RENEW WISCONSIN
The organized voice for renewable energy since 1991
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December 23, 2014

Ms. Sandra Paske, Secretary of the Commission
610 N. Whitney Way
P. O. Box 7854
Madison, WI 53707-7854

RE: RENEW Wisconsin Public Comment in PSC Docket 5-CE-142
(Badger-Coulee Transmission Line)

Dear Ms. Paske:

RENEW Wisconsin, a statewide clean energy advocacy and education organization, appreciates the opportunity to comment in the proposed Badger-Coulee Transmission Project, now being reviewed by the Public Service Commission.

RENEW's Board of Directors adopted at its July 2014 a resolution to "support the Badger Coulee line, based on the understanding that more clean renewable energy will be used in Wisconsin." RENEW's Board also indicated its desire that the project be completed within the stated budget range provided by the Applicants.

RENEW Wisconsin supports electric infrastructure projects that enable Wisconsin citizens and businesses to secure the economic savings and environmental benefits of clean energy produced in and around the state. There are three primary approaches for increasing the percentage of renewable energy resources relative to the state's overall electric resource mix. They are:

- Energy conservation and efficiency, leading to overall electricity reduction;
- Localized distributed generation projects serving individual customers and nearby areas; and
- Utility-scale renewable generation projects that feed electricity into the regional transmission system.

In our view, all three pathways are of equal value and all must be pursued in concert if Wisconsin is to transition to a cleaner energy future and meet forthcoming obligations to reduce carbon dioxide emissions, and to do so in the most cost-effective manner. Wisconsin in

particular is vulnerable to the economic risks from maintaining a generation portfolio which is heavily based on coal power. Wisconsin's electric rates have doubled in the past 22 years, and in that time, utilities have been allowed to spend billions of dollars on new coal-fired plants and retrofits of existing ones. In contrast, two of our neighboring states, Minnesota and Iowa, have pursued a notably less costly path. Both have largely pursued wind generation, and have been able to lock in lower rates lower because of that. Please see Figure 1 below. Specifically note Wisconsin's electric rates trajectory compared to Iowa's – Wisconsin's rates rose 99% over that time while Iowa's rose just 38%. Once the lowest in the region, Wisconsin's electric rates have surpassed those of Iowa by a substantial margin.

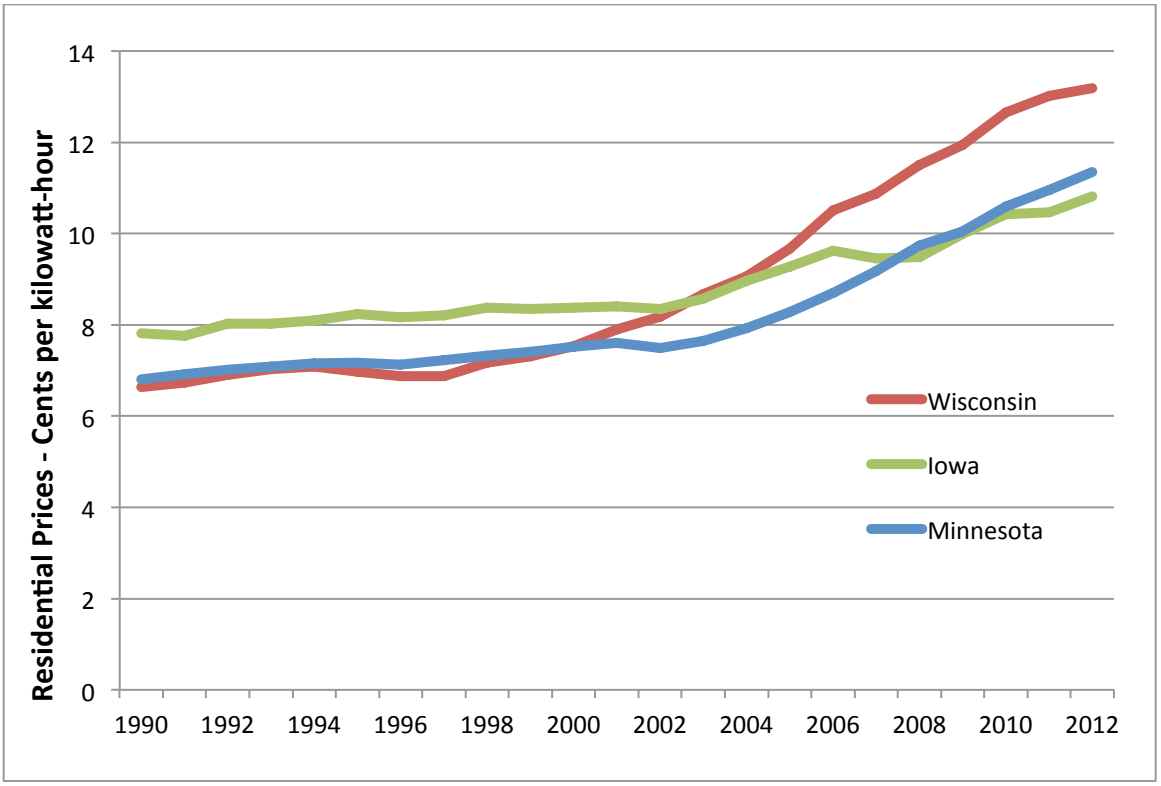

Figure 1: Electric rates for Residential Customers in Wisconsin, Iowa, and Minnesota from 1990 to 2012. Data Source: Energy Information Administration website, average price (cents/kilowatthour) by state by provider, 1990-2012.

In fact, a clear trend has developed amongst these three states: where renewable energy production is higher, electric rates are lower.

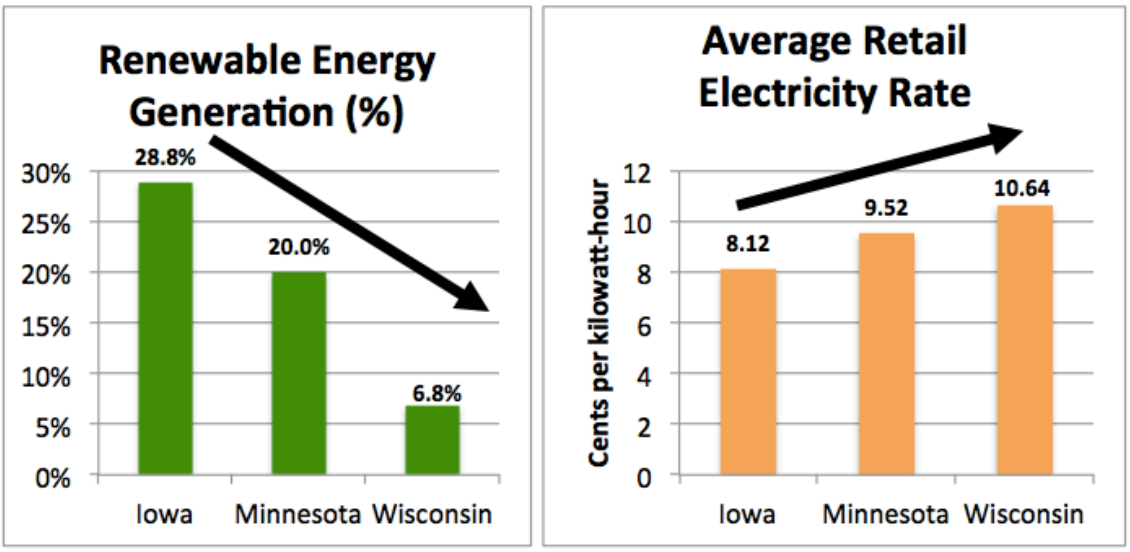

Figure 2. Renewable energy and electric rates comparison, Iowa, Minnesota, and Wisconsin. Data Sources: Left, Energy Information Administration, Electric Power Monthly, February 2014; Right, Energy Information Administration website, average price (cents/kilowatthour) by state by provider, 1990-2012 – note this graphic depicts rates for all sectors, where Figure 1, derived from the same dataset, was for residential customers only.

To see how an Iowa-based utility, Mid-American, views wind power, I am including excerpts from an October 11, 2014 article from the Des Moines Register, "MidAmerican expands Iowa wind foothold."

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William Fehrman, president and CEO of MidAmerican, said the company is continuing to invest in wind projects because they are a good way to reduce costs for customers and bring the state closer to meeting goals for reducing carbon emissions.

Wind generation "... continues the drive to reduce our overall carbon footprint and better position ourselves and our customers and our state to the changing regulatory environment," he said.

The company made the announcement during a news conference with Gov. Terry Branstad and Lt. Gov. Kim Reynolds.

Branstad said the project is "the latest evidence of MidAmerican Energy's longstanding and ongoing commitment to renewable energy." He also said this and other wind projects help the state attract companies such as Microsoft and Google.

"Major companies from across the country and around the world are looking at Iowa as a place to locate facilities due to our commitment to providing sustainable, affordable energy solutions," Branstad said.

Statistics on MidAmerican's wind projects. Once MidAmerican Energy's most recent projects are complete, here's how the utility's investment in wind will stack up:

- 21 wind projects across 22 counties.
- $6 billion invested.
- 3,500 megawatt production capacity.
- More than 1 million homes that could be powered.

+++++ (end excerpts)

Having demonstrated that low-cost wind energy keeps electric rates low, it is imperative to understand why Badger Coulee is needed for Wisconsin and the Midwest to continue expansion and development of low-cost wind power, and so that Wisconsin can take advantage of these lower cost resources to save people and businesses money over the long run.

Electricity planning is conducted at the regional level. The Midcontinent Independent System Operator (MISO) has developed a plan to construct 17 "Multi Value Projects (MVP)" throughout the Midwestern United States in order to increase reliability and meet public policy goals, namely those of renewable energy standards and the market-driven expansion of wind power. In total, these 17 lines are expected to lead to $50 billion of wind power projects. Currently, approximately 5 gigawatts of wind power capacity are in the planning stages in the Midwest which specifically "have the Badger Coulee project as a condition of their full interconnection service." (Direct-MISO-Rauch-41r).

MISO witness Rauch also states: "The MVP portfolio in general, and Badger Coulee in particular, allows for the integration of high quality wind in these western areas as well as within Wisconsin to support the satisfaction of RPS requirements across the MISO footprint. More specifically, Badger Coulee, in conjunction with the rest of the MVP portfolio, will enable the production of approximately 41 million MWh of wind energy annually throughout the MISO footprint. This includes a total of 1005.4 MW of new nameplate capacity within Wisconsin." (Direct-MISO-Rauch-34r).

Today, there is more than 10,500 MW of wind generation operating in Iowa, Minnesota, North Dakota and South Dakota, and 1,750 MW under construction.

But, in 2013, the output of these wind farms was curtailed by 5% due to transmission constraints. The level of wind curtailments will rise unless and until transmission constraints

are alleviated. Worse, as stated previously, planned wind farms would get cancelled if this line isn't approved.

An expanded transmission system would relieve the pockets of congestion that impede the flows of zero-fuel cost electricity throughout the Upper Midwest. Allowing wind generation and other clean energy sources to move around the region more freely could help Wisconsin utilities control their escalating generation costs and manage their transition to a less coal-intensive future.

Conclusion

As we prepare for the future, we will need to replace retiring coal-fired generation in Wisconsin, and we need to do that in the lowest-cost manner and with the fewest new carbon emissions to a) reduce our risk exposure to federal carbon rules and b) improve the environment and public health. Wind power is the primary vehicle for new generation, at utility scale, that will enable us to achieve those dual goals of low-cost and low-carbon. According to MISO witness, "the production cost simulations of the MVP portfolio found that the portfolio will reduce MISO's carbon output by 8.3 to 17.8 million tons annually." (Direct-MISO-Rauch-35r).

The combination of utilizing regional windpower (with increased access via Badger Coulee), in-state wind power, in-state distributed renewable energy including solar and bioenergy, and pursuing energy efficiency will provide the most cost-effective and least risky strategy for Wisconsin's electricity future.

For these reasons, and as part of the overall transition to cleaner, lower-cost, and lower-risk electricity provision, RENEW supports the Badger Coulee transmission line project, and urges the Commission to approve the application before it.

With that said, we also urge the Commission to select a route that achieves the above-stated goals with minimal impacts, and is least damaging to the environment through which the proposed line would pass. The proposed routes include environmentally sensitive areas and all care should be exercised to minimize the effects to the greatest extent possible.

Thank you for the opportunity to comment on this matter and for your consideration of this information.

Sincerely,

Tyler Huebner
Executive Director