BEFORE THE

PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Wisconsin Power and Light Company for a Certificate of Authority to Construct a Wind Electric Generation Facility and Associated Electric Facilities, to be Located in Fond du Lac County, and an Application for Approval of Fixed Financial Parameters and Capital Cost Rate-Making Principles for the Facility, to be Known as the Cedar Ridge Wind Farm	6680-CE-171

CERTIFICATE AND ORDER

On September 13, 2006, Wisconsin Power and Light Company (WP&L) filed an application with the Commission for authority under Wis. Stat. § 196.49 and Wis. Admin. Code ch. PSC 112 to construct, own, and operate a wind electric generating facility. The facility, known as the Cedar Ridge Wind Farm, will be located in the area of Eden, Fond du Lac County. The project will include up to 41 wind turbines with a total generating capacity of up to approximately 98 megawatts (MW), depending on the make and model of turbine selected.

The application is APPROVED, subject to conditions and as modified by this Certificate and Order.

Findings of Fact

1. WP&L is a public utility engaged in rendering electric service in Wisconsin, pursuant to Wis. Stat. § 196.01(5)(a). WP&L is proposing to construct a wind-powered electric generating facility, to be known as the Cedar Ridge Wind Farm, as described in its application and as modified by this Certificate and Order. WP&L estimates the total capital cost of the project to be $178,866,148.

2. Conservation or other renewable resources, as listed in Wis. Stat. §§ 1.12 and 196.025, or their combination, are not cost-effective alternatives to WP&L's proposed facility.

3. The WP&L project, as modified by this Certificate and Order, satisfies the reasonable needs of the public for an adequate supply of electric energy.

4. The WP&L project, as modified by this Certificate and Order, will not substantially impair WP&L's efficiency of service or provide facilities unreasonably in excess of probable future requirements. In addition, when placed in operation, the project will increase the value or available quantity of WP&L's electric service in proportion to its cost of service.

6. A brownfield site for the project is not practicable.

Conclusions of Law

The Commission has jurisdiction under Wis. Stat. §§ 1.11, 1.12, 44.40, 196.02, 196.025, 196.395, 196.40, and 196.49, and Wis. Admin. Code chs. PSC 4 and 112, to issue a certificate and order authorizing WP&L, as an electric public utility, to construct and place in operation a wind-powered electric generation facility with a capacity of up to 98 MW and to impose the conditions specified in this Certificate and Order.

Discussion

WP&L is a public utility, as defined in Wis. Stat. § 196.01(5)(a), engaged in rendering electric service in Wisconsin. It is proposing to build a wind electric generating facility of up to 41 wind turbines with a generating capacity of up to 98 MW. WP&L estimates that the wind turbines will have a lifespan of 20 years. WP&L must also construct access roads to the turbine sites, an underground 34.5 kilovolt (kV) electric collector system to gather the power from each turbine, temporary paths for erection crane access to the turbine sites, and new electric substation

facilities for interconnecting to the existing electric transmission system. American Transmission Company LLC (ATC) owns the high-voltage transmission system in eastern Wisconsin and operates a 138 kV transmission line that passes through the project area. WP&L intends to interconnect with this line. Since the cost of the interconnection substation will be under its construction cost filing threshold, ATC is not required to obtain Commission authority to construct its portion of the interconnection facilities.

By order dated December 14, 2006, in docket 6680-GF-121, the Commission authorized WP&L's request for deferral of the incremental costs necessary to secure and build the Cedar Ridge Wind Farm. WP&L has also filed applications for authority to issue and sell securities in connection with the project, in dockets 6680-SB-129 and 6680-SB-130. In addition, WP&L has filed an application in docket 6680-AE-109 for approval of the assignment and assumption agreement between WP&L and Cedar Ridge Wind, LLC, as an affiliated interest agreement. Finally, WP&L has filed an application in this docket 6680-CE-171, under Wis. Stat. § 196.371 and Wis. Admin. Code ch. PSC 111, for authorization of fixed financial parameters. This Certificate and Order is the Commission's final action on WP&L's application for authority under Wis. Stat. § 196.49 and Wis. Admin. Code ch. PSC 112 to construct, own, and operate a wind electric generating facility.

WP&L has identified a project area consisting of approximately 7,800 acres of land, located in the towns of Eden and Empire in Fond du Lac County. Approximately 83 percent of the project area is agricultural land, open space, or vacant land. WP&L is proposing to construct turbines at up to 41 specific sites within this area. No additional sites or alternate areas have been identified. The current estimated capital cost of the project is $178,866,148.

In March 2004, WP&L issued a Request for Proposals for offers to sell wind energy and associated renewable energy credits to WP&L under a long-term purchased power agreement (PPA). As an option, WP&L also asked for proposals for full or partial ownership of development sites or turn-key wind projects. WP&L received ten responses for PPAs, and five ownership offers. WP&L initially accepted a bid from Forward Energy, LLC (authorized by the Commission in docket 9300-CE-100) as the least-cost option at the time, with the expectation that the project would be completed and become commercially operational expeditiously. WP&L received a PPA proposal from Midwest Wind Energy Development Group, LLC (MWE), although that proposal was not accepted at the time. Ultimately, WP&L determined that the Forward project was not its best alternative, and accepted MWE's proposal to purchase its project. Following a detailed due diligence, on July 31, 2006, WP&L obtained an option to purchase the project from MWE.

Since MWE, as Cedar Ridge LLC, would have constructed the project as an independent power producer (IPP), it would not have been required to obtain Commission authority to construct its project under Wis. Stat. § 196.491 because the project would have a generating capacity of less than 100 MW. Because WP&L is a public utility as defined by Wis. Stat. § 196.01(5), it is required to obtain construction authority for the project under Wis. Stat. § 196.49 and Wis. Admin. Code ch. PSC 112. As a result, WP&L is required to obtain authorization to construct the project from the Commission as the cost of the project exceeds the construction cost filing threshold listed in Wis. Admin. Code § PSC 112.05(3)(a)3.

Fond du Lac County does not have county-wide zoning, but MWE, as Cedar Ridge Wind LLC, negotiated Joint Development Agreements (JDA) with the towns of Eden and Empire.

WP&L has signed landowner lease agreements for all 41 proposed turbine sites. The leases include turbine site rent for which WP&L agrees to pay to each hosting landowner an annual payment of either $7,272 per installed turbine or an amount equal to $3,636 per MW of installed nameplate capacity, whichever is greater. Depending on which turbine is used, the annual payment would either be $7,272 or $9,090 per turbine. The approximate first year lease costs for the entire project would be either $298,152 or $354,510 depending on the turbine. Payments would increase by 2 percent per year for the estimated 20-year life of the project.

In addition to lease agreements, a total of 36 landowners have signed setback waiver agreements that allow smaller setbacks to their residences than those found in the JDA. As payment for signing such waivers, each landowner would receive an initial payment of $1,000 upon execution of the waiver. Annually thereafter, each landowner would receive $1,500 for the first turbine and $500 for each additional turbine located within the JDA setback. This annual setback payment would increase at a rate of 2 percent per year.

Neighboring landowners not hosting turbines or turbine facilities have also been offered a Windpower Facilities Neighbor Agreement. In return for cooperation with zoning, licensing or other permitting proceedings, each neighboring landowner would be paid $500 per year if a turbine is within 1,760 feet (1/3 mile) of the landowner's residence. This payment increases to $750 per year if two or more turbines are within 1,760 feet of the residence.

On September 13, 2006, WP&L filed with the Commission its application for authority under Wis. Stat. § 196.49 and Wis. Admin. Code ch. PSC 112 to construct, own, and operate the proposed wind electric generating facility. Subsequent to the filing, Commission staff submitted several data requests to the applicant.

On January 23, 2007, WP&L informed the Commission that the turbine make and model originally planned for use for the project was not available. Instead, WP&L proposed use of one of two different turbine models. These new turbine models have different physical and operating parameters from each other, and also differ significantly from the turbine model originally proposed for the project. All documents filed in the docket that mention specific turbine make and model information were filed as confidential by WP&L.

WP&L states that each of the turbine models currently under consideration have similar environmental impacts and can operate acceptably in the wind regime at the project site.

In addition to the change in preferred turbine, the estimated cost of the project has increased since the project application was filed due to the current seller's market for wind turbines. These changes rendered inaccurate some sections of the original application and data request responses filed previously by WP&L.

On January 30, 2007, Commission staff requested that WP&L revise its application and previous data request responses. On March 29, 2007, WP&L refiled its application, as revised and amended to include responses to Commission staff's data requests, and corrected to reflect the currently-proposed turbine models and changes in project cost.

In its December 12, 2006, Notice of Proceeding and Prehearing Conference relating to WP&L's fixed financial parameters application, the Commission gave notice that this is a Type II action under Wis. Admin. Code § PSC 4.10(2). As such, an environmental assessment (EA) was prepared to determine if the preparation of an environmental impact statement (EIS) is necessary under Wis. Stat. § 1.11. In its notice, the Commission solicited comments on the environmental aspects of this docket. The Commission also sent a letter dated January 26, 2007, to residents of the project area announcing public information meetings to be held on February

12, 2007. This letter included, pursuant to Wis. Admin. Code § PSC 4.20, notification to residents in and near the project area of the Commission's intention to prepare an EA to determine whether an EIS was necessary. The letter also included instructions on how to comment on the environmental aspects of the project, either at the public information meetings, by mail, e-mail, or by telephone. During, and subsequent to these scoping meetings, comments regarding the project were received from several members of the public. Copies of those comments are included in the Commission's files. No public hearing regarding the construction application was required or held.

On April 20, 2007, the Commission issued a preliminary finding that the proposed project is unlikely to have a significant environmental effect on the human environment and therefore, preparation of an environmental impact statement is not warranted. Comments on the preliminary determination were due on May 7, 2007. On May 8, 2007, the Commission issued its final EA, which included a finding of no significant environmental impact.

Project Need

According to Commission staff's preliminary EGEAS modeling[1] for the proposed project, the optimal, least-costly EGEAS plan would add more fossil fuel generation. While the modeling indicates that constructing more fossil fuel generation could be less expensive than WP&L's project, at this time it is very difficult to identify exactly how much less expensive. Depending upon variables such as the energy output of turbines in Wisconsin's wind environment, when the United States is likely to begin regulating greenhouse gas emissions, and

[1] The Commission uses the Electric Generation Expansion Analysis System (EGEAS), a complex interactive computer model developed by the Electric Power Research Institute. Over the past decade, the Commission has consistently used and required utilities to use EGEAS to evaluate electric generation expansion plans for cost-effectiveness and optimality.

the extent to which WP&L may sell its wind energy at wholesale, this project could include a cost premium that ranges from zero to approximately $67 million.

Even though fossil fuel generation could be more cost-effective than WP&L's wind project, the Commission must consider its obligation to ensure that WP&L increases the amount of renewable energy resources in its system. The Renewable Portfolio Standard in 2005 Wis. Act 141 and Wis. Stat. § 196.378, which took effect on April 1, 2006, established state policy to increase aggressively the level of renewable resources in the electric supply mix. Under these new requirements, each Wisconsin electric provider must increase its renewable energy levels by 2 percentage points by 2010 and by 6 percentage points by 2015, above its 2001 to 2003 baseline average. WP&L will be required to generate 5.012 percent of its Wisconsin retail electric sales from renewable energy by 2010 and a total of 9.012 percent by 2015. Assuming commercial operation by the end of 2008 or earlier, this project will allow progress toward meeting its Renewable Portfolio Standard obligations in 2010.

Under Wis. Stat. § 196.49(3)(b), which also focuses on project need, the Commission may not authorize a construction project if the project will do any of the following:

> 196.49(3)(b)1. Substantially impair the efficiency of the service of the public utility.
>
> 2. Provide facilities unreasonably in excess of the probable future requirements.
>
> 3. When placed in operation, add to the cost of service without proportionately increasing the value or available quantity of service unless the public utility waives consideration by the commission, in the fixation of rates, of such consequent increase of cost of service.

Because of the requirements of the Renewable Portfolio Standard and the Energy Priorities Law, WP&L needs more renewable resource generating facilities. Based on WP&L's application, this project is a means of complying with WP&L's renewable resource requirements and the project meets the criteria specified in Wis. Stat. § 196.49(3)(b). The project will not

result in unreasonable excess facilities and will satisfy the reasonable needs of the public for an adequate supply of electric energy.

The Commission must implement a state energy policy when reviewing any application. Known as the Energy Priorities Law, it establishes the preferred means of meeting Wisconsin's energy demands as listed in Wis. Stat. §§ 1.12 and 196.025(1).

The Energy Priorities Law creates the following priorities:

> **1.12 State energy policy.** (4) PRIORITIES. In meeting energy demands, the policy of the state is that, to the extent cost-effective and technically feasible, options be considered based on the following priorities, in the order listed:
>
> (a) Energy conservation and efficiency.
> (b) Noncombustible renewable energy resources.
> (c) Combustible renewable energy resources.
> (d) Nonrenewable combustible energy resources, in the order listed:
> 1. Natural gas.
> 2. Oil or coal with a sulphur content of less than 1%.
> 3. All other carbon-based fuels.

In addition, Wis. Stat. § 196.025(1) declares, "To the extent cost-effective, technically feasible and environmentally sound, the commission shall implement the priorities under s. 1.12(4) in making all energy-related decisions . . . ." Since wind is a noncombustible renewable resource, WP&L's proposed electric facility fits within the second-highest statutory priority.

The Commission implements the energy priorities by determining whether any higher-priority alternatives to a proposed project would be cost-effective, technically feasible and environmentally sound while meeting the objectives the proposed project is intended to address. Regarding other noncombustible renewable energy resources, no other form of currently available renewable generation is as cost-effective and technically feasible as wind. For these reasons, the Commission concludes that the WP&L project complies with the Energy Priorities Law.

Environmental Factors

WP&L's project will have a number of positive environmental effects. The energy produced by the project will avoid many of the impacts that fossil fuel and nuclear power electric generation create. The operation of this wind farm will produce none of the "criteria" air pollutants that are regulated under the federal Clean Air Act,[2] will release no greenhouse gases, which are the electric industry's principal contribution to global warming and climate change, and will emit no hazardous air pollutants such as sulfuric acid, hydrochloric acid, ammonia, benzene, arsenic, lead, formaldehyde, and mercury. Furthermore, it will generate power without using any significant amount of water or producing any solid waste.

There are no county parks and no Department of Natural Resources (DNR) or federally-owned lands in the project area. WP&L has reduced impacts to wooded areas, wetlands, and waterways as much as possible when selecting turbine sites and designing access roads, collector circuits, and crane paths.

WP&L is not proposing to install any of its turbines in wetlands or waterways. Turbine sites are primarily on uplands used intensively for agricultural purposes. The topography in the project area is quite different than in other areas of Wisconsin where wind turbines have been sited. The area contains dozens of discrete drumlins interspersed among a number of small waterways or wetlands that are often wooded. Farming practices on the drumlins include the use of grassed waterways and conservation tillage. Because of the complex topography and land cover in the project area, a number of turbine sites are located near and between wooded and wetland habitats, and in and near land enrolled in the Conservation Reserve Program. These

[2] These pollutants are small particulate matter, sulfur dioxide, carbon monoxide, volatile organic compounds, and nitrogen oxides. *See* 42 USC 7409 and Wis. Admin. Code ch. NR 405.

areas are likely to support breeding and migrating birds and bats. Some wetlands and waterways would be affected by construction of access roads, crane paths, and collector circuits. DNR regulates construction in waterways through the issuance of permits under Wis. Stat. ch. 30 and § 281.36 and in wetlands through the issuance of water quality certifications under Wis. Admin. Code chs. NR 103 and 299. DNR has not issued permits in this case at this time because WP&L's permit applications are incomplete. DNR has given no indication that wetland, waterway crossing, and storm water construction permits could not eventually be issued.

Oak Wilt

Approximately 22 acres of woodland will be affected by construction and operation of this project. While most project facilities avoid these areas, some access roads and collector system cables would be constructed through them. As a result, care needs to be taken in order to avoid spreading oak wilt. Oak wilt infects all species of oak and produces a high mortality rate, especially for trees in the red oak family. Oak wilt often kills the tree within one year of initial infection. The primary cause of the disease is a fungus, which is carried between trees by sap-feeding beetles or is spread to adjacent trees through interconnected root systems.

On its website, DNR provides information about oak wilt. Initial infection in a stand of healthy trees is possible by wounding, pruning, or removing trees during spring or early summer when the beetles are active and the fungus is producing spores. DNR recommends that oaks not be pruned, cut, or injured between April 15 and July 1 of each year.

It is reasonable for WP&L to use DNR recommendations for control of oak wilt during construction and maintenance of this project.

Potential Avian and Bat Impacts

A primary environmental concern for this project is the potential for adverse effects to birds and bats. Potential wind farm impacts to birds include mortality, habitat loss, habitat fragmentation, and bird displacement. Similar impacts are possible for bat populations. Researchers have studied bird fatality rates at existing wind farms in the U.S. In those studies, both migratory and resident birds sometimes collide with wind turbines. The annual avian mortality rate at U.S. wind farms previously studied has been low, ranging from less than one bird per turbine to eight birds per turbine. Scientists have researched avian mortality at a number of Midwestern wind farms. The studies found, to date, that bird mortality rates are not significant for common species, but these studies do not fully address the susceptibility of rare bird species and those whose populations are in decline to collisions with wind turbines, or the potential of wind turbines to displace birds. In recent studies, bat mortality has exceeded bird mortality at many wind farms. Unlike many species of birds, bats are long-lived, have low reproductive rates, and appear to be especially vulnerable to mortality associated with wind turbines.

Because birds and bats are not evenly distributed across the landscape, the data and conclusions from previous studies at U.S. wind projects are insufficient to understand how birds, environmental factors and wind turbines interact in Wisconsin's environment. Wisconsin has little experience with wind farm projects where both pre- and post-construction studies have been conducted. In fact, there is only one site in Wisconsin where both pre- and post-construction survey work has been completed. The data from these studies are insufficient to allow for extrapolating the potential impacts on birds and bats for the Cedar Ridge project.

Well-designed pre-construction and post-construction studies are essential to understanding the nature of impacts and what mitigation, if any, should be applied. Both DNR and U. S. Fish and Wildlife Service (USFWS) biologists state that pre-construction surveys are necessary in order to establish a biological context for post-construction mortality studies and to protect against potential serious impacts at specific turbine locations. Without proper pre-construction avian and bat surveys, interpretation of results from post-construction mortality studies would be uncertain at best. DNR advises that pre-construction surveys should include, at a minimum, one complete year of surveys that cover both the spring and fall migration periods in addition to summer breeding and over-wintering populations. WP&L and its consultants concur that pre-construction studies could be important when interpreting post-construction surveys. WP&L maintains, however, that pre-construction surveys would not be useful in adjusting or micro-siting turbine sites.

Cumulative impacts are also a long-term concern for the Commission. In areas such as the Niagara Escarpment where numerous wind projects have been or will be proposed, the cumulative impact on bat populations could be serious. The cumulative effects of wind farms in eastern Wisconsin on bird populations are unknown and could potentially be significant as well. A solid baseline of bird and bat data associated with wind energy projects proposed along the escarpment will, in time, allow for a reasonable estimate of cumulative impact.

In two recent wind energy cases (dockets 6630-CE-294 and 9300-CE-100) applicants conducted pre-construction avian studies prior to the Commission's application review and decision. However, in this case WP&L did not perform adequate pre-construction surveys prior to submitting its application. WP&L's consultant spent relatively little time in the field and relied heavily on literature review and standard regional breeding bird counts. The Commission

received detailed comments from both the DNR and the USFWS regarding WP&L's lack of pre-construction biological surveys. The applicant was informed of this on September 29, 2006. On November 7, 2006, Commission, DNR, and USFWS staff began a series of meetings with the applicant to discuss and design additional pre-construction bird and bat surveys. The DNR has advised the Commission, in a letter dated April 17, 2007, that agreement had been reached on pre-construction bird and bat survey methodology. Comments from the USFWS recommend the Commission defer approval until after the studies are completed. The DNR has stated that, if the Commission approves this project, construction should be limited to the proposed substation site until detailed pre-construction surveys for birds and bats are completed and reviewed by agency staffs.

DNR and USFWS state that the construction of roads, crane paths, and collector circuits before pre-construction avian and bat surveys are complete will change the existing environment and will likely affect bird and bat behavior and habitat use unpredictably. This disturbance may reduce the reliability of the pre-construction survey work. Results of the surveys should be shared with agency staffs and a reasonable review period will also be necessary in order to allow for agency staffs to examine the survey results and comment to the Commission as to whether potential impacts warrant specific mitigation strategies.

WP&L has commented in a letter to the Commission (PSC REF # 73847) that the applicant would agree to begin pre-construction surveys in April 2007 only if such surveys do not delay construction. WP&L has indicated that it intends to begin construction immediately upon receipt of Commission approval with construction of access roads and turbine foundations expected to begin in September 2007. WP&L indicates that it needs to start construction in that time frame to be able to complete the project in 2008.

As the Commission has stated in recent decisions, Wisconsin is at the cusp of what may become a major investment in wind farms and now is the best time to develop baseline scientific knowledge about the impacts of wind turbines on avian and bat species. While the Commission recognizes the importance of pre-construction surveys to develop baseline data, it also recognizes the importance of WP&L's proposed development of wind generation to increase Wisconsin's portfolio of renewable energy resources. An appropriate balance of these interests is to require WP&L to conduct the pre-construction surveys as discussed above, but to allow construction to proceed as necessary to allow WP&L to complete construction in 2008. The construction may begin on the substation prior to completion of the pre-construction surveys. In addition, WP&L may begin engineering and field surveys for the project. All other construction activities may be commenced as follows. Within 48 hours of executing a Turbine Supply Agreement for the turbines, WP&L shall submit the executed agreement to the Commission along with a plan showing a proposed construction schedule in 2007 that achieves both of the following:

a. Maximizes the length of the avian and bat surveys to establish baseline data.

b. To the extent practicable, uses the results of the avian and bat surveys in the micro-siting of individual turbines.

Within 20 days of receipt, the Commission shall approve, modify, or reject the proposed 2007 construction plan. The Administrator of the Gas and Energy Division is delegated to review the construction plan and to make this decision.

Regarding post-construction studies, at a minimum this research must examine avian and bat mortality and that the duration of such studies should be at least two years. WP&L shall work with the regulatory agencies and other interested parties, attempting to reach consensus on

additional areas of valuable research such as bird displacement and cumulative avian and bat impacts that can be completed at reasonable cost. WP&L shall develop such a cost-effective proposal and provide it to the DNR and the Commission's Gas and Energy Division for approval.

Land Use and Development Plans

WP&L's project does not conflict with the land use plans of the local townships or Fond du Lac County.

WP&L has negotiated Lease and Wind Easements with 41 landowners. In return for use of the landowners' property, WP&L will make annual payments to each landowner until it removes the turbine equipment. The Lease and Wind Easements also oblige WP&L to protect and restore the landowners' property during construction, operation, decommissioning, and removal of the wind generation facilities.

Brownfield Siting

Under Wis. Stat. § 196.49(4), the Commission may not issue a certificate for the construction of electric generating equipment unless it determines that brownfields are used to "the extent practicable." However, Wisconsin does not have a single brownfield site, or set of contiguous sites, that would be of sufficient size and would meet the siting criteria of available wind resources, land, and electric infrastructure. WP&L's project complies with Wis. Stat. § 196.49(4).

Public Health and Welfare

WP&L's proposed wind-powered electric generating facility is a renewable resource that offers significant benefits to the state of Wisconsin. The air pollution and greenhouse gas emissions it avoids, the lack of solid waste, and the fact that it consumes virtually no water are

important environmental benefits. This project will support the state's goal of increasing its reliance upon renewable resources and will help diversify Wisconsin's pool of electric generating facilities. It fits well with existing land uses, will help preserve the agricultural nature of the project area, will impose no reliability, safety, or engineering problems upon the electric system, and based on present day knowledge, is unlikely to have undue adverse impacts on environmental values. After weighing all the elements of WP&L's project, including the conditions imposed by this Certificate and Order, the Commission finds that authorizing the project will promote the public health and welfare and is in the public interest.

Compliance with Wisconsin Environmental Policy Act

Wis. Stat. § 1.11 requires all state agencies to consider the environmental impacts of "major actions" that could significantly affect the quality of the human environment. In Wis. Admin. Code ch. PSC 4, the Commission has categorized the types of actions it undertakes for purposes of complying with this law. As provided by this rule, the Commission worked jointly with DNR to produce an EA, and took comments on the finding that an EIS was not warranted. The final EA concluded the project is unlikely to have a significant impact upon the quality of the human environment. The Commission finds that the EA complies with the requirements of Wis. Stat. § 1.11 and Wis. Admin. Code ch. PSC 4.

Project Cost and Construction Schedule

WP&L requests that the Commission authorize the project cost assuming that construction work in progress (CWIP) is included in WP&L's net investment rate base beginning January 1, 2008. To enable flexibility in turbine selection, and because a Turbine Supply Agreement has not yet been executed by WP&L with a turbine manufacturer, WP&L requests that the approved amount set by the Commission be $179 million, reflecting the higher cost

turbines, with CWIP in rate base, and with the usual order condition that if the actual project cost exceeds the approved cost by more than 10 percent, the company shall notify the Commission. On this basis, and without allowance for funds used during construction, the estimated cost of the project by major plant account is as follows:

Plant Account	**Description**	
344	Wind Turbine Generators, Engineering, Procurement, Construction Management, Erection	$160,081,508
341	Surfaced Areas, Operations Building	7,975,784
345	Met Towers, Electrical Collection, SCADA	7,471,104
345	Substation	3,257,752
340	Land	80,000
	Total Capital	**$178,866,148**

WP&L estimates that pre-construction avian and bat surveys will cost approximately $289,000. This is approximately 0.16 percent of the total project cost and is not significant when considering the total project cost.

WP&L anticipates that the project will be constructed in time for a commercial operation date of 2008.

Certificate

WP&L may construct the Cedar Ridge Wind Farm with a generating capacity of up to 98 MW, as described in its application and subsequent filings and as modified by this Certificate and Order.

Order

1. WP&L shall construct its project in conformance with the design specified in its application and subsequent filings subject to the conditions specified in this Certificate and Order.

2. The total gross project cost, assuming WP&L purchases the more expensive turbine, is estimated to be $178,866,148. If WP&L acquires a less expensive turbine, the authorized project cost is reduced accordingly.

3. This authorization is for the specific project as described in the application and at the stated cost. Should the scope, design, or location of the project change significantly, or if the project cost exceeds the above-stated figure by more than 10 percent, WP&L shall promptly notify the Commission.

4. The Commission approves all of the 41 specific sites WP&L has proposed for its turbines and associated facilities, as shown in the attached map, with a total generating capacity of up to 98 MW.

5. WP&L shall notify the Commission in writing, within ten calendar days, of each of the following: the date that each transmission study report becomes available; the date of commencement of construction of the interconnection substation; and the date of commencement of construction of project facilities other than the interconnection substation.

6. WP&L shall obtain all necessary permits prior to commencement of construction and operation of the facilities.

7. WP&L shall submit to the Commission the date that the facilities are placed in service.

8. WP&L shall submit to the Commission the final actual costs segregated by major accounts within one year after the in-service date. For those accounts or categories where actual costs deviate significantly from those authorized, WP&L shall itemize and explain the reasons for such deviations in the final cost report.

9. WP&L shall promptly notify the Commission of any substantial scope or design modifications in the approved facilities.

10. Until its facility is fully operational, WP&L shall submit quarterly progress reports to the Commission that summarize the status of construction, the anticipated date of the start of construction, the model and cost of wind turbines selected, the anticipated in-service date, the status of environmental control activities, and the overall percent of physical completion. WP&L shall include the date when construction commences in its report for that three-month period. The first report is due for the quarter ending June 30, 2007, and each report shall be filed within 31 days after the end of the quarter.

11. WP&L shall conduct pre-construction bird and bat surveys following the plans and protocols addressed in the Discussion Section of this Certificate and Order. WP&L shall provide pre-construction survey reports, including digital versions of the actual survey data in Excel format, to the USFWS, DNR and Commission no later than 30 days after the end of each study period.

12. Construction may begin on the substation prior to completion of the pre-construction surveys. In addition, WP&L may begin engineering and field surveys for the project. All other construction activities may be commenced as follows. Within 48 hours of executing a Turbine Supply Agreement for the turbines, WP&L shall submit the executed agreement to the Commission along with a plan showing a proposed construction schedule in 2007 that achieves both of the following:

a. Maximizes the length of the avian and bat surveys to establish baseline data.

b. To the extent practicable, uses the results of the avian and bat surveys in the micro-siting of individual turbines.

Within 20 days of receipt, the Commission shall approve, modify or reject the proposed 2007 construction plan.

13. WP&L shall follow DNR guidelines to control oak wilt and refrain from cutting, trimming or damaging oak trees between April 15 and July 1. WP&L shall follow the DNR's instructions strictly in order to protect area landowners against the potential loss of their oak woodlots.

14. WP&L shall conduct a post-construction study on birds, immediately following commencement of commercial operation of the project. The post-construction study shall have a duration of at least two years. WP&L shall consult with the DNR, and Commission staff regarding study design and methodology. Data collected during the study shall be submitted to USFWS, DNR and Commission staff on a quarterly basis. Prior to beginning this study, WP&L shall obtain a permit from the USFWS authorizing it to possess bird carcasses under the Migratory Bird Treaty Act.

15. WP&L shall conduct a post-construction bat study that includes two components: a population viability analysis and a fatality study. The duration of this study shall be at least two years. WP&L shall consult with the USFWS, DNR, and Commission staff regarding study design and methodology. Data collected during the study shall be submitted to USFWS, DNR and Commission staff on a quarterly basis.

16. WP&L shall prepare a soil erosion and sediment control plan prior to commencement of construction. WP&L shall use best management practices to minimize the

effects of soil erosion. WP&L's plan shall list these practices for construction at turbine sites, crane paths, and on underground collector routes.

17. WP&L shall prepare a stormwater pollution prevention plan. This plan shall include pollution control measures and best management practices for protection of both surface water and groundwater. In addition, WP&L shall use the Wisconsin Construction Site Best Management Practice Handbook to prepare all construction plans.

18. Before commencing any construction within one mile of any of the known archeological sites within the project area, WP&L shall use a Wisconsin Historical Society (WHS) or a WHS-qualified archeologist to identify the boundaries of the sites. WP&L shall use a WHS or a WHS-qualified archeologist to provide instruction to its workers in advance, and they shall contact a qualified archeologist if they have any question about field findings. WP&L shall cease construction and notify WHS if any of these resources are found. WP&L shall prepare an Unanticipated Finds Plan, to use in the event it discovers previously unknown archeological or cultural resources during construction. The plan shall describe the outer boundaries of known archeological sites and how impacts to those sites will be avoided during construction. The plan shall include contact information for the WHS, and shall provide for immediate work stoppage in the area of the find, pending further direction from WHS. WP&L shall use a WHS-qualified archeologist to visit construction sites periodically for the purpose of ensuring that the construction crews are actively searching for and protecting artifacts.

19. WP&L shall work with affected residents to mitigate the impacts of shadow flicker.

20. No turbine or other project facility may be constructed within the path of line-of-sight communication technology.

21. If the facilities contribute to television, radio, internet, or telecommunications interference, WP&L shall work with affected parties to mitigate such interference. Mitigation may include actions such as improving the antenna, changing the antenna location, supplying satellite television, and installing relays to re-transmit and boost the signal.

22. WP&L shall continue to work with interested parties, such as landowners, airport owners, neighbors, and government officials regarding the location of project facilities.

23. WP&L shall comply with the requirements of the National Electric Safety Code when constructing, maintaining and operating its facility.

24. To the extent practicable, WP&L shall avoid wetlands and water bodies when finalizing the routes for underground collector circuits. To the extent practicable, WP&L shall locate these collector circuits adjacent to turbine access roads and in a manner that will reduce landowner impacts. The underground collector circuits shall be placed in 48-inch deep trenches, or shall be buried to a depth sufficient to meet the requirements of the National Electrical Safety Code, whichever is greater.

25. To ensure the safety of the public and reliable operation of the facility, WP&L shall include a warning tape at a depth of 30 inches in areas where underground collector circuits are located in cultivated agricultural areas.

26. WP&L shall coordinate construction of project facilities to avoid or minimize outages to local electric distribution service. When outages of local electric distribution service are necessary, WP&L shall consult with the local electric distribution company and affected customers to coordinate the outages.

27. To the extent practicable, WP&L shall access its turbine locations from main roads over existing field lanes or newly constructed gravel access roads. WP&L shall avoid

moving construction equipment across agricultural fields to the extent practicable and shall obtain prior landowner permission before doing so. Wherever construction equipment travels across agricultural fields, WP&L shall restore the fields and soils to their original condition as soon as practicable after completing construction activities at each turbine location.

28. During construction and operation of the project, WP&L shall store hazardous materials within an appropriate containment area. WP&L shall use best management practices to prevent and control spills of hazardous materials during construction and operation of the project. WP&L shall prepare a plan for proper disposal of contaminated soil or other materials.

29. During construction and operation of the project, fueling of vehicles shall take place at commercial fueling facilities, to the extent practicable.

30. If on-site refueling of vehicles is required, WP&L shall implement appropriate spill control measures and make appropriate safety equipment available. WP&L shall take all necessary precautions to avoid spilling hazardous materials on soil surfaces.

31. WP&L shall control dust resulting from construction activities using standard construction practices, including watering exposed surfaces using tanker trucks, covering disturbed areas, and reduced speed limits on construction sites. WP&L shall gravel all access road surfaces to avoid dust during normal operation of the facilities.

32. WP&L shall measure post-construction noise levels, as required by the Commission's "Measurement Protocol for Sound and Vibration Assessment of Proposed and Existing Electric Power Plants," within three months after it commences commercial operation. WP&L shall consult with Commission staff before commencing its noise and vibration analysis and shall submit a report of the sound level measurements to the Commission as soon as practicable after operation of the facility commences.

33. WP&L shall provide the Commission with GIS data location information for each turbine site and all other project facilities as soon as practicable after it determines their final location. This data shall be compatible with state government standards.

34. WP&L shall notify the Commission in writing within ten days of any decision not to proceed with its project or to enter into any partnership or other arrangement with a third party concerning ownership or operation of the facility.

35. All commitments and conditions of this Certificate and Order shall apply to WP&L and to its agents, contractors, successors and assigns.

36. This Certificate and Order takes effect on the day after it is mailed.

37. Jurisdiction is retained.

Dated at Madison, Wisconsin, May 9, 2007

By the Commission:

Sandra J. Paske

Sandra J. Paske
Secretary to the Commission

SJP:JAL:mem:g:\order\pending\6680-CE-171 CA.doc

Attachment

See attached Notice of Appeal Rights

Notice of Appeal Rights

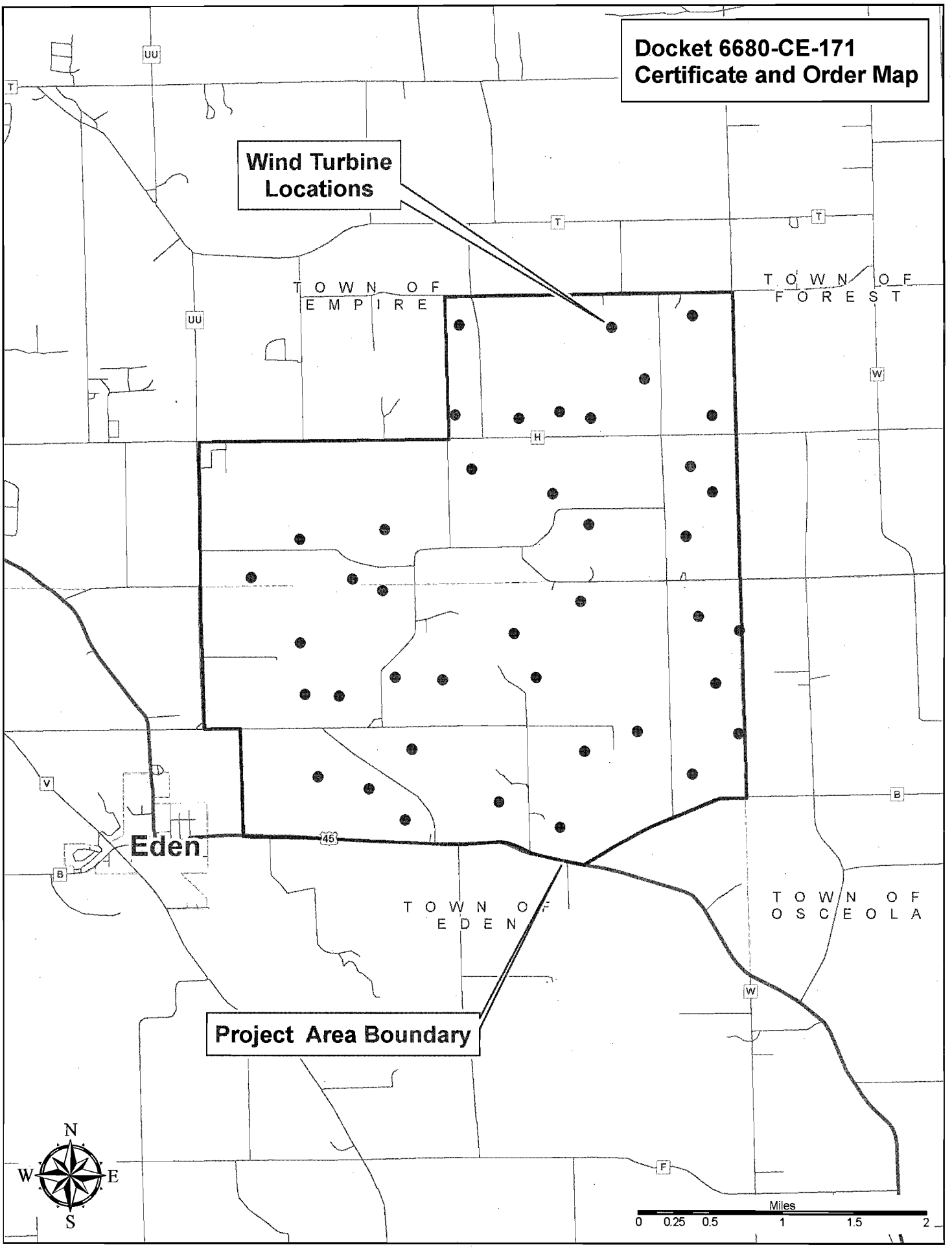
Notice is hereby given that a person aggrieved by the foregoing decision has the right to file a petition for judicial review as provided in Wis. Stat. § 227.53. The petition must be filed within 30 days after the date of mailing of this decision. That date is shown on the first page. If there is no date on the first page, the date of mailing is shown immediately above the signature line. The Public Service Commission of Wisconsin must be named as respondent in the petition for judicial review.

Notice is further given that, if the foregoing decision is an order following a proceeding which is a contested case as defined in Wis. Stat. § 227.01(3), a person aggrieved by the order has the further right to file one petition for rehearing as provided in Wis. Stat. § 227.49. The petition must be filed within 20 days of the date of mailing of this decision.

If this decision is an order after rehearing, a person aggrieved who wishes to appeal must seek judicial review rather than rehearing. A second petition for rehearing is not an option.

This general notice is for the purpose of ensuring compliance with Wis. Stat. § 227.48(2), and does not constitute a conclusion or admission that any particular party or person is necessarily aggrieved or that any particular decision or order is final or judicially reviewable.

Revised 9/28/98


Docket 6680-CE-171
Certificate and Order Map
Wind Turbine Locations
TOWN OF EMPIRE
TOWN OF FOREST
Eden
TOWN OF EDEN
TOWN OF OSCEOLA
Project Area Boundary
N
W
E
S
Miles
0 0.25 0.5 1 1.5 2