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Public Service Commission of Wisconsin
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PUBLIC SERVICE COMMISSION OF WISCONSIN

Application for a Certificate of Public Convenience and Necessity of
Two Creeks Solar, LLC to Construct a Solar Electric Generation Facility,
to be Located in Manitowoc and Kewaunee Counties, Wisconsin

9696-CE-100

FINAL DECISION

On May 31, 2018, pursuant to Wis. Stat. § 196.491 and Wis. Admin. Code chs. PSC 4 and 111, Two Creeks Solar, LLC (Two Creeks) filed with the Commission an application for a Certificate of Public Convenience and Necessity (CPCN) to construct a new solar photovoltaic (PV) electric generation facility.¹ Two Creeks' 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 213 megawatts (MW) direct current (DC) and up to 150 MW alternating current (AC). The proposed project would be located on approximately 1,020 acres of primarily agricultural land in Manitowoc 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 Two Creeks' application was complete on September 13, 2018. ([PSC REF#: 349957.](#)) A Notice of Proceeding was issued on October 4, 2018. ([PSC](#)

¹ In addition to the solar generation facility, Two Creeks 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 Kewaunee Switchyard. The Commission is reviewing the tie line in docket 9696-CE-101.

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[REF#: 351184.](#)) 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#: 355904.](#)) The Commission must take final action on or before September 9, 2019,² 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#: 351877.](#)) Requests to intervene were granted to American Transmission Company LLC (ATC), Citizens Utility Board of Wisconsin (CUB), RENEW Wisconsin (RENEW), and Wisconsin Industrial Energy Group (WIEG). ([PSC REF#: 351929.](#)) 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 covered by the proposed project and the ability to use the EA process to seek public comments on the proposal.³

² The 180-day extended deadline falls on Sunday, September 8, 2019. Pursuant to Wis. Admin. Code § PSC 2.05(2), the next day the Commission is open is considered the last day of the 180-day extension for the Commission to take final action.

³ As part of the Commission's review of the proposed project, it performed a consolidated EA for both the generation (9696-CE-100) and the tie line (9696-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.

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. ([PSC REF# 355103](#).) 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# 357516](#).) 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 November 30, 2018. ([PSC REF#: 354251](#).) The Commission held technical hearing sessions in Madison on January 15, 2019. At the technical sessions, expert witnesses offered testimony and exhibits on behalf of Two Creeks, RENEW, and Commission staff.⁴ Public comment hearing sessions were held in the project area on January 22, 2019, at Lester Public Library, Two Rivers, 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 website.⁶ 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?

⁴ [PSC REF#: 359861](#)

⁵ Ex.-PSC-Public Comments ([PSC REF#: 358365](#), [PSC REF#: 358358](#))

⁶ [PSC REF#: 358365](#)

Two Creeks filed its initial brief on January 25, 2019. ([PSC REF# 358367.](#)) No other briefs were filed.

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

Findings of Fact

1. Two Creeks is a wholly-owned indirect subsidiary of NextEra Energy Resources, LLC (NEER). Two Creeks 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 213 MW DC and 150 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 under the priorities listed. 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 Two Creeks' 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 Two Creeks 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 Two Creeks 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 Two Creeks 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 Two Creeks 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 Two Creeks 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

Two Creeks 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 213 MW DC and up to 150 MW AC. The proposed project would be located in the towns of Two Creeks and Two Rivers, in Manitowoc County, Wisconsin. The major components of the proposed project include the PV panels, PCUs, collection lines, a collector substation, and an O&M building.

The proposed project would use approximately 533,000 Jinko Eagle HC mono-crystalline PV panels totaling a direct current (DC) output of up to 213 MW. These panels measure approximately 2.0 meters by 1.0 meters and generate approximately 400 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 150 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 32 miles, and would consist of 6 feeders. The solar PV array would connect to a new 34.5 kV/138 kV project collector substation.

If approved, two Wisconsin public utilities propose to purchase the Two Creeks 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

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to acquire the Two Creeks project prior to the completion of construction with the assumption the Commission approves the projects and other conditions precedent to closing are satisfied. As of the date of this Final Decision, however, there has been no sale. Therefore, it remains appropriate to evaluate the proposed project as a wholesale merchant plant. This is consistent with previous Commission decisions authorizing the transfer of a merchant CPCN to a public utility prior to completion of construction of the project.⁷ Further, nothing in Wis. Stat. § 196.491 prohibits the transfer of rights granted under a CPCN.

The proposed 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 additions 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).

⁷ 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.

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-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 Operator, Inc. (MISO) Generator Interconnection Queue study process. Two Creeks filed an Interconnection Request with MISO in June 2017 and is in the MISO August 2017 DPP Study Cycle, with the assigned queue position of J886. At the time of this Final Decision, the review of queue position J886 is 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 are forthcoming.

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. However, Two Creeks in this case has asserted that because this is a merchant plant and the Commission may not consider alternative sources of supply or engineering or economic factors, the Energy Priorities Law does not apply. The Commission disagrees and concludes that the law does apply to this merchant plants such as the one proposed.

The Commission has an obligation to consider these priorities in all energy related decisions including construction of new electric generation facilities.⁸ In the Commission’s Final Decision in the Glacier Hills docket cited by Two Creeks,⁹ the Commission concluded that it “must implement state 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

⁸ 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.

⁹ *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.](#))

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 Wis. Stat. § 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. It is uncontested that energy and capacity from the proposed project cannot be replaced by energy conservation and efficiency, the highest priority alternative. The EA for the proposed project concluded that "approval and construction of this project is unlikely to have a significant impact on the human environment. . . ." ([PSC REF#: 357516](#) at 60.) Additionally, the objective of the law¹⁰ 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

¹⁰ See also Wis. Stat. §§ 1.12(3)(b) and 196.377.

cost-effective. This project aligns with that objective. Therefore, the proposed project satisfies the requirements of the Energy Priorities Law.

Siting

The Commission must consider alternative locations when determining whether a proposed generation facility 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 Two Creeks 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 Two Creeks confirmed the suitability of these locations. The record reflects examination of each of the solar siting areas. In addition, Two Creeks 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 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.

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In a previous docket concerning a wind farm,¹¹ 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.¹²

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

Two Creeks provided descriptions of the variables used to arrive at the selection of the project preferred and alternative 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.

The proximity to the existing transmission grid, relatively level and open fields, physical proximity to another proposed solar PV generation site also being developed and constructed by NEER (Point Beach Solar), all influenced the selection of the project area.

¹¹ *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).

¹² *Horicon Marsh Systems Advocates and Joe M. Breden 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).

As part of its application, Two Creeks 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 Two Creeks' preferred 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.

The ability to construct larger, more efficient arrays led to the proposed array sites. The alternative array sites meet most siting requirements, but would be less efficient due to their smaller size.

Authorized Project Site

The Commission authorizes all of the primary and alternate 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. The primary site is preferred by the developer because of its more compact layout and less underground collection lines than the alternate site. The primary site provides a more cost-effective layout and is likely to be more energy efficient. However, the alternate site provides additional flexibility for placement of the solar facilities during construction with similar, limited environmental impacts. The Commission finds it reasonable to allow the developer flexibility to use the proposed sites as

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needed to accommodate environmental, technical, and landowner issues as they arise during construction of the project.

The relevant inquiry is whether the proposed project site will cause undue individual hardships or undue adverse impact on other environmental values. 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. Many other comments the Commission received from landowners are addressed by the conditions the Commission intends to adopt. As the remainder of this Final Decision demonstrates, the Commission conducted a robust analysis of the potential impacts both to the surrounding landowners and community and to the environment. Two Creeks committed to a number of requirements to address landowner impacts such as implementing a complaint process, conducting noise studies, and minimizing communication and broadcast disruptions. Further, the conditions recommended by Commission staff which the Commission intends to adopt will mitigate or address the majority of environmental concerns identified including conducting an avian mortality study, requiring the use of deer fencing, conducting stray voltage testing, and other requirements addressed below. The Commission finds the design and location is in the public interest considering alternatives and its assessment of individual hardship and environmental impacts. To the extent there are some impacts, these impacts can be mitigated through the conditions to be imposed by the Commission and further discussed below.

Brownfield Sites

Wisconsin Stat. § 196.491(3)(d)8. provides that a CPCN generation project must be sited in a brownfield area “to the extent practicable.” The proposed project requires over 1,000 acres of

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nearly contiguous developable land in close proximity to existing transmission facilities. There were no brownfield sites identified in Wisconsin that met the siting requirements. The Commission therefore 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. 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.¹³ As such, the Commission finds that the proposed project meets the requirements of Wis. Stat. § 196.491(3)(d)7.

Land Use and Development Plans

Wisconsin Stat. § 196.491(3)(d)6 requires that a proposed generation facility not “unreasonably interfere with the orderly land use and development plans for the area involved.” A utility infrastructure project will have some impact on land use and development plans for the area involved. The question is whether the project will “unreasonably interfere” and must also take into

¹³ *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 No. 6630-CE-302 (January 22, 2012).* ([PSC REF#: 126124 at 20.](#))

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account the benefits of the proposed project. Manitowoc County does not have specific zoning requirements or limitations for solar generating facilities. The land where the proposed project would be constructed is classified as Farmland Preservation 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. The Commission takes seriously that areas within the fenced solar arrays would be taken out of agricultural production for the life of the project.

Two Creeks is not a public utility and does not possess statutory eminent domain authority. Two Creeks must secure long-term lease agreements with landowners in the project area to acquire the property for the generation facility. The changes to land use are agreed to by the landowners that have signed leases with Two Creeks and after decommissioning, the land may return to agricultural land use. Further, as noted by Two Creeks and according to the most recent Farmland Information Center survey, there are approximately 14,568,926 acres of agricultural land in Wisconsin. The Commission recognizes that the proposed project will create impacts on the land use in the project area but finds that the proposed project will not unreasonably interfere with the orderly land use and development plans of the project area and will have an extremely minimal impact on agricultural land in the state as a whole.

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. In order to determine whether construction of a new electric generating facility is

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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 Two Creeks' CPCN application, responses to Commission staff data requests, maps, GIS data, aerial imagery, and reports from consultants. Commission staff assessed information from other sources including comments from individuals, state and federal agency information, local officials, field visits, and scientific literature. Commission staff also coordinated review with DNR to assess wetland, waterway, and endangered resource impacts. Two Creeks agreed to incorporate recommendations from the Commission and DNR into their project to mitigate environment impacts, and the Commission imposed additional conditions as described in this decision. The Commission also notes minimal public opposition to the proposed project as compared to other facilities.

Further, while there is a large amount of agricultural land that is being utilized for construction of the solar facilities, soil disturbances are likely to be minimal. It is expected that if these facilities are decommissioned in the projected 30-50 year life span of the project, such

land could be returned to agricultural use. Because of the passive nature of solar, operations activities at the site will be minimal. The facilities can be operated with, in addition to remote monitoring, three full-time equivalent employees on-site. The proposed project will not require any municipal water or sewer services and will not require any unique fire, police, or rescue services. 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 the proposed project will provide 150 MW of noncombustible renewable energy to the state of Wisconsin. The Commission has previously held that renewable generation projects promote public health and welfare by generally avoiding most of the impacts created by other types of electric generation.¹⁴

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 the proposed project promotes the public health and welfare and is in the public interest.¹⁵

Conditions Related to Project Construction

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

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](#))

¹⁵ The Commission takes official notice of the evidence received in docket 9696-CE-101 pursuant to Wis. Stat. § 227.45(2).

Decommissioning Plan

The Two Creeks project is one of the first solar electric generation facilities of its size proposed in the state of Wisconsin. Two Creeks stated that at the end of the project's useful life, the project will cease operation and the facilities will be decommissioned and the site restored to pre-construction condition. Commission staff suggested that Two Creeks 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. Two Creeks had already committed to developing a decommissioning plan. The Commission finds it reasonable to require Two Creeks 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 Two Creeks regarding whether and which NEC and NESC code requirements apply to the proposed project. Based on Two Creeks' 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 the proposed solar electric generation facility and the associated generator 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 Two Creeks to construct, maintain, and operate all applicable project facilities to comply with the NEC or the NESC and Wis. Admin. Code ch. PSC 114, as appropriate. In case of conflict or overlap between code requirements, Two Creeks shall construct, maintain, and operate all applicable project facilities to comply with the more stringent code 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 9696-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 Final Decision 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 Two Creeks 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. Two Creeks 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, Two Creeks shall work with the applicable distribution utility and Commission staff to determine where and how it will conduct the stray voltage measurements. Two Creeks 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 Two Creeks. Two Creeks completed and submitted an initial pre-construction noise study report. That noise study did not include sound level estimates for proposed generators required by the Commission's Noise Measurement Protocol, Section II.C. Two Creeks subsequently provided a revised noise study which did include the required sound level estimates.

The Commission finds it reasonable that Two Creeks 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. Two Creeks 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, Two Creeks should confer with Commission staff to determine if a new pre-construction noise study must be completed. Two Creeks shall file a copy of the post-construction noise study report with the Commission.

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 “approval and construction of this project is unlikely to have a significant impact on the human environment” ([PSC REF#: 357516](#) at 60.)

Archeological and Historic Resource Review

A search of the Wisconsin Historical Society’s Wisconsin Historic Preservation database (WHPD) revealed 21 historic resources within a half-mile of the proposed solar generation facilities. No known cemeteries or burial sites are located in the project area boundaries. Nine archaeological sites recorded on the WHPD were within the overall project boundary. Six of

these sites were field investigated by a consultant for Two Creeks, while three sites fell outside the area of impact. The sites surveyed did not locate historic resources and therefore the proposed project is not expected to impact known archaeological sites. Based upon this survey and subsequent investigation, 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

Some 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.

While some landowners expressed concerns that construction of the proposed project would reduce their property values, these concerns were not substantiated with credible evidence. As discussed in the EA, noise and visual impacts could negatively impact property value. However, unlike fossil-fueled electric generation facilities, the proposed facilities would have no emissions and minimal anticipated noise impacts to adjacent land uses during operations. The proposed facilities would also likely have minimal visual impact given the limited height of the solar panels. The EA also indicated that a review of the literature found no research specifically aimed at quantifying impacts to property values based solely on the proximity to utility-scale solar facilities. For these reasons, the EA concluded that “[w]idespread negative impacts to property values are not anticipated.” ([PSC REF#: 357516](#) at 50.)

As noted previously, Two Creeks conducted pre-construction ambient noise studies. The studies were conducted in accordance with the Commission’s Noise Protocols. The studies

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recorded noise levels that would be typical for a rural environment with sources include vehicular traffic and farm machinery during daytime periods and insect noise during nighttime periods. As a result, the studies concluded that construction and operation of the proposed project would not result in any significant adverse noise impacts. The EA reviewed and confirmed these findings, noting that “[o]perational noise levels range from less than 30 dBA at more distance receptors, to a high of 38 dBA or more at the closet non-participating receptor. All of the levels are significantly less than the Commission 45 dBA standard for wind turbines.” ([PSC REF#: 357516](#) at 45.)

Two Creeks also performed a Glint and Glare Analysis for the proposed project. The results showed no predicated glare from the solar arrays for aircraft making approaches at the Manitowoc County Airport, and none for cars with an estimated viewing height of four feet, large trucks with an estimated viewing height of eight feet, or residents with an estimated second story viewing height of twelve feet. The EA also noted that the solar panels are designed to absorb light and have an anti-reflective coating that reduces the risk of glint or glare to vehicles or residents. (*Id.* at 46.)

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 Two Creeks 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 Two Creeks in this Final Decision.

Complaint Process

Two Creeks did not provide a detailed complaint resolution process in their application. Two Creeks stated that in the case of noise complaints it would investigate noise levels, and if found to be in violation of permit requirements, work with stakeholders in an attempt to address complaints. Commission staff recommended Two Creeks develop a complaint process as Two Creeks' 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 Two Creeks 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. Although the Commission is not requiring Two Creeks to develop a specific complaint resolution process, the Commission stresses the importance of communication between Two Creeks and community in and around the project area.

Aesthetics and Fencing

Two Creeks 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. Two Creeks 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 Two Creeks 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 the proposed 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 Two Creeks 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 are several endangered, threatened, and special concern species located within the search buffer of the proposed project. However, an assessment of habitat found in the impacted project area indicated there is no area of suitable habitat for most of the species found in the review. Northern long-eared bats may use parts of the project area for summer habitat, particularly areas with trees. Two Creeks stated that tree clearing in the project area would be kept to a minimum, and if necessary, they would follow USFWS guidelines on tree clearing dates to reduce the chance of impacts to this species.

Records for three protected raptor species were found within the wider project area during the ER Review. Nest sites for these species are greater than 660 feet from areas where project activity would occur, therefore, it is unlikely the project would impact these species. Should any active nests be observed closer to the project area, work should be halted during that species' active nesting period to avoid disturbances from construction activities.

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.

Two Creeks provided the Commission with a vegetation management plan after the EA was complete. This plan 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 would be delayed in early summer until ground-nesting birds had finished nesting. Commission and DNR staff should 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 Two Creeks to continue to work with the Commission and DNR staff to develop a 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 would require Two Creeks to develop and conduct a post-construction avian mortality study. Two Creeks 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 Two Creeks proposed wildlife reporting system 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. Two Creeks objected to this imposition of this condition primarily on the grounds of cost. Given the uncertainty regarding avian mortality associated with solar facilities, and the potential risk to migratory birds, the Commission finds it reasonable to require Two Creeks to work with the Commission and DNR to develop and conduct a post-construction avian mortality study. Working with Commission staff and DNR on the scope and duration of the study may mitigate some of the costs.

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

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project is found to be in compliance with state standards, DNR issues a waterway permit to Two Creeks, 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 and open-cut trenching of two wetlands to install underground collection lines. Permanent wetland fill within the total project area is proposed for the construction of a driveway for the O&M building and for concrete footing associated with the perimeter fencing. The construction of a driveway for the O&M building would require the installation of a culvert within an unnamed tributary. It is anticipated that the 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 Wisconsin Executive 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 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 DNR permits, but it remains aware of the status of DNR permits that are required before any construction may begin and those that are of significant importance to the ability of the plant to

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operate if it receives a CPCN. As described in the EA, the 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 Two Creeks 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.

Two Creeks 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 Two Creeks in development of the proposed project or to the Commission in making its decision. When Two Creeks identifies such situations, it shall consult with Commission staff familiar with the project to determine whether the change rises to the level where Commission review and approval is appropriate. If Commission review is appropriate, Two Creeks 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 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;
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 Two Creeks 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. Two Creeks 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 proposed project will not have an undue adverse impact on environmental values.

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

Two Creeks provided a construction schedule as part of its application, which summarized as follows:

Activity	Estimated Start	Estimated Completion
Construction Begins	August 2019	
Mobilization	August 2019	August 2019
Site Preparation and Road Construction	September 2019	October 2019
Drive Posts	October 2019	May 2020
Install Racking	October 2019	May 2020
Install Inverters	October 2019	May 2020
Install Modules	May 2020	November 2020
Construct Project Substation	April 2020	September 2020
Construct Gen-Tie Line	May 2020	August 2020
Commissioning	September 2020	December 2020
In-Service Date		December 2020

Assignment of Rights

In its application, Two Creeks stated its intent to assign operation, ownership, and Commission authorization to construct the proposed solar facility to two Wisconsin public utilities should the Commission authorize the utilities acquisition. Pursuant to Wisconsin's CPCN law, Two Creeks' 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 Two Creeks to two Wisconsin public utilities to include an order condition limiting the rights granted under the CPCN to those provided to Two Creeks as a wholesale merchant, and requiring any future owner or operator of the project to honor the commitments made by Two Creeks.

Certificate

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

Order

1. Two Creeks is authorized to construct the proposed solar PV electric generation facility, as described in the application and as modified by this Final Decision.

2. Two Creeks 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 Two Creeks cancels the project or enters into any arrangement with another party regarding ownership or operation of the proposed facilities, Two Creeks shall provide prior notice to the Commission.

4. Two Creeks shall obtain all necessary federal, state, and local permits prior to commencement of construction.

5. Two Creeks 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, Two Creeks 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. Two Creeks 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. Two Creeks 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, Two Creeks 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, Two Creeks 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. Two Creeks shall report its findings to the Commission using the same format as its pre-approval noise studies.

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

10. Two Creeks shall work with Commission and DNR staff on developing a vegetation management plan that minimizes impacts to ground nesting birds and creates an environmentally sustainable ground cover on the solar array sites.

11. Two Creeks shall use eight-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. Two Creeks shall conduct an updated ER Review closer to the start date of construction (no more than one year prior to construction start).

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

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

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

16. Two Creeks shall comply with the NEC or the NESC and Wis. Admin. Code ch. PSC 114, as appropriate. In case of conflict or overlap between code requirements, Two Creeks 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 Two Creeks 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 Two Creeks 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 Two Creeks 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 Two Creeks:

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 Two Creeks 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, Two Creeks shall inform the Commission of those facts within 20 days after the date on which the Certificate becomes void.

20. All commitments made by Two Creeks in its application, subsequent filings, and the provisions of this Final Decision shall apply to Two Creeks, 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 Two Creeks 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 Wis. Stat. §§ 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 'Coker for', is written over the printed name of the Secretary to the Commission.

Steffany Powell Coker
Secretary to the Commission

SPC:AR:jlt:DL: 01674319

See attached Notice of Rights

PUBLIC SERVICE COMMISSION OF WISCONSIN
4822 Madison Yards Way
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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.¹⁶ 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

¹⁶ See *Currier v. Wisconsin Dep't of Revenue*, 2006 WI App 12, 288 Wis. 2d 693, 709 N.W.2d 520.

APPENDIX A

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