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3 BEFORE THE  
4 PUBLIC SERVICE COMMISSION OF WISCONSIN  
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6 Application of Wisconsin Public Service Corporation) Docket No. 6690-UR-118  
7 for Authority to Adjust Electric and Natural Gas Rates)  
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11 **SURREBUTTAL TESTIMONY OF MICHAEL J. VICKERMAN**

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13 **ON BEHALF OF RENEW WISCONSIN**

14  
15 **September 18, 2006**  
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17 **Q. Are you the same Michael Vickerman who previously submitted direct**  
18 **testimony in this proceeding?**

19 A. Yes, I am.

20 **Q. What is the purpose of your surrebuttal testimony?**

21 A. The purpose of my surrebuttal testimony is to provide the Public Service  
22 Commission with an update on our discussions with Wisconsin Public Service  
23 (WPS) concerning buyback rates. Order Point 32 of Docket 6680-UR-117  
24 required the utility to work with Commission Staff and intervenors like RENEW  
25 to discuss alternative methodologies to setting buyback rates for distributed  
26 renewable generation.

27 **Q. Has consensus among the identified parties been reached on a new**  
28 **framework for setting buyback rates?**

29 A. No. To distill matters to their essence, WPS seems to support a framework in  
30 which prices paid to distributed renewable energy producers would track closely  
31 to MISO wholesale market prices, while RENEW favors a framework that fixes

1 rates based on the expected production costs of different renewable distributed  
2 generators over a certain duration.

3 **Q. Please describe the buyback rate framework that RENEW supports.**

4 A. What RENEW is proposing in Exhibit \_\_\_\_ (MJV-1) is a standardized set of  
5 technology-specific rates, known informally as feed-in tariffs, that provides a  
6 fixed return for a pre-determined period of time not shorter than 10 years. The  
7 rates would be set in accordance with the expected production costs associated  
8 with each technology and as well the size of the installation. In our view, fixed  
9 rates have shown to be singularly effective in giving prospective distributed  
10 generators the confidence they need to invest in socially desirable generating  
11 technologies that yield modest annual returns over a long period of time. Feed-in  
12 tariffs have been the driving force behind the extraordinary penetration of solar,  
13 wind and biogas installations in nations like Germany and Spain.

14 **Q. Why is it important that a system of feed-in tariffs be adopted in Wisconsin?**

15 A. Judging from the European experience, feed-in tariffs appear to be the most  
16 effective mechanism a state bereft of fossil fuels could deploy to for stimulating  
17 the establishment and growth of localized renewable energy production and use.  
18 Growth in this still-struggling segment of Wisconsin's energy infrastructure  
19 would benefit the state's economic prospects in just about any category you can  
20 think of: (1) job creation; (2) wealth creation; (3) energy security; (4) reductions  
21 in fossil fuel import outlays; (5) energy price stabilization; (6) growth in local tax  
22 revenues; and (7) enhanced competitiveness of other industries (e.g., agriculture,  
23 forest products, etc.). While the economic stimulus from specific utility-scale

1 renewable energy projects generally remain within the host localities, the benefits  
2 from promoting installations of smaller-scale systems would be spread over wider  
3 swaths of Wisconsin. Policy mechanisms that promote distributed renewable  
4 generation alongside large renewable projects will help countless Wisconsin  
5 businesses and farms prosper as fossil fuels inevitably become more scarce and  
6 costly.

7 **Q. Are there examples of feed-in tariffs in the United States?**

8 A. Arguably the most dramatic example of a feed-in tariff in the United States is We  
9 Energies' solar buyback rate, which is set at 22.5 cents/kWh over a 10-year  
10 period. No other American utility offers such a high price for solar electricity.  
11 This rate, which is more than twice what retail residential customers pay, will be  
12 offered until participation reaches the 500 kW level. There will be no rate impact  
13 from this tariff, because the solar electricity is fed into a pool of lower cost  
14 renewable electricity purchased by Energy for Tomorrow subscribers.

15 Of all 50 states, only Washington can be said to have instituted feed-in  
16 tariffs statewide. According to the *Regulator's Handbook on Renewable Energy*  
17 *Programs & Tariffs*, published by Center for Resource Solutions:

18 "The state of Washington took the lead in adopting a European-  
19 style feed-in tariff for renewable energy. Senate Bill 5101, signed in May  
20 2005, that established a production incentive of 15 cents per kilowatt-hour  
21 for electricity from solar, wind and anaerobic digesters, capped at \$2,000  
22 per year per system (which is equivalent to the annual output of atypical  
23 3.5 kW solar photovoltaic system). This is the first such production  
24 incentive offered in a U.S. state."

25 "The tariff is adjusted upward using a multiplier if the electricity is  
26 generated in-state, using an inverter manufactured in-state, or using  
27 equipment manufactured in-state. This can raise the tariff to as high as 54  
28 cents per kWh; this rate would be available for 10 years, beginning July 1,  
29 2005."

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For more on Washington’s feed-in tariffs, see *Regulator’s Handbook on Renewable Energy Programs & Tariffs*, Center for Resource Solutions, March 2006, authored by Jan Hamrin, Dan Lieberman, and Meredith Wingate.

**Q. Is Exhibit \_\_ (MJV-1) a fully fleshed-out proposal?**

A. No. It is a framework for setting fixed buyback rates in the future. Key components of a feed-in tariff system that require further refinement are: (1) duration (RENEW’s preference is for a minimum of 10 years); (2) the rates themselves, broken down by resource and installation size; (3) provisions for adjusting rates over time; (4) the maximum installation size that can qualify for the feed-in tariff in a certain category (RENEW’s preferences are indicated in the exhibit); and (5) the maximum subscription levels per category and per utility. The above list does not exhaust the universe of details that would have to be worked out in some fashion.

**Q. Is it RENEW’s preference that all utilities provide feed-in tariffs to promote distributed renewable generation?**

A. Yes, RENEW would like to see feed-in tariffs established as a matter of state policy.

**Q. Does RENEW have a target date for establishment of feed-in tariffs to promote distributed renewable generation?**

A. RENEW believes that January 1, 2008, is a reasonable target date for utilities to implement feed-in tariffs. We expect most Wisconsin utilities to file applications

1 in 2007 for adjusting retail electric rates in the following year. Between now and  
2 when those proceedings commence there is sufficient time for RENEW, other  
3 stakeholders and utilities to reach a consensus on a feed-in tariff system based on  
4 the framework described in Exhibit \_\_\_\_ MJV-1.

5 **Q. How should the Commission facilitate the development of a feed-in tariff**  
6 **system to promote distributed renewable generation?**

7 A. The Commission could in its discretion convene a docket for the express purpose  
8 of investigating and developing feed-in tariffs. The chief advantage of this  
9 approach is that it would provide the Commission with a sufficient record for  
10 developing appropriate policies based on the evidence gathered. The principal  
11 drawback of this approach is that it would be difficult for the Commission to  
12 reach a decision in time to influence the utilities' 2008 rate filings. Alternatively,  
13 the Commission could organize and participate one or more technical  
14 conferences, the purpose being to produce information and perspectives that can  
15 inform the Commission and utilities on the cost and benefits of a proposed feed-in  
16 tariff system for Wisconsin. Such an approach may be easier to organize and  
17 manage than a formal proceeding. .

18 **A. You indicated that WPS's preferred framework would involve pegging**  
19 **buyback rates to MISO market prices. Does RENEW support such an**  
20 **approach?**

21 A. Most emphatically not. It is not possible for small-scale renewable energy  
22 generators to obtain financing for capital-intensive projects if, in the absence of a  
23 fixed price tariff or a Power Purchase Agreement, projected revenues cannot be

1           quantified with any degree of certainty. The same could be said for larger projects  
2           as well. I am not aware of a single generating unit that has been built to operate in  
3           the MISO market as a merchant plant, not am I aware of any company with plans  
4           to pursue such a plant. The idea that prospective owners of capital-intensive  
5           energy projects large and small can successfully obtain financing on the strength  
6           of market signals alone is a highly dubious proposition. To subject distributed  
7           renewable generation to a pricing structure that the utilities themselves don't have  
8           to abide by when building new generation capacity would be to effectively  
9           guarantee its demise. Distributed renewable generation is too valuable to  
10          Wisconsin's future to have its fate decided by faith-based economics.

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

12   A.    Yes it does.