



Wisconsin Power and Light Company

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February 17, 2009

Mr. John Shenot, Policy Advisor  
Commissioners' Office  
Public Service Commission of Wisconsin  
P.O. Box 7854  
Madison, WI 53707-7854

**RE: Investigation on the Commission's Own Motion Regarding  
Advanced Renewable Tariff Development**

**05-EI-148**

Dear Mr. Shenot:

Attached is Wisconsin Power and Light Company's response to question # 1 of the January 16, 2009 Notice of Investigation. Responses to questions #3 – 16 are being provided on a joint investor-owned electric utility basis by the Wisconsin Utilities Association.

If you have any questions, please contact Terry Nicolai at (608) 458-5039.

Sincerely,

/s/ *Scott R. Smith*

Scott R. Smith  
Director – Regulatory Relations  
Alliant Energy

## **ART Experience to Date in Wisconsin and Elsewhere**

### **1. Wisconsin utilities for whom the Commission has previously approved an experimental ART are asked to respond to Questions 1.a. through 1.e.**

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#### **a. How did the utility decide upon the design and price of each ART?**

##### **WPL Response:**

WPL has the PgS-6 Renewable Energy Distributed Generation Rider that was issued on 4-30-02 and was closed to new customers on 12-31-07. This tariff was designed to foster development of renewable energy initiatives that generate methane (biogas) from anaerobic digestion or operate landfills to produce gas as a fuel. Generation capacity was limited to 800 KW or less and total participation was limited to 10 MW. Customer owned generation was offered 5 year contracts with a purchase price of \$0.080/kWh on-peak and \$0.049/kWh off-peak. Rates were set at a level estimated to provide an adequate rate of return for investment to encourage the growth and development of these renewable technologies.

The PgS-ART Advanced Renewable Distributed Generation experimental tariff was effective 1-01-09. This tariff is designed to foster development of renewable energy initiatives that generate energy from solar, biomass, wind, small hydro, and other renewable resources. The energy buyback rate has two options; option 1 for solar resources and option 2 for non-solar resources. Solar resources receive \$0.25/kWh and non-solar resources receive \$0.1200/kWh on-peak and \$0.0735/kWh off-peak. Solar participation is limited to a maximum of 20 kW with an overall program cap of 683 kW. Biomass/Biogas has a maximum project size of 2 MW and other renewable resources have a maximum project size of 1 MW with an overall program cap of .5% of the Company's retail electric kWh sales from the prior calendar year. Customers are provided this buyback rate for the duration of a 10 year contract. The \$0.25/kWh for solar installations is based on solar system economic analysis conducted by Wisconsin Energy Conservation Corporation. It is competitive to WE Energies', WPSC's and MGE's solar buy-back rates. For all renewable resources, rates were set at a level estimated to provide an adequate rate of return to encourage investment in customer owned renewable technologies.

#### **1b. What effect did each ART have in terms of number of participating customers, enrolled capacity, and actual generation?**

##### **WPL Response:**

The Pgs-6 Renewable Tariff, referenced in Data Request No. 1a, resulted in one renewable energy installation, comprising of a 200 kW facility at the Double S Dairy in Markesan, WI. While we have had inquiries regarding rates and interest in putting in renewable facilities, the lack of participation in the program suggests that the current

rates and incentives are not high enough to induce people or businesses to install these facilities. This one facility had no real impact on capacity or generation.

The PgS-ART tariff that was approved on 12-30-08 in docket 6680-UR-116 has not been in place a sufficient amount of time to yield results. The number of inquiries and enthusiasm regarding the Tariff suggest the tariff limits will be met in a short amount of time: Solar < one year and all other renewables < 2 years.

**1c. To date, how would the total cost to the utility of each ART compare to market rates for electricity and market rates for electricity generated from renewable resources?**

**WPL Response:**

WPL's PgS-ART tariff has two pricing options for resources that satisfy the conditions and limitations of service established by the tariff provisions. As mentioned above, solar resources receive a fixed price per unit of \$0.25/kWh and non-solar resources receive \$0.1200/kWh during on-peak (weekdays 8 a.m. to 10 p.m.) pricing periods and \$0.0735/kWh off-peak pricing periods.

Market-based purchase pricing for electricity could be represented by MISO locational marginal prices. These hourly market prices can vary substantially. WPL's parallel generation tariffs (PgS-1 and PgS-3) establish a level of compensation at a fixed price per unit that is comparable to the average avoided market purchase. The current tariffed level for traditional parallel generation compensation at distribution level is \$0.08090/kWh during the on-peak and \$0.03500/kWh during the off-peak. These price levels are evaluated in each rate case for a forward-looking test year.

**1d. What effect, if any, have ARTs had on utility rates, voluntary "green power" prices, and utility returns?**

**WPL Response:**

WPL's PgS-ART tariff was effective on 1/1/2009. Because of this, the PgS-ART non-solar options have not had an effect on utility rates to-date.

The PgS-ART solar option costs are assumed to be a part of the Second Nature premium expenses. It is believed that the contributions from Second Nature customers will cover the incremental solar costs as a portion of the portfolio of renewable resources for the program. This will leave other customers neutral to the rate compensation level paid for the PgS-ART solar resources.

WPL also has a PgS-6 tariff that provides a buyback incentive rate to digesters. This tariff is currently closed to new participants. The fixed pricing level was set at a level that was higher than traditional parallel generation pricing when the tariff was initially established. The rate levels are now very close to the standard parallel generation tariffs, reflecting that marginal energy rates have increased over time. The costs are treated as a purchased power fuel expense.

**e. What contribution has each ART made toward utility compliance with renewable portfolio standard obligations?**

**WPL Response:**

The one project WPL currently has under an ART is not large enough to affect the utility's RPS obligations. The project size is 190 kW and is not tracked in M-RETS because the cost of tracking far outweighs the value of the REC. M-RETS expenses include an initial registration fee, an annual fee, and a fee for each REC transaction.

If larger biomass/biogas projects (2 MW to 5 MW) were considered for an ART, the renewable energy generated would contribute substantially to RPS obligations and the fees associated with M-RETS tracking would be reasonable. Wisconsin has abundant renewable resources (biogas and other waste streams) for larger projects that could be used to generate electricity and, in addition, create a myriad of environmental benefits. However, to date, many of these larger projects have not moved forward for economic reasons.