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PUBLIC SERVICE COMMISSION OF WISCONSIN

Application for a Certificate of Public Convenience and Necessity of
Badger Hollow Solar Farm, LLC to Construct a Solar Electric Generation
Facility, to be Located in Iowa County, Wisconsin

9697-CE-100

FINAL DECISION

On June 5, 2018, pursuant to Wis. Stat. § 196.491 and Wis. Admin. Code chs. PSC 4 and 111, Badger Hollow Solar Farm, LLC (Badger Hollow) filed with the Commission an application for a Certificate of Public Convenience and Necessity (CPCN) to construct a new solar photovoltaic electric generation facility.¹ Badger Hollow's proposed generation facility would be a wholesale merchant plant as defined by Wis. Stat. § 196.491(1)(w), and would have a generating capacity of up to 408 megawatts (MW) direct current (DC) and up to 300 MW alternating current (AC). The proposed project would be located on approximately 3,500 acres of primarily agricultural land in Iowa County, Wisconsin. The major components of the proposed project include the photo voltaic (PV) panels, power conversion units (PCU), collection lines, a collector substation, and an operations and maintenance (O&M) building.

The CPCN application is APPROVED subject to conditions and as modified by this Final Decision.

Introduction

The Commission determined Badger Hollow's application in this docket was complete on August 21, 2018. ([PSC REF#: 348976](#).) A Notice of Proceeding was issued on October 4, 2018.

¹ In addition to the solar generation facility, Badger Hollow is also proposing to construct a new 138 kV generator tie line that would connect the proposed new generation facility, specifically, the new 34.5kV/138 kV collector substation to the existing electric transmission system. The Commission is reviewing the tie line in docket 9697-CE-101.

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([PSC REF#: 351185.](#)) Wisconsin Stat. § 196.491(3)(g) requires that the Commission take final action within 180 days after it finds a CPCN application complete unless an extension of no more than 180 days is granted by the Commission Chairperson. On December 20, 2018, the Commission Chairperson granted a 180-day extension. ([PSC REF#: 355906.](#)) The Commission must take final action on or before August 16, 2019 or the application is approved by operation of law. *See* Wis. Stat. § 196.491(3)(g).

A Prehearing Conference was held on November 9, 2018. ([PSC REF#: 353179.](#)) Requests to intervene were granted to American Transmission Company LLC (ATC), Citizens Utility Board of Wisconsin (CUB), Dairyland Power Cooperative, ITC Midwest LLC (ITC), RENEW Wisconsin (RENEW), Wisconsin Industrial Energy Group (WIEG), Clean Wisconsin, Brenda and Casey Kite (Kites), Richard and Patricia Jinkins, Alan and Marcia Jewell, and Wade Wendhausen.² ([PSC REF#: 351773](#), [PSC REF#: 352599.](#)) The parties, for the purposes of review under Wis. Stat. §§ 227.47 and 227.53, are listed in Appendix A.

The Commission's action regarding a solar electric generation facility is considered a Type III action under Wis. Admin. Code § PSC 4.10(3). Type III actions normally do not require preparation of an environmental assessment (EA) or an environmental impact statement (EIS) under Wis. Admin. Code § PSC 4.10(3). However, an evaluation of a specific Type III proposal may indicate that the preparation of an EA or EIS is warranted for that proposal. The Commission decided to prepare an EA for the proposed project due to the size and amount of land that would be

² Richard and Patricia Jinkins, Alan and Marcia Jewell, and Wade Wendhausen collectively refer to themselves and will be referred to herein as the Jewell Jinkins Intervenors.

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covered by the proposed project and the ability to use the EA process to seek public comments on the proposal.³

Commission staff worked jointly with the Wisconsin Department of Natural Resources (DNR), and on December 12, 2018, produced a preliminary determination that no significant environmental effects are expected to result from the proposed project. The preliminary determination letter summarized some of the environmental impacts analyzed in the EA.

[\(PSC REF#: 355117.\)](#) The Commission took comments on this preliminary determination and on January 14, 2019, issued a final EA regarding the proposed project, which is entered as an exhibit into the record, pursuant to Wis. Stat. § 1.11 and Wis. Admin Code chs. NR 150 and PSC 4.

[\(PSC REF#: 357519.\)](#) As a result of the EA, the Commission determined that the preparation of an EIS was not required.

The Commission issued a Notice of Hearing on December 7, 2018. [\(PSC REF#: 354871.\)](#) The Commission held technical hearing sessions in Madison on January 16, 2019. At the technical sessions, expert witnesses offered testimony and exhibits on behalf of Badger Hollow, CUB, Jewell Jinkins Intervenors, the Kites, and Commission staff.⁴ Public comment hearing sessions were held in the project area on January 24, 2019 in Dodgeville, Wisconsin. At the public comment hearings, the Commission accepted both oral and written testimony from members of the public.⁵ The Commission also accepted comments from members of the public through its

³ As part of the Commission's review of the proposed project, it performed a consolidated EA for both the generation (9697-CE-100) and the tie line (9697-CE-101) proceedings. The tie line is a Type II action under Wis. Admin. Code § PSC 4.10(2). The Commission prepared the EA to cover both the solar generation facility and tie line in one environmental review document.

⁴ [PSC REF#: 359870.](#)

⁵ Ex.-PSC-Public Comments ([PSC REF#: 359043](#)); Tr. 235-316 Public Hearing Sessions ([PSC REF#: 358553](#), [PSC REF#: 358555](#)).

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website. The Commission conducted its hearings as Class 1 contested case proceedings, pursuant to Wis. Stat. §§ 196.491(3)(b), 227.01(3)(a), and 227.44.

The issue for hearing, as determined at the November 9, 2018, prehearing conference, was:

Does the project comply with the applicable standards under Wis. Stat. §§ 1.11, 1.12, 196.025, 196.49, and 196.491, and Wis. Admin. Code chs. PSC 4 and 111?

Initial and reply briefs were filed on January 30, 2019, and February 6, 2019, respectively. Initial briefs were filed by Badger Hollow, Clean Wisconsin, CUB, Jewell Jinkins Intervenors, and the Kites. ([PSC REF#: 358874](#), [PSC REF#: 358604](#), [PSC REF#: 358594](#), [PSC REF#: 358593](#), [PSC REF#: 360170](#).) Reply briefs were filed by Badger Hollow, Jewell Jinkins Intervenors, and Clean Wisconsin and RENEW Wisconsin. ([PSC REF#: 359107](#), [PSC REF#: 359112](#), [PSC REF#: 360157](#).)

The Commission discussed the record in this matter at its open meeting of April 11, 2019.

Findings of Fact

1. Badger Hollow is an affiliate of Invenenergy LLC. Badger Hollow proposes to construct a solar electric generation facility as a wholesale merchant plant as defined by Wis. Stat. § 196.491(1)(w), with a generating capacity of up to 408 MW DC and 300 MW AC.
2. The proposed project is a solar electric generation facility and a “noncombustible renewable energy resource” under Wis. Stat. §§ 1.12 and 196.025 and is entitled to the highest priority of all energy generation resources. It is uncontested that energy and capacity from the proposed project cannot be replaced by energy conservation and efficiency.
3. The facility design and location approved by this Final Decision are in the public interest considering alternative locations or routes, individual hardships, safety, reliability, and environmental factors. Wis. Stat. § 196.491(3)(d)3.

4. The facilities approved by this Final Decision will not have undue adverse impacts on environmental values including ecological balance, public health and welfare, historic sites, geological formations, aesthetics of land and water, and recreational use.

Wis. Stat. § 196.491(3)(d)4.

5. The facilities approved by this Final Decision will not unreasonably interfere with the orderly land use and development plans for the area. Wis. Stat. § 196.491(3)(d)6.

6. The facilities approved by this Final Decision will not have a material adverse impact on competition in the relevant wholesale electric service market. Wis. Stat.

§ 196.491(3)(d)7.

7. A brownfield site for Badger Hollow's proposed project is not practicable. Wis. Stat. § 196.491(3)(d)8.

8. The facilities approved by this Final Decision will affect local farmland, but Badger Hollow does not have condemnation authority. As there will be no potential to acquire farmland through eminent domain for the proposed project, the Wisconsin Department of Agriculture, Trade and Consumer Protection did not issue an agricultural impact statement.

9. The facilities approved by this Final Decision will affect state highways and will require permits from the Wisconsin Department of Transportation.

10. The facilities approved by this Final Decision will affect waterways and wetlands, and will require permits from DNR for construction in waterways and wetlands, construction site erosion control, and storm water handling.

11. The facilities approved by this Final Decision may affect endangered and threatened species, and Badger Hollow will need to consult with the DNR Bureau of Natural Heritage Conservation to ensure compliance with the state's endangered species law.

12. The facilities approved by this Final Decision will require Badger Hollow to obtain permits from, provide notifications to and coordinate with various federal agencies, *e.g.*, U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service.

13. Critical proposed facilities that could be damaged by flooding are not located in the 100 year flood plain. Consequently, there is no flood risk to the project per 1985 Executive Order 73 (Order 73).

Conclusions of Law

1. The Commission has jurisdiction under Wis. Stat. §§ 1.11, 1.12, 44.40, 196.02, 196.025, 196.395, and 196.491, and Wis. Admin. Code chs. PSC 4 and 111, to issue a CPCN authorizing Badger Hollow to construct and place in operation the proposed electric generation facilities described in this Final Decision and to impose the conditions specified in this Final Decision.

2. The Badger Hollow solar generation facility is a wholesale merchant plant, as defined in Wis. Stat. § 196.491(1)(w).

3. The proposed electric generation facility complies with the Energy Priorities Law as required under Wis. Stat. § 1.12 and 196.025(1).

4. In issuing a CPCN, the Commission has the authority under Wis. Stat. § 196.491(3)(e) to include such conditions as are necessary to comply with the requirements of Wis. Stat. § 196.491(3)(d).

5. This is a Type III action under Wis. Admin. Code § PSC 4.10(3), and typically requires neither an EIS under Wis. Stat. § 1.11 nor an EA; however, an evaluation of this specific Type III action indicated that an EA was warranted for the proposed project

6. The Commission prepared an EA and made a finding that no significant impacts to the environment would result from construction of the solar facilities.

Opinion

Project Description

Badger Hollow proposes to construct a new solar electric generation facility as a wholesale merchant plant as defined by Wis. Stat. § 196.491(1)(w), with a generating capacity of up to 408 MW DC and up to 300 MW AC. The proposed facility will be located in the village of Cobb, and the towns of Mifflin, Eden, and Linden, in Iowa County, Wisconsin. The major components of the proposed project include the PV panels, PCUs, collection lines, a collector substation, and an O&M building.

Badger Hollow has not yet determined the manufacturer and model of panels it will use for the proposed project, but estimates that it will use between 900,000 and 1,200,000 panels to obtain a direct current (DC) output of up to 408 MW. These panels measure approximately 2.0 meters by 1.0 meters and generate between 335 and 445 watts each. The panels would connect to a single-axis tracking system that would allow the PV panels to follow the sun from east to west, throughout the day. The two main components of the PCUs are the inverters and pad-mounted transformers which would be required to convert the generated DC power in AC power and step up the voltage to 34.5 kV. The capacity of the PCUs would total up to 300 MW AC. The underground AC collection lines would carry the power generated by the PV panels to the collector substation. The collector lines would total approximately 55 miles, and would consist of 15 feeders. The solar PV array will connect to a new 34.5 kV/138 kV project collector substation.

If approved, two Wisconsin public utilities propose to purchase a portion of the Badger Hollow project and the associated generation tie line. The Commission is reviewing the proposed acquisition in docket 5-BS-228. Based upon the record in this docket, it appears that the utilities' current plan is to acquire a portion of the Badger Hollow project prior to the completion of construction with the assumption the Commission approves the projects and other conditions precedent to closing are satisfied.

Questions were raised in this docket relating generally to the appropriateness of the structure and bifurcation of the proceedings between this CPCN docket and docket 5-BS-228. Some questioned whether, in light of the proposed acquisition, the proposed solar facility qualifies as a wholesale merchant plant as defined in Wis. Stat. § 196.491(1)(w) such that issuance of a CPCN to Badger Hollow in this docket complies with applicable law. Others questioned whether the proposed acquisition, which was analyzed under Wis. Stat. § 196.49 should have been analyzed in this docket under Wis. Stat. § 196.491. The Jewell Jenkins Intervenors also asserted that the Commission should open a rulemaking proceeding in lieu of this proceeding.

As a threshold matter, the Commission concludes that Badger Hollow's application has been appropriately reviewed and considered by this Commission as a wholesale merchant plant. While acquisition of a portion of the solar facility has been proposed, as of the date of this Final Decision, there has been no sale. No asset purchase agreement detailing the Badger Hollow transaction has been filed. Therefore, it remains appropriate to evaluate the proposed project as a merchant plant. This is consistent with previous Commission decisions authorizing the transfer of

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a merchant CPCN to a public utility prior to completion of construction of the project.⁶ Further, nothing in Wis. Stat. § 196.491 prohibits the transfer of rights granted under a CPCN.

As a wholesale merchant plant, the Commission's review in this docket was appropriately limited to those statutory criteria applicable to merchants. The fact that a project may be acquired by a public utility at some point in the future does not transform the project into a non-merchant plant nor does it require that the potential would-be buyers be co-applicants. While the law precluded a review of statutory criteria inapplicable to merchant plants in this docket, the Commission did undertake a review of the additional criteria relevant to non-merchant facility in docket 5-BS-228. The fact the Commission undertook its review in separate dockets does not make the proceedings in this docket procedurally deficient based upon the specific facts of this docket and the related proceeding in 5-BS-228. All parties to this docket were given ample opportunity to participate in this and the related dockets. No party has identified what additional procedural rights would have been afforded to them if the Commission had considered these matters in a single docket. Both this proceeding and the related acquisition proceeding were handled as contested cases and hearings were held. The schedules in the proceedings and preparation of the administrative records all occurred in a coordinated manner. The Commission is reviewing and making decisions in this and related dockets contemporaneously. The Commission has reviewed the proposed project, and the related acquisition, in a holistic or comprehensive matter that complied with the procedural requirements of the CPCN law.

⁶ See *Application of Wisconsin Power and Light Company and Sheboygan Power, LLC for a Certificate of Public Convenience and Necessity for Construction of an Electric Generation Facility to be Located in Sheboygan County*, Docket 6680-CE-168; *Application of Wisconsin Power and Light Company for Approval of Affiliated Interest Agreements Comprising a Leased Generation Contract with Sheboygan Power, LLC*, docket 6680-AE-108, May 18, 2005.

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The Commission also concludes that the CPCN process applicable to the proposed project provides detailed statutory and regulatory review criteria such that a separate rulemaking proceeding for solar-specific rules is unwarranted and unnecessary at this time. The Commission previously reviewed and denied the request for a separate solar siting rulemaking in docket 1-AC-254 and adopts its prior reasoning in response to the claims in this docket for the same relief. ([PSC REF#: 359090.](#))

The proposed solar electric generation facility will be one of the first large, utility-scale solar installations in the state of Wisconsin. Although the Commission has not before considered an application for the construction of a utility-scale solar facility, the evaluation of technical and complex projects, such as the one proposed in this docket, is an area in which the Commission has special expertise. Since 1907, the Commission has regulated public utilities to ensure that “reasonably adequate service and facilities” are available to the public at rates that are “reasonable and just.” Wis. Stat. § 196.03(1). The Commission’s expertise in administering Wis. Stat. § 196.491 to determine what proposed projects are appropriate and in the public interest has long been recognized by Wisconsin courts. *Wisconsin Power & Light Co. v. Pub. Serv. Comm’n of Wisconsin*, 148 Wis. 2d 881, 888, 437 N.W.2d 888, 891 (Ct. App. 1989); *see also Clean Wisconsin, Inc. v. Public Service Commission of Wisconsin*, 2005 WI 93, 282 Wis. 2d 250, 700 N.W.2d 768 (recognizing the Commission’s expertise in reviewing proposed construction projects under Wis. Stat. § 196.491).

Determining whether a proposed project is in the public interest often requires a high degree of discretion, judgment, and technical analysis. Such decisions involve intertwined legal, factual, value, and public policy determinations. The Commission, as the finder of fact, is charged with sifting through all of the information and applying the statutory criteria to reach a well-

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reasoned decision. In doing so, the Commission uses its experience, technical competence and specialized knowledge to determine the credibility of each witness and the persuasiveness of the highly technical evidence presented on each issue. The Commission's expertise is particularly important in cases such as this where the proposed project is one of first impression.

Interconnection of the Facility to the Existing Electric Transmission System

The transmission interconnection facilities requirements for the proposed project are being determined through the Midcontinent Independent System Operation, Inc. (MISO) Generator Interconnection Queue study process. Badger Hollow filed Interconnection Requests with MISO and is in the MISO August 2017 DPP Study Cycle, with the assigned queue position of J870 and J871. For each queue position, Badger Hollow requested 200 MW and 100 MW, respectively. At the time of this Final Decision, the reviews of queue positions J870 and J871 are not far enough along in the study process to provide specific answers from MISO or the transmission owner about what transmission or interconnection facilities upgrades are required. The Phase I study results were completed on January 22, 2019. Further study results and a signed generator interconnection agreement (GIA) are forthcoming.

The status of the study process does not, however, preclude Commission action in this docket. *See, e.g.* Wis. Stat. § 196.491(3)(a)2m. The robust record in this proceeding provides all of the necessary evidence upon which the Commission can assess whether the statutory criteria for the issuance of a CPCN is in the public interest.

Energy Priorities Law

When reviewing a CPCN application, the Commission considers Wis. Stat. § 1.12 and 196.025(1), known as the Energy Priorities Law, which establishes the preferred means of meeting Wisconsin's energy demands. 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.
- (cm) Advanced nuclear energy using a reactor design or amended reactor design approved after December 31, 2010, by the U.S. Nuclear Regulatory Commission.
- (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 that the Commission shall implement these priorities in making all energy-related decisions to the extent they are cost-effective, technically feasible and environmentally sound. Badger Hollow does not dispute that the Energy Priorities Law applies in this case, and as discussed below, there is ample evidence to show the proposed project satisfies the requirements of the Energy Priorities Law.

The Commission has an obligation to consider these priorities in all energy related decisions including construction of new electric generation facilities.⁷ In the Commission's Final Decision in the Glacier Hills docket⁸ the Commission concluded that it "must implement state

⁷ Wis. Stat. § 196.025(1)(ar) provides:

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 and orders, including advance plan, rate setting and rule-making orders.

⁸ *Application of Wisconsin Electric Power Company for a Certificate of Public Convenience and Necessity to Construct a Wind Electric Generation Facility and Associated Electric Facilities, to be located in the Towns of Randolph and Scott, Columbia County, Wisconsin*, docket 6630-CE-302 (January 22, 2012), ([PSC REF#: 126124.](#))

energy policy when reviewing any application.” While it is true that the limited inquiry into cost and alternatives mandated by the CPCN law for wholesale merchant plant applications does not allow the Commission to make a finding regarding the cost-effectiveness of a proposed merchant plant relative to other energy priority alternatives, the Commission is still tasked with determining whether the proposed project is in the public interest. Inherent in this inquiry is an assessment of how the proposed project fits in with the state’s energy policy, which is a statement of the public priorities for meeting the state’s electric generation needs. The Energy Priorities Law instructs the Commission to implement the energy priorities to the extent they are environmentally sound, and the Commission must assess the environmental impacts of a wholesale merchant plant under Wisconsin Statute section 196.491(3)(d)3. Therefore, the Commission still must assess whether a proposed wholesale merchant plant project that ranks high on the energy priorities list is environmentally sound. Therefore, it is appropriate for the Commission to assess how the proposed project fits within the state’s preferred means of meeting Wisconsin’s energy needs as listed in the Energy Priorities Law.

The proposed project will be a new solar electric generation facility. As such, it is a “noncombustible renewable energy resource” and is entitled to the highest priority of all energy generation resources under the Energy Priorities Law. While certain intervenors vaguely asserted that the Energy Priorities Law has not been satisfied because alternatives to the proposed project were not reviewed, no substantive evidence was offered to demonstrate how the energy and capacity from the proposed project could be replaced by energy conservation and efficiency, the highest priority alternative. Further, objecting intervenors ignore the objective of the law which is to deploy environmentally preferable options first when meeting Wisconsin’s energy needs, not require that measures such as conservation or energy efficiency displace a project if not obviously

technically feasible or more cost-effective. This project aligns with that objective. Therefore, the Commission finds that the proposed project, as the highest priority of all energy generation resources, satisfies the requirements of the Energy Priorities Law and furthers the public policy of the state in encouraging the development of renewable resources.⁹ The final EA confirmed that the proposed project is “unlikely to have a significant impact on the human environment as defined in Wis. Stat. § 1.11” and that “[c]ommission staff has not identified any potential environmental effects of the proposed project that could be considered significant.” ([PSC REF#: 357519](#) at 68.)

Siting

The Commission must consider alternative locations when determining whether a proposed generating plant is in the public interest. Wis. Stat. § 196.491(3)(d)3. A CPCN application must describe the siting process, identify the factors considered in choosing the alternative sites, and include specific site-related information for each site. Wis. Admin. Code § PSC 111.53(1)(e-f). The Badger Hollow CPCN application complies with these requirements. It explains the “macro-siting” process used to screen areas in Wisconsin based upon the solar resource, land area, and access to electric transmission infrastructure. It also describes how specific solar siting areas were selected and how Badger Hollow confirmed the suitability of these locations. The record reflects examination of each of the solar siting areas. In addition, Badger Hollow identified and provided information regarding 25 percent more siting areas on leased properties within the project area that meet all of its siting criteria.

The Commission’s standard for reviewing proposed siting areas is to determine whether each proposed site is “reasonable,” *i.e.*, is it a feasible location for the project that would not

⁹ See Wis. Stat. §§ 1.12(3)(b) and 196.377.

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directly conflict with any of the statutory criteria for granting a CPCN, and whether the sites are sufficiently distinct to offer different packages of benefits that present the Commission with a choice. The Wisconsin Supreme Court affirmed this standard in *Clean Wisconsin et al. v. Public Service Commission of Wisconsin and Wisconsin Department of Natural Resources*, 2005 WI 93, ¶¶ 66-70. In a previous docket concerning a wind farm,¹⁰ the Commission found that the project applicant met the requirement to offer site alternatives by identifying 25 percent more turbine locations than it proposed to develop. On appeal, the Dodge County Circuit Court affirmed this method of offering site alternatives for a wind farm.¹¹

The siting areas that Badger Hollow has identified meet both of these standards. They provide differing environmental and participant impacts, and the alternate areas offer more than 25 percent additional possible solar siting areas.

Badger Hollow provided descriptions of the variables used to arrive at the selection of the project array sites. The list of the site variables evaluated consists of:

- transmission and injection capacity;
- proximity to existing land and infrastructure;
- constructability, topography;
- environmental factors, site suitability;
- cultural and historic resources, site suitability;
- development, construction, and O&M efficiencies; and,
- customer and landowner feedback.

¹⁰ *Application of Forward Energy LLC for a Certificate of Public Convenience and Necessity to Construct a Wind Electric Generation Facility and Associated High Voltage Electric Transmission Facilities, to be Located in Dodge and Fond du Lac Counties*, docket 9300-CE-100 (July 14, 2005).

¹¹ *Horicon Marsh Systems Advocates and Joe M. Breaden v. Public Service Commission of Wisconsin and Forward Energy LLC*, Dodge County Case No. 05-CV-539; “Memorandum Decision and Order” of Circuit Judge John R. Storck (March 23, 2006).

The proximity to the existing transmission grid and relatively level and open fields influenced the selection of the project area.

As part of its application, Badger Hollow provided 25 percent more solar siting areas than required to construct the proposed project to its maximum capacity. The Commission requires these additional siting areas for two reasons:

- To provide flexibility such that, in the event that during the Commission's review some of Badger Hollow's siting areas become undesirable or unusable, those areas may be avoided and alternate siting areas be used instead.
- To resolve unforeseen problems that could arise during the construction process, such as: protecting social, cultural, or environmental resources; avoiding unanticipated sub-surface conditions; accommodating governmental requests; addressing concerns that a landowner may have during the course of construction; taking advantage of opportunities to minimize construction costs; or, improving the levels of electric generation.

Authorized Project Site

The Commission authorizes all of the proposed solar array sites. The proposed sites meet the siting criteria of Wis. Stat. §§ 196.491(3)(d)3. or 4. and would not cause undue individual hardships or adverse impacts on the environment.

Badger Hollow employed a three-tiered approach (with tiers at the state, regional, and project area levels) to determine the best location when factoring solar resource, proximity to transmission infrastructure, topography, ground cover, and community acceptance. The parties did not question Badger Hollow's analysis that the proposed site provided ideal resources for the solar facilities because of its proximity to the transmission grid, its solar resource profile, and the

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support of many area landowners. Badger Hollow also provided the Commission with sufficient siting alternatives for evaluation, providing over 25 percent alternative panel siting.

Badger Hollow committed to improving the native herbaceous habitat available under the panels and in the general project area with revegetated native grasses that resident wildlife will use at the site for habitat and food. Badger Hollow agreed with Commission staff's recommendation to use eight foot tall deer fence, which will further reduce wildlife impacts and improve the aesthetics of the proposed project.

The Commission appreciates the expressed concerns of some landowners, in particular the concerns related to the transfer of land use from farming to solar electric generation. The Commission notes Badger Hollow made efforts to try and work with landowners, both participating and non-participating. For example, the Commission notes Badger Hollow's expressed willingness to extend good neighbor payments to affected landowners. Badger Hollow also employed a robust community outreach plan as evidenced by use of a local operating contract (LOC) with the local communities that addresses and mitigates potential hardships by addressing decommissioning, setbacks and visual buffers, site lighting, replacement of lost property tax revenue, protections against future changes in laws, use of local roads, insurance, storm water management, and limitations on use of high-class soils. These are but a few examples of the efforts Badger Hollow made to address individual hardships.

The Jewell Jinkins Intervenors are critical of Badger Hollow's work with the local communities to address setbacks and zoning issues. Yet, its criticisms are generally of the fact that Badger Hollow was *successful* in reaching consensus with local officials regarding local zoning and land use requirements. Concerns regarding Badger Hollow's methods were not substantiated, nor do these concerns constitute an individual hardship. Similarly, the Jewell Jinkins Intervenors

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raised as evidence of hardship the fact that certain farmland used by its constituent intervenors has been leased to Badger Hollow. The Commission is sensitive to the loss of agricultural land. However, the Commission does not find it reasonable to conclude that the voluntary leasing by the owners of such property to Badger Hollow constitutes an individual hardship. The Jewell Jinkins Intervenor did not present any evidence, for example, showing that the loss of such farmland is so significant that replacement farmland cannot be found in the market. The Commission also observes that while the proposed project will use approximately 2,200 acres of farmland, this is a small part of the 440,000 acres of agricultural land in Iowa County.

The Kites introduced an appraisal showing that they might experience reduced land values from the construction of the project. Badger Hollow countered that it had amended the lease with the landowner adjacent to the Kites' property to ensure that no facilities would be built on the parcel immediately adjacent to the Kites, resulting in a substantial setback from the Kites' property. Badger Hollow also submitted expert testimony and supporting market data from Wisconsin and other states that supports the conclusion that the proposed project will not have a negative impact on rural residential or agricultural property values in the surrounding area. The Commission has previously rejected the proposition that wind generation facilities adversely affect property values¹² and nothing in this record persuades the Commission that it should alter this opinion.

¹² See, e.g., *Application of Forward Energy LLC for a Certificate of Public Convenience and Necessity to Construct a Wind Electric Generation Facility and Associated High Voltage Electric Transmission Facilities, to be Located in Dodge and Fond du Lac Counties*, docket 9300-CE-100 (July 14, 2005); *Application of Wisconsin Electric Power Company for a Certificate of Public Convenience and Necessity to Construct a Wind Electric Generation Facility and Associated Electric Facilities, to be located in the Towns of Randolph and Scott, Columbia County, Wisconsin*, docket 6630-CE-302 (January 22, 2012).

The Kites also raised concerns that if Badger Hollow expands and is eventually owned by public utilities with the power of eminent domain, Badger Hollow may be able to put additional solar panels as close as fifty feet to their property line under the LOC. The Commission finds Badger Hollow has sufficiently mitigated impacts to the Kites by amending its solar layout. Further, to the extent Badger Hollow is expanded by future utility owners who possess the power of eminent domain, the conditions imposed by this Final Decision make clear that any future project additions by the public utility will require a new CPCN. Concerns regarding those future projects can again be addressed at that time.

The Kites identified two health and safety issues that are addressed by the Commission's conditions: submission of a decommissioning plan and conducting stray voltage testing. Further, the Commission is not persuaded there will be an overall devaluation of property for the reasons noted above, unreasonable glare, or noise. Noise and glare studies were done for the project, and the Commission is requiring Badger Hollow conduct additional noise testing. With respect to glare, the Kites raised concerns that even with vegetative screening, fencing, and other measures will not reduce glare from certain parts of their property and will increase obstructions around their property. While true that the solar facilities will inevitably be seen by surrounding landowners, the Commission is tasked with determining whether such impacts will cause an undue hardship. Due to the nature of the facilities, they will be visible to some degree by neighboring landowners. The Commission cannot reject a project simply because it will be visible; there must be a demonstrated hardship. The EA concluded there was no significant risk or glint or glare and did not identify any potential negative effects that could be considered significant from the proposed project.

While certain intervenors have objected to the proposed project, many others testified in support and the record contains evidence as to significant economic benefits the proposed project will bring to local residents and the communities. ([PSC REF#: 359028](#)) Local farmers will financially benefit from lease payments which are projected to be greater than the revenues that could be generated through agricultural use. New job growth is also anticipated, with 400 new local jobs during construction and seventeen new local long-term jobs once the facility is operational.

For all these reasons and based upon the evidence in the administrative record for this proceeding,¹³ the Commission finds the design and location is in the public interest considering individual hardship, economic, safety, reliability and environmental factors. While there will be changes to the landscape and environment as a result of the proposed project, these impacts can be mitigated through the conditions imposed by the Commission and further discussed below.

Brownfield Sites

Wisconsin Stat. § 196.491(3)(d)8. provides that a CPCN generating project must be sited in a brownfield area “to the extent practicable.” The project as proposed requires approximately 3,500 acres of nearly contiguous developable land in close proximity to existing transmission facilities. None of the parties identified in Wisconsin brownfield sites met the siting requirements of the proposed project. The Jewell Jinkins Intervenors speculate that perhaps, in sum, multiple brownfields in Southwest Wisconsin could accommodate the amount of land needed for the project. However, the Jewell Jinkins Intervenors present no evidence to show its suggestion is practicable. Based on the practicalities of siting a solar electric generating project of this size, and

¹³ The Commission takes official notice of the evidence received in docket 9697-CE-101 pursuant to Wis. Stat. § 227.45(2).

the requisite transmission facilities required in proximity to such a project, and given the brownfields review that was conducted by Badger Hollow identified no brownfield site that would provide a practicable alternative site for the project, the Commission finds that the proposed project satisfies the requirement under Wis. Stat. § 196.491(3)(d)8.

Material Adverse Impact on the Wholesale Electric Market

Under Wis. Stat. § 196.491(3)(d)7, the Commission may only issue a CPCN for a project that “will not have a material adverse impact on competition in the relevant wholesale electric service market.” The proposed project would inject additional energy into the wholesale market and is anticipated to have a positive impact on the market. The Jewell Jinkins Intervenors speculate that uncertainties regarding the proposed project may affect the wholesale market. However, the Jewell Jinkins Intervenors do not present any evidence as to the degree of any adverse impact on competition, and the relevant inquiry is whether the project will have a material adverse impact on competition in the relevant wholesale electric service market. As a wholesale merchant plant, concerns regarding horizontal market power are not at issue. If the solar facilities are purchased by Wisconsin utilities, the concern remains unchanged as capacity and energy from the project would be subject to market mitigation measures and oversight of MISO’s independent market monitor that restricts any ability to raise prices above competitive levels.¹⁴ As such, the Commission finds that the proposed project meets the requirements of Wis. Stat. § 196.491(3)(d)7.

¹⁴ *Application of Wisconsin Electric Power Company for a Certificate of Public Convenience and Necessity to Construct a Wind Electric Generation Facility and Associated Electric Facilities, to be located in the Towns of Randolph and Scott, Columbia County, Wisconsin*, docket 6630-CE-302 (January 22, 2012). ([PSC REF#: 126124 at 20.](#))

Land Use and Development Plans

Wisconsin Stat. § 196.491(3)(d)6 requires that a proposed generating facility not “unreasonably interfere with the orderly land use and development plans for the area involved.” A utility infrastructure project will have some an impact on land use and development plans for the area involved. The question is whether the proposed project will “unreasonably interfere” and must also take into account the benefits of the project. The land where the proposed project would be constructed is classified as agricultural in local land use plans. Comments were received from members of the public that discussed the impacts to farmland as a result of the proposed project. Some commenters stated their belief that the proposed project will have a positive impact on farmland in and around the project area while others believed the impact will be negative. The Commission takes seriously that areas within the fenced solar arrays would be taken out of agricultural production for the life of the project. However, this area is a small part of the total agricultural land available in Iowa County. Additionally, Badger Hollow has demonstrated that the proposed project is consistent with Wisconsin’s Farmland Preservation Law, Iowa County’s Comprehensive Land Use Plan, and each affected town’s land use plan, all of which focus on the agricultural nature of the land. Further, the towns of Eden and Linden have confirmed compliance in writing.

Badger Hollow is not a public utility and does not possess statutory eminent domain authority. Badger Hollow must secure long-term lease agreements with landowners in the project area to acquire the property for the generating facility. The changes to land use are agreed to by the landowners that have signed leases with Badger Hollow, and after decommissioning, the land may return to agricultural land use. Since the use of the land is negotiated between Badger Hollow and the property owners, the Commission recognizes the consensual and ultimately temporary

nature of the proposed land use for the project. Relatedly, the project appears to create the potential for economic benefits to accrue to the property owners and the larger area involved.

The Commission recognizes that the proposed project will create some impacts on the land use in the project area, but finds that the project will not unreasonably interfere with the orderly land use and development plans of the project area.

Public Health and Welfare

As the Wisconsin Supreme Court has declared, issuing a CPCN is a legislative determination involving public policy and statecraft. *Clean Wisconsin, Inc. v. Pub. Serv. Comm'n of Wisconsin*, 2005 WI 93, ¶ 35, 282 Wis. 2d 250, 700 N.W.2d 768. Wisconsin Stat. § 196.491 assigns to the Commission the role of weighing and balancing many conflicting factors. Applying Wisconsin's Siting Priority Laws requires a similar weighing and balancing. In order to determine whether construction of a new electric generating facility is reasonable and in the public interest, the Commission must not just apply the priority list in Wis. Stat. § 1.12(4), but also must examine the conditions written into that law and consider the purpose of the legislation.

These statutes require that when the Commission reviews a CPCN application for a wholesale merchant plant generating facility, it must consider alternatives, individual hardships, safety, reliability, a host of environmental factors, any interference with orderly local land use and development plans, and potential impacts to wholesale electric competition. Ultimately, the Commission must determine whether granting or denying a CPCN applicant's request will promote the public health and welfare.

In preparing the EA for this project, Commission staff reviewed the information from Badger Hollow's CPCN application, responses to Commission staff data requests, maps, GIS data, aerial imagery, and reports from consultants. Commission staff assessed information from

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other sources including comments from individuals, state and federal agency information, local officials, and scientific literature. Commission staff also coordinated review with DNR to assess wetland, waterway, and endangered resource impacts. Badger Hollow agreed to incorporate recommendations from the Commission and DNR into their project to mitigate environment impacts, and the Commission intends to impose additional conditions as described in this Final Decision. The Commission notes some public opposition to the proposed project. However, there was also significant public support for the project. Members of the public expressed support for some of the anticipated beneficial environmental impacts, such as improved soil quality and increased pollinator habitat.

Badger Hollow extensively studied potential impacts from the proposed project on public health and welfare and conducted numerous studies. Badger Hollow's noise study confirms that the proposed project will not have an adverse impact based on noise. The studies concluded that operational noise levels are anticipated to range from less than 20 bBA at more distance receptors to a high of 40 dBA at the closest non-participating receptor. No detectable noise is anticipated at night.

While certain intervening parties raised concerns about glint and glare, Badger Hollow's studies confirmed that visual impacts from the proposed project are expected to be minimal and insignificant. The final EA confirms these conclusions.

Badger Hollow submitted evidence regarding the significant environmental benefits to the public which include, among others, no air emissions. Local health organizations confirmed these public health benefits in comments, also noting the related economic benefits of lower health care costs. ([PSC REF#: 359028.](#)) In addition to air quality benefits, there are also positive impacts to area wildlife and water resources.

There are no additional impacts to public health or welfare associated with the solar facilities identified in the record that are not otherwise mitigated or addressed by the conditions of this Final Decision such as noise studies, stray voltage testing, and other conditions. On the other hand, approval of this project will provide up to 300 MW of noncombustible renewable energy to the state of Wisconsin. After weighing all of these factors and all of the conditions it is imposing, the Commission finds for the reasons set forth in this Final Decision and administrative record developed for this proceeding, that issuing a CPCN for this project promotes the public health and welfare and is in the public interest.

Conditions Related to Project Construction

Commission staff reviewed the proposed project and developed suggested order conditions related to proposed project construction. For the reasons discussed below, the Commission finds that many of these conditions are reasonable and in the public interest.

Decommissioning Plan

The Badger Hollow project is one of the first solar electric generation facilities of its size proposed in the state of Wisconsin. While Badger Hollow generally described decommissioning activities in its application, Commission staff suggested that Badger Hollow develop a decommissioning plan and submit this plan to Commission staff for review. Such a plan would provide further detail regarding the time, steps, and conditions to which the site would be restored. Given the size of the project and the uncertainties regarding eventual decommissioning, the Commission finds it reasonable to require Badger Hollow to submit a proposed decommissioning plan for the Commission's review and approval.

Electric Code Compliance

In general, the National Electrical Code (NEC) applies to non-supply facilities owned by non-utility entities, and the National Electrical Safety Code (NESC) applies to supply facilities owned by utilities. Commission staff requested clarification from Badger Hollow regarding whether and which NEC and NESC code requirements apply to the proposed project. Based on Badger Hollow's response, it is unclear which NEC or NESC code requirements apply to solar wholesale merchant plants and associated electrical transmission facilities. Since Wisconsin public utilities are pursuing the purchase of a portion of the proposed solar electric generation facility and the associated generation tie line in docket 5-BS-228, it is reasonable to clarify that the appropriate electrical codes be followed to protect the safety of the public, and the interests of both ratepayers and the utilities.

The Commission finds it reasonable to require Badger Hollow to construct, maintain, and operate all applicable project facilities to comply with the National Electrical Code or the National Electrical Safety Code and Wis. Admin. Code ch. PSC 114, as appropriate. In case of conflict or overlap between code requirements, Badger Hollow should construct, maintain, and operate all applicable project facilities to comply with the more stringent requirement. This will ensure public safety. Absent such a condition, as a wholesale merchant facility the applicable codes and enforcement necessary to ensure public safety would be unclear. Further, this condition will ensure that if Wisconsin public utilities do purchase the facilities such facilities will not require additional code upgrades that could be an unnecessary cost.

Stray Voltage Testing

Specific concerns about stray voltage were raised during the joint environmental scoping meeting for this docket and the associated docket 9697-CE-101. These concerns came in the form

of both oral comments and questions at the scoping meeting. Wisconsin Admin. Code § PSC 128.17 deals with stray voltage testing associated with wind energy systems, but the language of the code could also be employed to address stray voltage concerns the public raised about the proposed project. Previous Commission decisions have included language requiring stray voltage testing. Commission staff suggested that any order language requiring pre- and post-construction stray voltage testing be consistent with Wis. Admin Code § PSC 128.17.

Given the proposed project is one of the first of its kind in Wisconsin, to ensure public safety and to facilitate possible mitigation of any impacts from stray voltage on agricultural animals, the Commission finds it reasonable to require Badger Hollow to work with the applicable distribution utility to test for stray voltage at each agricultural confined animal operation within the project area, prior to construction and after the project is energized. The Commission notes stray voltage has the potential to cause adverse impacts on agricultural property. Badger Hollow shall work with the distribution utility and farm owner to rectify any identified stray voltage problem arising from the construction or operation of the project. Prior to testing, Badger Hollow shall work with the applicable distribution utility and Commission staff to determine where and how it will conduct the stray voltage measurements. Badger Hollow shall report the results of its testing to Commission staff.

Post-Construction Noise Study

There has been long-standing Commission precedent of requiring pre-construction and post-construction noise studies for any new proposed electric generation facility, for both renewable and conventional electric generation resources. Previous Commission decisions have included language that require noise studies by Badger Hollow. Badger Hollow has previously completed and submitted a pre-construction noise study report. However, until the project is

constructed and placed into operation, uncertainty remains as to the level of noise and associated impacts caused by the project.

The Commission finds it reasonable that Badger Hollow perform pre-construction and post-construction noise studies as described in the most current version of the Commission's Noise Measurement Protocol. This will ensure that any noise created by the solar facilities will be identified and mitigated in accordance with the Commission's standards. Badger Hollow should work with Commission staff to determine appropriate locations and conditions for the noise measurements. In the event of a substantial change to the proposed facility layout, Badger Hollow should confer with Commission staff to determine if a new pre-construction noise study must be completed. Badger Hollow shall file a copy of the post-construction noise study report with the Commission.

Other Proposed Conditions

The parties proposed a number of additional conditions as additional mitigation measures. In particular, the Kites proposed a condition requiring Badger Hollow to purchase their property at their appraised value and requiring Badger Hollow assist the Kites with relocation costs, expert fees, and legal expenses. As discussed above, the Commission is not persuaded by the Kites' appraisal. The appraisal did not adequately address or update the appraisal to account for the mitigation measures taken by Badger Hollow, including it moving the placement of solar panels further from the Kites' property. Additionally, in testimony Badger Hollow identified that the appraisal may overstate the value of the Kites' property. As such, the Commission finds the Kites' proposal to be contrary to past Commission practice and that it overstates the purported impacts of the project on the Kites' property. In sum, the Commission finds these proposed additional mitigation measures are for the most part repetitive and are unsupported by the record. As

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discussed in this Final Decision, a noise study was conducted and the EA identified no undue negative impacts. Additionally, the Commission is requiring post construction noise testing. Finally, Badger Hollow presented testimony that the noise impacts from the project will be minimal. In sum, based on the information in the record, no noise restrictions are necessary for the project. For further example, there is no record evidence showing that current setbacks from the facilities are unreasonable. For these reasons, the Commission determines not to impose the additional conditions suggested by parties on Badger Hollow.

Environmental Review

The proposed electric generation project was reviewed by the Commission for environmental impacts. Wisconsin Admin. Code ch. PSC 4, Table 3, identifies construction of a solar-powered electric generation facility as a Type III action. However, Wis. Admin. Code § 4.10 specifically provides that while Type III actions do not normally require preparation of an EA or an EIS, “[a]n evaluation of a specific Type III proposal, however, may indicate that preparation of an EA or EIS is warranted for that proposal”

An EA was warranted for the proposed project due to novelty of the proposed project in this state, as well as the size and amount of land that would be covered by the proposed project. The environmental review focused primarily on impacts to wildlife, including rare or endangered species, aesthetics, historic resources, wetlands and waterways, and local landowner impacts. The EA concluded that “Commission staff has not identified any potential environmental effects of the proposed project that could be considered significant.” ([PSC REF#: 357519](#) at 68.)

Archeological and Historic Resource Review

A search of the Wisconsin Historical Society’s Wisconsin Historic Preservation database revealed no previously documented archaeological resources that would be impacted by project

development. Four historic structures were identified within or adjacent to the project boundary, but there would be no impact to these structures. No known cemeteries or burial sites are located within the project boundaries. The Commission finds that construction of the proposed facilities is not expected to affect any historic properties under Wis. Stat. § 44.40.

Local Landowner Impacts

Non-participating landowners voiced concerns regarding the potential impacts of the facility being constructed in their area. The potential for changes in property values, increased noise, glare from the panels, and the change of land use from a rural farmed landscape to many acres of panels and fencing were discussed in comments provided by landowners. One landowner requested that his property be bought by the developer to avoid these impacts. For the reasons previously discussed, the Commission finds that such concerns are not substantiated by the record and, to the extent there are impacts can be mitigated through the conditions imposed by this Final Decision.

Landowners near other electric generation facilities, such as wind turbines, have complained of radio and television interference problems. Transmission line dockets typically review the risk of impacts to line-of-sight and broadcast communications from new facilities. As the proposed project has a much lower profile, these types of impacts are not expected. However, if they occur, the Commission finds it reasonable to require Badger Hollow to mitigate impacts to line-of-sight communications and landowners that can show disruption to broadcast communications post construction. As for the other concerns raised by non-participating landowners, the Commission finds those concerns have been addressed to the extent practicable through the other conditions imposed on Badger Hollow in this Final Decision.

Complaint Process

Badger Hollow did not provide a detailed complaint resolution process in their application. Badger Hollow does not object to a complaint process that begins with the complainant notifying the owner of the facility, but allows for the complainant to bring the issue before the Commission if not resolved. Commission staff recommended Badger Hollow develop a complaint process as the project is one of the first large solar electric generation facilities in the state with thousands of impacted acres, and a complaint process may be in the public interest to address potentially unforeseen complaints. Commission staff did not identify the specific process Badger Hollow would follow under such a condition.

The Commission finds a complaint process is not necessary, in that many of the concerns associated with the proposed project can be mitigated through the conditions imposed under this Final Decision and through existing procedures available to the public to bring complaints before the Commission. The Commission has a robust set of processes by which the public can bring complaints regarding utility practices before the Commission. See Wis. Admin. Code § PSC 113.0407; *see also* Wis. Stat. § 196.26. The proposed solar facilities are not currently owned by utilities, but future ownership by utilities appears likely, which would make these complaint procedures available to the public. Further, the Commission has a formal and informal process for bringing complaints before the Commission under Wis. Admin. Code. §§ PSC 2.07 and 2.08. These latter procedures can be used by the public to address any failure by the developer to abide by the requirements of the CPCN or otherwise act in a way contrary to the public interest.

The Commission finds that adding yet another procedure to bring complaints before the Commission is unnecessary in light of the likely future ownership by Wisconsin utilities.

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Although the Commission is not requiring Badger Hollow to develop a specific complaint resolution process, the Commission stresses the importance of communication between Badger Hollow and community in and around the project area.

Cultural and Socio-economic Impacts

The proposed project was reviewed for the possible occurrence of archaeological resources. The review has identified no archaeological, cemetery, or burial sites within the project area. In addition, the proposed project will not have adverse effect on architectural/historic properties in the area.

Aesthetics and Fencing

Badger Hollow would be one of the first two utility-scale solar generation facilities in Wisconsin, and the addition of hundreds of acres of solar panels, grouped in arrays that are fenced off for security requirements, would be a change from the current agricultural landscape. Badger Hollow initially proposed using a six-foot chain link fence topped with up to a foot of barbed wire for their array fencing. A similar sized project in Minnesota used eight-foot deer fencing (otherwise known as agricultural fencing) with no barbed wire. The use of this type of fencing would mitigate the change to the aesthetics of the area, is less hazardous to wildlife by removing barbed wire, and meets the necessary requirements of electric codes under both NEC and NESC for the array sites. A chain link fence with barbed wire would still be necessary around the collector substation to meet applicable code requirements. Therefore, the Commission finds it reasonable to require Badger Hollow to use agricultural fencing in those areas where a chain link fence with barbed wire is not required by applicable electrical codes because it will mitigate the change to the aesthetics and be less hazardous to wildlife.

Threatened and Endangered Species Review

A certified Endangered Resources (ER) Review was conducted for this project, which included a review of the DNR's Natural Heritage Inventory (NHI) database for endangered and threatened species, and species of special concern. The NHI database is updated regularly and as construction of the proposed project would not start until after a year from the date of the ER Review, the Commission finds it reasonable to require Badger Hollow to conduct an updated review closer to the construction start date, and no more than one year prior to commencement of construction.

The ER Review determined there is one rare reptile which may be present in areas of suitable habitat. DNR made recommendations to avoid impacts to this species. Badger Hollow does not expect to impact the area identified as suitable rare reptile habitat; and if it does, it would assess the suitability of the habitat within the area. If suitable habitat is identified, Badger Hollow would conduct presence surveys, and if presence is determined, Badger Hollow would coordinate with DNR to avoid impact to this species

The construction of the proposed facilities as described in the application and subsequent data requests is not expected to affect any endangered or threatened species under Wis. Stat. § 29.604(6r).

Vegetation Management

Solar facilities in the upper Midwest typically have vegetation growing on the array sites around the site perimeter, as well as between and underneath panels. This vegetation decreases the amount of impervious surface associated with the site and assists in managing storm water runoff and erosion. The vegetation needs to be established and managed in a way that avoids conflicts

with the operation of the solar generation facility. Native plant species can create a healthy and sustainable groundcover on the site.

Badger Hollow provided a vegetation management plan that describes the seed mixes, establishment phase, and ongoing plans for managing vegetation on the solar array sites. There would be benefits to wildlife if mowing is delayed in early summer until ground-nesting birds have finished nesting. Commission and DNR staff could continue to discuss the ongoing vegetation management of the array sites to evaluate ways of mitigating impacts and creating benefits to wildlife, including pollinator insects. The Commission finds it reasonable to require Badger Hollow to continue to work with the Commission and DNR staff on its vegetation management plan that minimizes impacts to ground nesting birds and creates an environmentally sustainable ground cover on the solar array.

Other Wildlife Impacts

Large-scale solar facilities are a relatively new addition to the landscape, and research is ongoing to determine impacts to wildlife. Most research on the impacts of solar facilities on wildlife has occurred in different habitats than are found in Wisconsin. At some of these facilities, there have been observations of bird fatalities with impact trauma that indicates the birds may have collided with the solar panels.

Commission staff recommended an order condition that requires Badger Hollow to develop and conduct a post-construction avian mortality study. Badger Hollow proposed to instead implement a Wildlife Response and Reporting System for detecting and reporting wildlife incidents as they are discovered. Commission staff testified that the incidental observations of any avian mortality through Badger Hollow's proposed wildlife reporting system

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would not provide the same scientific rigor or usefulness that an avian mortality study done to a particular methodology would provide.

As the proposed solar facility is one of the first of this scale in Wisconsin, understanding any impacts this project may have on avian mortality could lead to more informed siting and operation if any mortality events are observed. Given the uncertainty regarding avian mortality associated with solar facilities, and the potential risk to migratory birds, the Commission finds it reasonable to require Badger Hollow to work with the Commission and DNR to develop and conduct a post-construction avian mortality study.

Wetlands and Waterways

DNR participated in the review process with the Commission as required under Wis. Stat. § 30.025. As part of its review, DNR determines if the proposed project is in compliance with applicable state water quality standards (Wis. Admin. Code chs. NR 102, 103, and 299). If the project is found to be in compliance with state standards, DNR issues a waterway permit to Badger Hollow, as promulgated under Wis. Stat. ch. 30, and/or a wetland permit, as promulgated under Wis. Stat. § 281.36.

Temporary wetland fill within the total project area is proposed for the placement of construction matting. Permanent wetland fill may occur if the driveway for the O&M building needs to be replaced. Wetland fill may also occur for footings and grading associated with the perimeter fencing. It is anticipated that this project, as currently proposed, would qualify for permit coverage under Wis. Stat. § 30.025.

Compensatory wetland mitigation is not required for this project, per Wis. Stat. § 281.36(3n)(d)2.

Flood Hazard Review

The proposed project was reviewed for potential flood hazard exposure per Order 73. As no flood-sensitive facilities are to be located in or near any designated floodplain or flood prone areas, there is no significant flood risk to the proposed project.

Federal, State, and Local Permits

Under Wis. Stat. § 196.491(3)(e), before issuing a CPCN, the Commission must determine that the DNR can grant the permits that have been identified under Wis. Stat. § 196.49(3)(a)3.a. as required for the construction or operation of the facility. The Commission has no jurisdiction over the DNR permits, but it remains aware of the status of the DNR permits that are required before any construction may begin and those that are of significant importance to the ability of the plant to operate if it receives a CPCN. As described in the EA, DNR participated in the environmental review of this project, and it is anticipated that this project, as currently proposed, would meet permit requirements.

A list of all anticipated permits is included in the application and the EA. The Commission frequently requires in final decisions authorizing construction projects that Badger Hollow obtain all necessary federal, state, and local permits prior to commencement of construction. Commission staff suggested a similar condition in this docket, and the Commission finds it reasonable to include such a condition in any final decision authorizing the proposed project.

Badger Hollow stated that it will obtain all necessary federal, state, and local permits prior to commencing construction of the proposed project.

Minor Siting Flexibility

The Commission recognizes that detailed engineering is not complete prior to it authorizing the project, and that minor siting flexibility may be needed to accommodate the final design of the project. Situations may be discovered in the field that were not apparent based on the information available to Badger Hollow in development of the proposed project or to the Commission in making its decision. When Badger Hollow identifies such situations, it shall consult with Commission staff familiar with the proposed project to determine whether the change rises to the level where Commission review and approval is appropriate. If Commission review is appropriate, Badger Hollow shall request Commission authorization. A request for minor siting flexibility shall take the form of a letter to the Commission describing:

1. The nature of the requested change;
2. The reason for the requested change;
3. The incremental difference in any environmental impacts;
4. Communications with potentially affected landowners regarding the change;
5. Documentation of discussions with other agencies regarding the change; and
6. A map showing the approved route and the proposed modification, property boundaries, relevant natural features such as woodlands, wetlands, waterways, and other sensitive areas.

These requests will be reviewed by Commission staff knowledgeable about the proposed project. Approval of the requests is delegated to the Administrator of the Division of Energy Regulation.

The requested change may be granted if the proposed change:

1. Does not affect new landowners who have not been given proper notice and hearing opportunity;

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2. Does not impact new resources or cause additional impacts that were not described in the EA; and,
3. Is agreed to by affected landowners, and agreement is affirmed in writing.

Changes that do not meet all three of the criteria listed above would require reopening of the docket.

For any minor siting change, the Commission typically also requires that the applicant:

- Obtain of all necessary permits;
- Comply with all requirements included in agreements with local units of government, such as JDAs;
- Comply with all landowner agreements;
- Avoid of any part of the project area that the Commission finds unacceptable; and,
- Comply with the applicant's own environmental siting criteria.

The Commission finds that it is reasonable that Badger Hollow be granted minor siting flexibility. The Commission spends considerable time reviewing and selecting areas for a generation project layout, and it is therefore of utmost importance that if the chosen project layout must be changed, the Commission must receive appropriate notification. Badger Hollow shall follow the described process to obtain authorization for any minor siting changes.

Compliance with the Wisconsin Environmental Protection Act (WEPA)

Under Wis. Stat. § 196.491(3)(d)3, the Commission must find that the proposed project is in the public interest considering environmental factors. Similarly, under Wis. Stat. § 196.491(3)(d)4, before issuing a CPCN, the Commission must find that the project will not have an undue adverse impact on environmental values.

Without substantive support, the Jewell Jinkins Intervenors assert that an EIS was required. As previously discussed, an EIS was not required by the applicable regulations or based upon the

findings of the EA. The Commission finds that no EIS is required and that the environmental review conducted in this proceeding complies with the requirements of Wis. Stat. § 1.11 and Wis. Admin. Code ch. PSC 4.

Project Construction Schedule

Badger Hollow provided a representative construction schedule as part of its application, which is summarized as follows:

Activity	Estimated Start
Phase 1 – 150 MW	
Commence Construction	July 2019
Commercial Operation	December 2020
Phase 2 – 150 MW	
Commence Construction	July 2022
Commercial Operation	December 2023

Assignment of Rights

In its application, Badger Hollow stated its intent to assign operation and ownership of a portion of the proposed project and Commission authorization to construct the proposed solar facility to two Wisconsin public utilities. Pursuant to Wisconsin’s CPCN law, Badger Hollow’s application was reviewed in accordance with those criteria applicable to Commission authorization for the construction of wholesale merchant plant rather than public utility plant. Wis. Stat. § 196.491(3)(d). Because the criteria applicable to review of CPCN applications by public utilities differs from that applicable to wholesale merchant plants, the rights granted under a CPCN issued to a wholesale merchant plant are also distinct from those granted to a public utility. Accordingly, the Commission finds it reasonable in light of the potential assignment of ownership and rights by Badger Hollow to two Wisconsin public utilities to include an order condition limiting the rights granted under the CPCN to those provided to Badger Hollow as a

wholesale merchant, and requiring any future owner or operator of the project to honor the commitments made by Badger Hollow.

Certificate

The Commission grants Badger Hollow a CPCN for construction of the proposed solar PV electric generating facility, as described in the application and as modified by this Final Decision.

Order

1. Badger Hollow is authorized to construct the proposed solar PV electric generating facility, as described in the application and as modified by this Final Decision.
2. Badger Hollow shall notify and obtain approval from the Commission before proceeding with any substantial change in the scope, design, size, and location of the approved project.
3. If Badger Hollow cancels the project or enters into any arrangement with another party regarding ownership or operation of the proposed facilities, Badger Hollow shall provide prior notice to the Commission.
4. Badger Hollow shall obtain all necessary federal, state, and local permits prior to commencement of construction.
5. Badger Hollow shall consult with the DNR Bureau of Natural Heritage Conservation and follow its direction regarding the development of additional surveys and mitigation strategies to minimize the potential effects on endangered and threatened species to ensure compliance with the state endangered species law, as discussed in this Final Decision.
6. Beginning with the quarter ending June 30, 2019, and within 30 days of the end of each quarter thereafter and continuing until the authorized facilities are fully operational, Badger

Hollow shall submit quarterly progress reports to the Commission that include all of the following:

- a. The date that construction commences.
- b. Major construction and environmental milestones, including permits obtained, by agency, subject, and date.
- c. Summaries of the status of construction, the anticipated in service date, and the overall percent of physical completion.
- d. The date that the facilities are placed in service.

7. Badger Hollow may propose minor adjustments in the approved project layout for the protection of social, cultural, or environmental resources, but any changes from the approved layout may not affect resources or cause impacts not discussed in the EA, nor may they affect new landowners who have not been given proper notice and hearing opportunity. Badger Hollow shall consult with Commission staff regarding whether the change rises to the level where Commission review and approval is appropriate. For each proposed adjustment for which Commission review is appropriate, Badger Hollow shall submit for Commission staff review and approval a letter describing: the nature of the requested change; the reason for the requested change; the incremental difference in any environmental impacts; communications with potentially affected landowners regarding the change; documentation of discussions with other agencies regarding the change; and, a map showing the approved route and the proposed modification, property boundaries, relevant natural features such as woodlands, wetlands, waterways, and other sensitive areas.

8. Within three months of the date when the authorized generating unit is operational at full capacity, Badger Hollow shall repeat the noise measurements that were taken before

project approval, shall measure the maximum noise generated at the site with all units on, and shall measure the noise at the site with all units off. Badger Hollow shall report its findings to the Commission using the same format as its pre-approval noise studies.

9. Badger Hollow shall work with Commission and DNR staff on developing and conducting a post-construction avian mortality study.

10. Badger Hollow shall continue to work with the Commission and DNR staff on its vegetation management plan that minimizes impacts to ground nesting birds and creates an environmentally sustainable ground cover on the solar array.

11. Badger Hollow shall use 8 foot deer fencing or equivalent fencing that does not include the use of barbed wire or chain link around the solar array sites (excluding the collector substation).

12. Badger Hollow shall conduct an updated Endangered Resources Review closer to the start date of construction (no more than one year prior to construction start).

13. Badger Hollow shall mitigate impacts to line-of-sight communications and landowners that can show disruption to broadcast communications post construction.

14. Badger Hollow shall develop a decommissioning plan and submit this plan to Commission staff for review and approval.

15. Badger Hollow shall a conduct pre-construction and post-construction stray voltage testing consistent with Wis. Admin Code § PSC 128.17.

16. Badger Hollow shall comply with the NEC or the NESC and Wis. Admin. Code § PSC 114, as appropriate. In case of conflict or overlap between code requirements, Badger Hollow shall comply with the more stringent code requirement.

17. The CPCN is valid only if construction commences no later than one year after the latest of the following dates:

- a. The date this Final Decision is served.
- b. The date when Badger Hollow has received every federal and state permit, approval, and license that is required prior to commencement of construction by construction spread under the CPCN.
- c. The date when the deadlines expire for requesting administrative review or reconsideration of the CPCN and of the permits, approvals, and licenses described in par. (b.)
- d. The date when Badger Hollow receives the Final Decision, after exhaustion of judicial review, in every proceeding for judicial review concerning the CPCN and the permits, approvals, and licenses described in par. (b.)

18. If Badger Hollow does not begin on-site physical construction of the authorized project within one year of the effective date of this Final Decision, the Certificate authorizing the approved project for which construction has not commenced shall become void unless Badger Hollow:

- a. files a written request for an extension of time with the Commission before the effective date on which the Certificate becomes void, and
- b. is granted an extension by the Commission.

19. If Badger Hollow has not begun on-site physical construction of the authorized project and has not filed a written request for an extension before the date that this Certificate becomes void, Badger Hollow shall inform the Commission of those facts within 20 days after the date on which the Certificate becomes void.

20. All commitments made by Badger Hollow in its application, subsequent filings, and the provisions of this Final Decision shall apply to Badger Hollow, any agents, contractors, successors, assigns, corporate affiliates and any future owners or operators of the project.

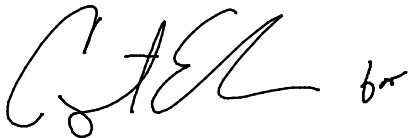
21. The transfer of rights and obligations under this CPCN to a third-party does not confer either additional rights or obligations upon that third-party than what is afforded to Badger Hollow at the time of application and as specified in this Final Decision. If a successor, assign, or future owner or operator of the project is a public utility, this CPCN is conditional upon the public utility waiving any rights it may otherwise have under Wis. Stat. §§ 32.02 and 32.075(2) for the project. This CPCN does not confer any “right to acquire real estate or personal property appurtenant thereto or interest therein for such project by condemnation” under §§ 32.02 or 32.075(2) as otherwise provided under Wis. Stat. § 32.03(5)(a).

22. This Final Decision takes effect one day after the date of service.

23. Jurisdiction is retained.

Dated at Madison, Wisconsin, this 18th day of April, 2019.

By the Commission:

A handwritten signature in black ink, appearing to read 'SPC', followed by a small mark that looks like 'br'.

Steffany Powell Coker
Secretary to the Commission

SPC;jlt:pc DL: 01674616

See attached Notice of Rights

PUBLIC SERVICE COMMISSION OF WISCONSIN
4822 Madison Yards Way
P.O. Box 7854
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**NOTICE OF RIGHTS FOR REHEARING OR JUDICIAL REVIEW, THE
TIMES ALLOWED FOR EACH, AND THE IDENTIFICATION OF THE
PARTY TO BE NAMED AS RESPONDENT**

The following notice is served on you as part of the Commission's written decision. 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.

PETITION FOR REHEARING

If this decision is an order following a contested case proceeding as defined in Wis. Stat. § 227.01(3), a person aggrieved by the decision has a right to petition the Commission for rehearing within 20 days of the date of service of this decision, as provided in Wis. Stat. § 227.49. The date of service is shown on the first page. If there is no date on the first page, the date of service is shown immediately above the signature line. The petition for rehearing must be filed with the Public Service Commission of Wisconsin and served on the parties. An appeal of this decision may also be taken directly to circuit court through the filing of a petition for judicial review. It is not necessary to first petition for rehearing.

PETITION FOR JUDICIAL REVIEW

A person aggrieved by this decision has a right to petition for judicial review as provided in Wis. Stat. § 227.53. In a contested case, the petition must be filed in circuit court and served upon the Public Service Commission of Wisconsin within 30 days of the date of service of this decision if there has been no petition for rehearing. If a timely petition for rehearing has been filed, the petition for judicial review must be filed within 30 days of the date of service of the order finally disposing of the petition for rehearing, or within 30 days after the final disposition of the petition for rehearing by operation of law pursuant to Wis. Stat. § 227.49(5), whichever is sooner. If an *untimely* petition for rehearing is filed, the 30-day period to petition for judicial review commences the date the Commission serves its original decision.¹⁵ The Public Service Commission of Wisconsin must be named as respondent in the petition for judicial review.

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

Revised: March 27, 2013

¹⁵ See *Currier v. Wisconsin Dep't of Revenue*, 2006 WI App 12, 288 Wis. 2d 693, 709 N.W.2d 520.

APPENDIX A

CONTACT LIST FOR SERVICE BY PARTIES

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