); We Energies' 2005 and 2007 rate cases (05-UR-102 and 05-UR-103); and Madison
5 Gas & Electric's 2010 rate case (3270-UR-117).

6
7 **Q. What is the purpose of your testimony?**

8 A. The purpose of my testimony is to present information on the net metering tariff (Pg-4)
9 proposed by Wisconsin Public Service Corporation (WPS). My testimony will examine
10 the terms of service in WPS's Pg-4 rate as presently configured and compare it with other
11 net metering rates in effect. My testimony will also examine changes in the terms of
12 service proposed by WPS and compare them with current practices with other utilities
13 regulated by the Commission. My testimony contains recommendations for aligning
14 WPS's net metering tariff with the best practices offered by other utilities, as part of an
15 overall effort to establish a consistent set of rules and terms for prospective customer-
16 generators in Wisconsin.

17
18 **Q. What is RENEW's interest in this proceeding?**

19 A. Net metering has been a high priority for our organization since our founding in 1991 and
20 our intervention that year in Advance Plan 6, in which we advocated for requiring all
21 regulated utilities to provide net metering service to its customers. We see net metering as
22 an effective mechanism for leveraging cost-effective investments in small-scale
23 renewables, providing increased generation of renewable energy as well as distribution

1 and capacity benefits without a cost to ratepayers. To do this in the most efficient and
2 non-discriminatory manner, each of the individual investor owned utilities' net metering
3 offerings should be as similar as possible.

4
5 RENEW is a member of the Grow Solar Wisconsin team, one of 22 teams in the United
6 States participating in the Rooftop Solar Challenge organized and supported by the U.S.
7 Department of Energy (DOE). The Challenge is part of the DOE's SunShot Initiative,
8 which seeks to make solar electricity cost-competitive without subsidies by the end of the
9 decade. Net metering policy is a critically important aspect of Wisconsin's solar energy
10 policy since customers, not utilities, have driven the vast majority of grid-tied solar
11 electric installations in this state.

12
13 The criteria determining the model outlined in this testimony emerged from a 2011 report
14 titled "*Freeing the Grid: Best Practices in State Net Metering Policies and*
15 *Interconnection Procedures*," prepared for the National Renewable Energy Laboratory.
16 The authors of that report also published a Wisconsin-specific analysis of net metering
17 policies in October 2011. Though some of the net metering recommendations in *Freeing*
18 *the Grid* are broad in nature and may require legislation, there are several issues that can
19 be appropriately addressed in utility rate proceedings.

20
21 **Q. What percentage of net metered generation could be supplied by solar electric**
22 **facilities for new net metering customers under WPS's Pg-4 rate, if appropriate net**
23 **metering provisions are included?**

1 A. As the cost of solar modules and balance-of-system equipment continues to decline, the
2 economic rationale for adding solar to one's house, business or farm in Wisconsin will
3 continue to improve. Another factor in solar energy's favor is that its generation profile
4 relative to seasonal load patterns fits better with a two-part net metering rate structure
5 than wind does. For those reasons, solar energy could constitute at least 75% of new net
6 metered energy in Wisconsin and could surpass 90%. Therefore, it makes sense to
7 analyze net metering practices with the assumption that solar energy will be the chief
8 beneficiary of a rate structure based on "best practices." It is also reasonable to assume
9 that WPS will derive benefits from net metering customers based on the value of solar
10 PV generation, including its generation profile that corresponds with peak energy demand
11 hours and months.

12
13 **Q. Has the Commission ever adopted a net metering policy applicable to all regulated**
14 **utilities?**

15 A. Yes. In its Advance Plan 6 Order (05-EP-6) issued 20 years ago, the Commission
16 required regulated utilities to offer net metering for renewable energy systems up to 20
17 kilowatts. The September 1992 order states that "the utilities shall reestablish net energy
18 billing in their next rate cases, where it is not offered now, for customer-owned
19 renewable energy resource generators under 20 kW." (1992 Order, Conclusion of Law
20 4.4 at p. 115). In setting forth this requirement, the Commission noted that "[n]et energy
21 billing will tend to promote small-scale renewable energy resources." (p. 24)

22
23 **Q. Are there any deficiencies in WPS's current net metering service?**

1 A. Yes. WPS's current tariff structure is problematic because it specifies both a two-tier
2 structure and a monthly netting period. Under its tariff, WPS credits generation up to the
3 customer's consumption each month at the retail rate and credits excess generation at its
4 avoided cost rate. However, instead of carrying forward excess generation over a 12-
5 month netting period, WPS performs a true-up each month and credits the customer-
6 generator for both the output that offsets consumption and any excess generation that
7 occurred that month. While the practice of monthly netting is appropriate in a tariff that
8 credits all kilowatt-hours (kWh) produced at the retail rate, such as Wisconsin Power &
9 Light's current net metering tariff, it effectively penalizes new WPS system owners for
10 seasonal swings in both internal consumption and generation output. The problem
11 worsens as system output approaches on-site consumption on an annual basis. In the case
12 of solar generation, output peaks in the summer, in close correspondence with utility peak
13 loads, and declines in the winter. However, as can be demonstrated by using National
14 Renewable Energy Laboratory's PVWatts Calculator, the productivity of a solar electric
15 system is nearly as great during certain shoulder season months (March, April, May, and
16 September) as it is in mid-summer. Those are the months that tend to correspond with
17 seasonally induced reductions in monthly electricity usage. This seasonal mismatch
18 between output and consumption sets up the possibility that in certain months, especially
19 during the shoulder season, a portion of a customer-generator's output will be credited at
20 the utility's avoided cost rate. This mismatch also occurs in summer months for
21 customers with moderate summer loads. This can easily occur with solar electric systems
22 that are sized to offset more than 50% of the host's customer's average annual
23 consumption.

1
2 **Q. How does that practice affect the savings to a customer from a solar electric system?**

3 A. We can illustrate this phenomenon by using the PVWatts Calculator on the National
4 Renewable Energy Laboratory's web site. In the table below, Column A lists the months
5 in a year. Column B represents average monthly output from a 4 kW (DC) solar electric
6 system. These numbers are derived from a PVWatts calculation of a 4 kW system located
7 in Green Bay, which is designated as Ex.-RENEW-Vickerman-1. (Note that for the
8 months of December, January and February, I reduced kWh production by 10% to
9 account for snow shading, thereby reducing the system's average annual output to 4,730
10 kWh.) The average annual output from a 4kW solar electric system at that location
11 should range between 4,500 to 4,900 kWh, making it a reasonable fit for a household
12 using 5,000 kWh a year. Column C illustrates the seasonal swings in monthly
13 consumption at a household using 5,000 kWh/year. Column D shows the amount of
14 solar-generated kWh in a month in which output typically exceeds consumption.

A (Month)	B (Output)	C (Consumption)	D (Excess)
January	307	450	--
February	350	450	--
March	485	350	135
April	468	300	168
May	495	350	145
June	463	500	--
July	492	600	--
August	436	550	--

September	387	350	37
October	376	300	76
November	238	350	--
December	233	450	--
Total	4,730	5,000	561

Of the 4,730 kWh produced by this reference solar electric system, 4,169 kWh would be credited at WPS's retail rate, while 561 kWh, or 11.8%, would be credited at WPS's avoided cost rate. As with other utilities, there is approximately a 4:1 ratio between WPS's retail energy rate and its avoided cost rate. WPS's energy rate is currently about 13 cents/kWh and its avoided cost rate is about 3.25 cents/kWh, for a difference of 9.75 cents/kWh. This amounts to a reduction in annual savings of nearly \$55 in 2012, which effectively lengthens the payback period of this system by 10%. No other net metering customer in Wisconsin experiences the same economic disincentive that confronts prospective WPS customer -generators.

Q. Among utilities that offer a two-tiered net metering rate, do any of them carry forward excess generation over a 12-month period?

A. The other utilities that presently offer net metering under a two-tiered rate are Northern States Power-Wisconsin (NSPW) and Madison Gas & Electric (MGE). Like WPS, NSPW and MGE offer net metering for renewable energy systems up to 100 kW. Unlike WPS, these two utilities true up a customer-generator's output over a 12-month period.

1 The Commission approved NSPW's and MGE's use of annual true-up process in their
2 most rate cases.

3
4 In its pending rate case, Wisconsin Electric Power Company (WEPCO) proposed
5 numerous changes to its net metering service, including a shift to a two-tiered rate
6 structure and a 12-month carryover for excess generation. If the Commission approves
7 those elements in WEPCO's proposed net metering service, WPS will be the sole outlier
8 in this regard among utilities offering a two-tiered net metering service.

9
10 **Q. What is the practical effect of WPS's monthly true-up policy to prospective**
11 **customer-generators and the solar marketplace in Wisconsin?**

12 A. There are several detrimental effects stemming from WPS's current treatment of excess
13 generation. One immediate impact is to force installers and customer-generators to
14 downsize solar electric systems to minimize instances where generation is credited at the
15 avoided cost rate. Determining this involves the customer acquiring years of usage data
16 from the utility, perhaps involving additional time on the part of the utility for years
17 beyond the one or two that may be available online or for those customers that do not
18 have online usage data access. This data is required to evaluate average and low monthly
19 usage to quantify production that would be compensated at a lower rate. While a
20 household in Eau Claire or Madison would consider a 4 kW solar electric system to be a
21 cost-effective option for offsetting an annual load of 5,000 kWh, a similar household in
22 WPS territory would need to downsize system capacity by 50% to ensure full retail
23 crediting in the high output/low consumption months. The result of such downsizing is

1 to reduce annual production by an average of 40% across all 12 months, including the
2 summer months, when electricity consumption and wholesale electricity prices reach
3 their highest levels in a given year. Being the sunniest months in the calendar year, June,
4 July and August are also the months when solar electric systems are operating at their
5 annual maximum, either contributing electricity to the grid or offsetting consumption on-
6 site. WPS's treatment of net excess generation discourages customers from investing in a
7 renewable energy technology that contributes to system reliability at times when grid-
8 supplied energy is at its most expensive.

9
10 All other things being equal, WPS's policy on net excess generation imposes a penalty on
11 prospective system owners that customers in Eau Claire or Madison do not experience.
12 This is a problem that Focus on Energy, the statewide program supporting customer use
13 of energy efficiency and renewable energy, cannot rectify through a special incentive
14 available only to customers of one utility. A large part of the rationale for establishing a
15 statewide renewable energy program was to standardize incentive offers between one
16 utility service territory and the next, and to keep balkanization of emerging renewable
17 energy markets to a minimum. As one would expect in a statewide program funded
18 through utility rates, the solar energy incentives available to one utility's customers are
19 no greater or lesser than those offered to customers of other participating utilities. It is
20 highly unlikely, too, that Focus on Energy would increase the size of a solar incentive
21 across-the-board to compensate for a punitive net metering practice that no other utility
22 imposes on its customers.

1 **Q. Would downsizing a solar electric system from 4 kW to 2.66 kW result in a one-**
2 **third reduction in its installed cost?**

3 A. No. The cost of the solar modules, which is the most scalable component of a solar
4 electric installation, is not the only cost driver at work here. Other cost categories include
5 balance-of-system equipment, labor and permits. The labor requirements involved in
6 securing permits from land use bodies and engineering departments, let alone preparing
7 applications to interconnect with a utility or to receive Focus on Energy incentives, do
8 not necessarily lessen with the downsizing of a solar installation. The installation
9 contractor must also be present during any acceptance testing performed by the local
10 utility. Therefore, a policy that has the effect of arbitrarily reducing optimal installation
11 size relative to a customer's internal consumption has the perverse effect of increasing
12 the unit costs of that system. While WPS's policy on net excess generation is not the
13 only reason why solar installation activity in its territory has waned since it implemented
14 monthly netting on April 1, 2011, it is a significant contributor to this slowdown.

15
16 **Q. What is your recommendation to the Commission regarding WPS's treatment of net**
17 **excess generation under its Pg-4 tariff?**

18 A. RENEW requests that WPS be required to carry forward excess energy generation over a
19 12-month true-up period, consistent with the current practice at NSPW and MGE.
20 NSPW's annual netting process period occurs within a fixed 12-month period, while
21 MGE uses a 12-month rolling average of customer consumption to determine the
22 crediting of generator output each month. Both approaches, in RENEW's view, are

1 practical and reasonable. Annual netting should be offered to all existing customer-
2 generators who took service under the Pg-4 tariff after March 31, 2011.

3
4 **Q. What impact would that proposal have on WPS's revenues?**

5 A. On an individual system basis, switching from a monthly netting policy to a 12-month
6 netting policy would result in an increase in kWh credited at retail and a decrease in kWh
7 credited at WPS's avoided cost rate. I do not have enough information to estimate the
8 impact from that change on net metered generation installed between April 1, 2011 and
9 the present. However, I can provide a framework for estimating the impact on revenues
10 from net metered systems that begin operation in 2013 and 2014. We can start by
11 making several assumptions:

12 (1) solar will account for more than 90% of the kWh from new net metered
13 generation sources added in 2013 and 2014;

14 (2) net annual additions of solar capacity in a calendar year will be 150 kW
15 (representing WPS's pro rata share of a 1 MW/year increase statewide);

16 (3) the percentage of output that will be credited at the retail rate instead of the
17 avoided cost rate will range between 10% and 20%;

18 (4) the difference between the full retail rate and WPS's avoided cost rate will be
19 10 cents/kWh; and

20 (5) the median start date for all net metered generation sources added in each of
21 the next two years will be July 1 of the year the system was installed.

1 With those assumptions, we can perform the calculations for 2013. One hundred fifty
2 kW of solar should produce 180,000 kWh annually. Dividing that total in half to account
3 for the July 1st start date results in 90,000 kWh in the first year. Ten percent of that total
4 is 9,000 kWh and 20% is 18,000 kWh. Multiplying those totals by 10 cents/kWh results
5 in a range of \$900 and \$1,800 for 2013. Performing the same calculation for 2014 and
6 adding a full year's impact from solar systems interconnected in 2013 results in a
7 cumulative impact ranging from \$3,600 (\$900 + \$900 + \$1,800) to \$7,200 (\$1,800 +
8 \$1,800 + \$3,600).

9
10 I would characterize the rate impact from changing the true-up period from one month to
11 12 months as *de minimis*. However, it cannot be overemphasized that other utilities
12 offering a two-tiered net metering rate have folded this component into the basic cost
13 structure that comes with this particular tariff design. In contrast, WPS has required
14 individual customer-generators to absorb this cost component cost since April 1, 2011.
15 On this particular aspect of net metering, WPS is the outlier here among Wisconsin
16 utilities.

17
18 **Q. WPS determines the avoided cost portion of the Pg-4 tariff on the basis of LMP.**
19 **Does that approach capture the full array of costs avoided by a distributed**
20 **generation system?**

21 A. No. We disagree with the notion that the LMP represents the full avoided cost of energy.
22 It is only the avoided fuel and variable cost of energy. It does not include "capacity,"
23 which represents the cost of constructing and maintaining generation assets. The cost of

1 adding capacity is a costly endeavor and far exceeds the LMP from that generation asset.
2 It has been the Commission's long-time policy to calculate avoided cost of electricity
3 production based on the short-term energy cost (LMP) plus the levelized cost of a
4 combustion turbine. If the cost of the latter were estimated at \$0.024/kWh, it must at a
5 minimum calculate the avoided cost as LMP + \$0.024/kWh).

6
7 Further, the output from net metering customer-generators is delivered to the distribution
8 system primarily during peak periods, thereby avoiding transmission charges. The
9 avoided use of transmission capacity is not reflected in LMP costs. If that cost were
10 estimated at two cents/kWh, then the avoided cost used for net metering customer-
11 generators should include that cost estimate to account for the avoided use of
12 transmission capacity.

13
14 **Q. WPS blends on-peak and off-peak rates to calculate the avoided cost portion of its**
15 **net metering tariff. Does that method properly capture solar's contribution to peak?**

16 **A.** No. Most of the new generation taking service under the Pg-4 rate will be derived from
17 solar, and solar production corresponds favorably with system peak. Therefore, to use
18 average LMP, which includes nighttime hours, is to discount the contribution to peak that
19 solar electricity provides. As indicated in the aforementioned PVWatts calculation, solar
20 produces above the annual average from March to September, with the three most
21 productive months being June, July and August. Therefore, if the Commission uses the
22 LMP for the energy portion, it should weigh monthly and seasonal output so that the

1 LMP more accurately accounts for actual kWh production by month as opposed to using
2 an average value that discounts solar's contribution to peak.

3
4 **Q. What other recommendations do you have regarding WPS's current net metering**
5 **service?**

6 A. RENEW requests the insertion of a sentence in the tariff sheet that states: "Customer
7 shall retain all renewable credits and other attributes associated with the energy provided
8 to the Company pursuant to this tariff." The purpose of this language is to disclose to the
9 customer that he or she retains possession of all renewable credits and attributes
10 associated with the renewable energy provided to the utility. This language already
11 appears in NSPW's net metering tariff sheet. In its current rate case, MGE proposes to
12 insert similar language in its net metering tariff sheet.

13
14 **Q. What is RENEW's position on WPS's proposed changes to its Pg-4 tariff?**

15 A. WPS proposes to modify the grandfathering clause available to customer generators who
16 took service under the Pg-4 rate prior to March 31, 2011. Specifically, it proposes to limit
17 the grandfathering clause to only those customers who have not exceeded their normal
18 load by 200%. Customer-generators whose output does not exceed 200% of normal
19 annual load would continue to sell excess energy back to WPS at retail until December
20 31, 2021. Customer-generators whose output exceeds 200% of normal annual load will
21 be fully exposed to the two-tiered rate structure in Pg-4.

1 RENEW strongly opposes the 200% threshold for grandfathering older customer-
2 generators. The proposed 200% percent threshold is no way connected to any material
3 feature in the net metering tariff in place when these customer-generators began
4 producing electricity. The previous net metering tariff did not specify any kind of ratio
5 between generator output and customer load. Customer-generators whose output was
6 more than double their load were as much in full compliance with the terms and
7 conditions specified in the previous tariff as those whose output was less than double
8 their load. WPS's proposed 200% threshold for grandfathering customer-generators
9 strikes RENEW as an after-the-fact construct intended to penalize a minute subset of
10 customer generators who did nothing to deserve the serious economic penalty that WPS
11 proposes to inflict on them. Not only is this proposal arbitrary, discriminatory and
12 unnecessarily punitive, it undermines customer confidence in the durability of any net
13 metering arrangement going forward. None of the other utilities that have moved to a
14 two-tiered net metering rate structure have proposed changing the terms of service with
15 the subset of customer generators who took service prior to the transition. Nor has
16 Wisconsin Electric Power Company proposed anything like this in its pending rate case.
17 Customer generators must be treated fairly by ensuring that they have the option to utilize
18 net metering tariffs and practices that were in place at their utility at the time of their
19 system interconnection.

20
21 **Q. How should WPS treat these older customer generators?**

22 A. RENEW recommends that WPS create a separate tariff for all customer-generators who
23 took service prior to March 31, 2011. The new tariff should replicate the terms and

1 conditions that had been in place prior to March 31, 2011, with the addition of one
2 sentence that states: "This tariff is closed to new accounts." As long as they remain
3 compliant with that service, the utility should continue to credit all kWh produced by this
4 set of customer generators at the retail rate.

5
6 **Q. WPS witness Ronda Ferguson states that "WPSC has seen a significant increase in**
7 **customer sign-ups for the net energy billing program and is expecting this to**
8 **increase in the years to come." (Direct-WPSC-Ferguson-32, ll. 5-6). Do you agree**
9 **with this assessment?**

10 A. RENEW disagrees with this statement as it relates to 2013 and 2014. True, there was a
11 significant increase in 2011 installations, but much of that increase was driven by the
12 anticipated changes in the Pg-4 tariff which took effect April 1, 2011. The rate of
13 installations taking service under Pg-4 has slowed considerably in 2012, and will not
14 likely exceed 30. This sharp reduction is caused by a combination of factors, including:

15 (a) diminishing supplies of Focus on Energy solar incentives for residential
16 customers; and

17 (b) WPS's current practice of monthly netting, which reduces the return on
18 investment to customer-generators.

19
20 The reduced installation activity we are seeing in 2012 will likely carry over into 2013
21 and 2014. A decision to allow WPS to change the terms of service to an arbitrary subset
22 of previous customer generators will likely depress market activity, as it would send a
23 signal to prospective customer generators that the utility cannot be counted on to abide by

1 the terms and conditions in place at the time the generation system began producing
2 electricity.

3
4 **Q. WPS also proposes to close off availability of the Pg-4 tariff when the nameplate**
5 **capacity of all participating generators is equal to 0.5% of its peak demand. What**
6 **is RENEW's position on that proposal?**

7 A. RENEW's position is that an individual utility rate case is a highly inappropriate venue
8 for establishing ceilings on net metering availability. The issues raised by this particular
9 request go to the heart of Wisconsin's renewable energy policy, and as such should be
10 dealt with in legislation, not in individual rate cases.

11
12 The state of Michigan's experience with net metering is instructive here. In 2008,
13 Michigan's Legislature passed a net metering law (2008 MICH. PUB. ACT 295) that
14 resulted in net metering rules applicable to all retail electric providers in Michigan
15 (MICH. ADMIN. CODE R. 460-601a-460-656). As a result of these actions, all utilities
16 must now offer net metering service that is significantly more expansive than what is in
17 place in Wisconsin. The tariffs include full retail crediting for renewable energy
18 generators up to 20 kW, a two-tiered service for generators between 20 kW and 150 kW,
19 and a special service for biogas generators up to 550 kW. Consistent with PA 295, the
20 rule also established an aggregate capacity limit of 0.75% of a utility's peak, and is
21 applicable to all investor-owned utilities, electric cooperative and alternate energy
22 suppliers. As is plainly evident, the law is built around a trade-off that expands the
23 availability of net metering while establishing a ceiling on its availability that is the same

1 from one utility to the next. Pursuant to the rule, the Michigan Public Service
2 Commission publishes a report each year documenting the impacts of PA 295 on
3 customer generation activity. An excerpt of the most recent report is attached hereto as
4 Ex.-RENEW-Vickerman-2.

5
6 In contrast, there is no trade-off in sight with WPS's proposed changes to its Pg-4 rate.
7 Everything that WPS proposes, especially the proposed 0.5% ceiling, constitutes a
8 restriction or a limitation of service; there is no countervailing provision that could be
9 accurately described as an expansion. The 0.5% ceiling proposed by WPS is lower than
10 the 0.75% cap placed on the service to WPS's Michigan customers. Indeed, in every
11 respect, WPS's current net metering service in Wisconsin is more restrictive than what is
12 available to WPS's Michigan customers, and the utility's proposed changes to its Pg-4
13 tariff will only exacerbate the restrictions already in place.

14
15 **Q. Do you have anything to add on the subject of solar energy in Wisconsin?**

16 A. Yes. Customers have been the principal drivers of solar electric systems installed in
17 Wisconsin. From 2006 to 2010, utilities like WPS accommodated growing customer
18 interest in solar by offering special buyback rates for qualifying installations, and in some
19 cases, additional up-front incentives that were administered through Focus on Energy.
20 By February 2012, however, investor-owned utilities had discontinued all their solar-
21 specific incentives. This leaves net metering as one of the only viable mechanisms in
22 Wisconsin for advancing solar energy, a preferred energy resource under the state's
23 energy policy hierarchy (Wis. Stats. § 1.12(4)). The net metering services now offered

1 by NSPW and MGE, which the Commission approved in their most recent rate cases,
2 should be used as the current reference for aligning terms and conditions specified in
3 utility net metering service.

4
5 **Q. To summarize, what is your recommendation with respect to WPS's current net**
6 **metering service for existing customer-generators taking service after March 31,**
7 **2011, and new customer-generators?**

8 A. RENEW asks the Commission to require WPS to carry forward excess generation over a
9 12 month-period and allow WPS to choose whether it wishes to employ a rolling 12-
10 month average to determine the net, as MGE does, or to calculate the net at the end of a
11 fixed 12-month period, as NSPW does.

12
13 **Q. What is your recommendation with respect to WPS's proposed changes to its net**
14 **metering service?**

15 A. (1) RENEW asks the Commission to reject the proposed 200% threshold for
16 grandfathering customer generators who took service before April, 1, 2011, and to
17 require WPS to devise a grandfathering mechanism that does not penalize any subset of
18 customer-generators in that situation by ensuring that they have the option to utilize net
19 metering tariffs and practices that were in place at their utility at the time of their system
20 interconnection.

21 (2) RENEW asks the Commission to reject WPS's proposal to impose a ceiling on the
22 availability of net metering in its territory. Policy matters such as net metering ceilings
23 should be incorporated in legislation that is applicable to all electric providers. Individual

1 utility rate cases are inappropriate venues for the consideration of proposals as sweeping
2 and integral to Wisconsin's renewable energy policy as this one.

3

4 **Q. Does this complete your direct testimony?**

5 A. Yes.