**BEFORE THE**
**PUBLIC SERVICE COMMISSION OF WISCONSIN**

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| Joint Application of Wisconsin Public Service Corporation and Madison Gas and Electric Company for a Certificate of Authority to Purchase the Red Barn Wind Energy Center Generation Facility in the Towns of Wingville and Clifton, Grant County, Wisconsin | 5-BS-256 |

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## COMMENTS OF RENEW WISCONSIN

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RENEW Wisconsin appreciates the opportunity to provide comments on the application of Wisconsin Public Service Corporation (hereinafter "WPS") and Madison Gas and Electric (hereinafter "MGE") (collectively, the "Joint Applicants") for approval to purchase the Red Barn Wind Energy Center Generation Facility generating facility in Grant County. As described in the Commission memorandum dated December 7, 2021, the Red Barn wind power project is presently owned by Red Barn Energy LLC, an affiliate of Project Resources Corporation. Red Barn's current owner intends to sell the project to ALLETE Clean Energy (hereinafter "ALLETE"), a nonutility wholesale power producer, which will construct the project. With a nameplate capacity of 92 megawatts (MW) of alternating current, Red Barn is not subject to Commission review authority over siting and construction. That power resides with the local government, Grant County in this case. As such, Red Barn has already received the necessary siting approvals from Grant County, and ALLETE will obtain additional environmental and government permits necessary for construction and operation of the project. If this application is approved, ALLETE would build the project and transfer the generating asset to Joint Applicants once it has commenced commercial operation. The Joint Applicants would acquire the generation facility at a price of $162 million, which works out to a unit cost of $1,760/kilowatt. WPS proposes to own 90% of the asset--approximately 83 MW--while MGE proposes to own the remaining 10% share (approximately 9 MW). These terms and others are detailed in the Purchase and Sale Agreement (hereinafter "PSA") that Joint Applicants submitted in November 2021.

Like the Build Transfer Agreement that the Public Service Commission (hereinafter the "Commission") approved in Docket 4220-BS-101, in which applicant Northern States Power-Wisconsin proposed to acquire the 74 MW Western Mustang solar project developed by Ranger Power, the PSA specifies that the project must be in operation prior to the transfer of the asset to Joint Applicants. This arrangement reduces ratepayer exposure to any financial risks that could be incurred during the construction process.

Red Barn has the distinction of being the first wind power project ever to have been reviewed and approved by a local governmental authority under the rules set forth in PSC Chapter 128, which took effect nearly 10 years ago (March 2012). If this application is approved, Red Barn will be the first Wisconsin-based wind energy power plant to be added to the generation portfolio of any Wisconsin investor-owned utility since the 162 MW Glacier Hills project in late 2011. RENEW commends Project Resources Corporation for blazing the trail here, working with willing landowners as well as accommodating neighbors and local officials to assemble and shepherd a wind power project from conception to siting approval, sparking no discernible opposition in the process.

It must be pointed out that the Commission memo does not disclose any facility-specific information on wind turbines themselves (e.g., number of turbines, turbine dimensions and operating characteristics, capacity ratings, and vendor information). There is a brief description of the facility in the application, where it is disclosed that the conditional use permit can accommodate up to 29 turbines and a total project capacity of 99 MW. According to the application, the current proposal envisions a 28-turbine project. A 28-turbine project with a total nameplate capacity of 92 MW equates to a per-turbine capacity of 3.28 MW. As a point of comparison, the four-year-old Quilt Block project, located in Lafayette County about 30 miles from the Red Barn site, consists of 49 turbines 2-MW turbines, amounting to a total nameplate capacity of 98 MW. Red Barn's turbines would be the largest installed anywhere in Wisconsin. We look forward to learning more about the facility itself as soon as contracts with equipment suppliers are signed.

The Commission memo states that the expected capacity factors for Red Barn are comparable to those recorded by the Quilt Block project. However, because Quilt Block is owned by an independent power producer and sells its output under contract to a wholesale electric provider, its net capacity factors are considered confidential information. Usually utilities communicate the output from their renewable generation projects in terms of equivalent households served. Using this equivalency communicates an output range that can translate into reliable estimates of net capacity factor. As an example, MGE's website states that the company's 50 MW share of the Badger Hollow 1 project is expected to generate enough electricity to power approximately 16,500 households. Framing project output in this fashion enables one to derive a capacity factor between 23% and 24% for the Badger Hollow facility. However, neither the application nor the Commission memorandum offers any publicly accessible estimate of Red Barn's productivity over its operating life. This complicates efforts to estimate how much carbon dioxide would be avoided through this project's operation. In the absence of such information, RENEW will conservatively assume a net capacity factor of 35% for this project. Using that placeholder value, RENEW estimates Red Barn's annual generation will average about 282,000 megawatt-hours. That total production estimate can be multiplied by the most recent estimate from U.S. Energy Information Administration of $CO_2$ emission rates attributable to the Wisconsin power sector (1,118 lbs./megawatt-hour) in order to estimate total

avoided $CO_2$. Using those numbers, we anticipate that Red Barn will reduce $CO_2$ emissions statewide by about 167,000 tons in its first full year of operation.

In the memorandum, Commission staff offered a number of observations attesting to the likely value of Red Barn to Joint Applicants. These include:

- Red Barn would qualify for 80% of the federal Production Tax Credit (PTC) if construction commences in early 2022;
- According to analysis provided by WPS, the energy from Red Barn, had it been online in 2016, would have reduced that utility's market purchases and decreased fuel costs, thereby providing savings for its ratepayers;
- Both WPS and MGE have committed to phasing out their coal-fired power plants generation and replacing them with zero-emission, zero-fuel cost generating capacity; and
- Noncombustible renewable resources such as wind energy are the most cost-effective and technically feasible options for furthering the public policy of the state in encouraging the development of renewable resources.

**In this docket, RENEW supports Commission approval of Joint Applicants' request to acquire the Red Barn Wind Energy Center Generation Facility.** In our view, Red Barn is an economically attractive source of zero-fuel cost, zero-emission electricity for WPS and MGE. The addition of Red Barn to Joint Applicants' respective generating portfolios will reasonably balance reliability, cost-competitiveness, environmental responsibility, and operational financial risk. Additionally, RENEW supports the proposed conditions enumerated on pages 25-27 of the Commission memorandum (Alternative Two).

**We respectfully urge the Commission to issue a Certificate of Authority to Joint Applicants enabling the purchase of the Red Barn Wind Energy Center Generating Facility.**

Thank you for this opportunity to comment.

Respectfully submitted this 14th day of December 2021.

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