Record of Decision

Badger State Solar Project
Final Environmental Impact Statement

Rural Utilities Service
U.S. Department of Agriculture

Badger State Solar, LLC

Prepared for:

U.S. Department of Agriculture

Rural Utilities Service

1400 Independence Avenue Southwest

Washington, DC 20250-1510

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Contents

Summary of the Agency's Decision

The Final Environmental Impact Statement (EIS) was prepared by the Rural Utilities Service (RUS) to analyze the potential direct, indirect, and cumulative environmental effects related to RUS providing financial assistance for the Badger State Solar, LLC (Badger State Solar) Alternating Current solar project (Project). The Final EIS was prepared pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. §§ 4321-4327), and in accordance with the Council on Environmental Quality's (CEQ) regulations for implementing the procedural provisions of NEPA (40 CFR 1500-1508) and RUS regulations (7 CFR § 1970).

RUS is the lead Federal agency as defined by 40 CFR § 1501. As the lead Federal agency, and as part of its broad environmental review process, RUS must take into account the effect of the proposal on historic properties in accordance with Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f) and its implementing regulation "Protection of Historic Properties" (36 CFR Part 800). Pursuant to 36 CFR § 800.2(d)(3), RUS is using its procedures for public involvement under NEPA, in part, to meet its responsibilities to solicit and consider the views of the public during Section 106 review. Accordingly, comments submitted in the EIS process also informed RUS's decision-making in Section106 review.

Badger State Solar proposes to construct, install, operate, and maintain an approximately 1,200 acre, 149 megawatt (MW) photovoltaic (PV) alternating current solar energy generating facility on a site in the Townships of Jefferson and Oakland, west of the City of Jefferson, in Jefferson County, Wisconsin. Badger State Solar has indicated the intention to request Federal financing from the USDA RUS for development of the Project. While RUS is authorized under the Rural Electrification Act of 1936 (REA) to finance electric generation infrastructure in rural areas, it is the Midcontinent Independent System Operator, Inc. (MISO), not RUS, who is responsible for electric grid planning. Supporting renewable energy projects meets both RUS's goal to support infrastructure development in rural communities and USDA's support of the June 2013 Climate Action Plan, which encourages voluntary actions to increase energy independence.

The Notice of Intent (NOI) to prepare the Badger State Solar EIS and to hold a virtual public scoping meeting was published in the Federal Register on October 5, 2021. The NOI invited stakeholders to comment on the Proposed Action and assist in identifying the required permits and approvals that must be obtained and the administrative procedures that must be followed. A notice was also published in the Daily Jefferson County Union and Watertown Daily Times newspapers published on October 6, 7, and 8, 2021. Scoping materials were made available at the Jefferson Public Library in Jefferson, WI, the Cambridge Community Library in Cambridge, WI, and the Lake Mills Library in Lake Mills, WI. RUS also hosted an interagency meeting on October 28, 2021, during the scoping period.

The Notice of Availability (NOA) for the Draft EIS and to hold a public meeting was published in the Federal Register on March 1, 2022, and on March 7, 8, and 9, 2022, in the same local newspapers used for previous public notices. Copies of the Draft EIS were made available for review at the public libraries where scoping materials were provided previously. The NOA also announced a virtual public meeting held on March 22, 2022, that was hosted by RUS. RUS hosted an interagency meeting on March 24, 2022.

The NOA for the Final EIS was published in the Federal Register on August 26, 2022, and on September 6, 7, and 8, 2022 in the same local newspapers used for previous public

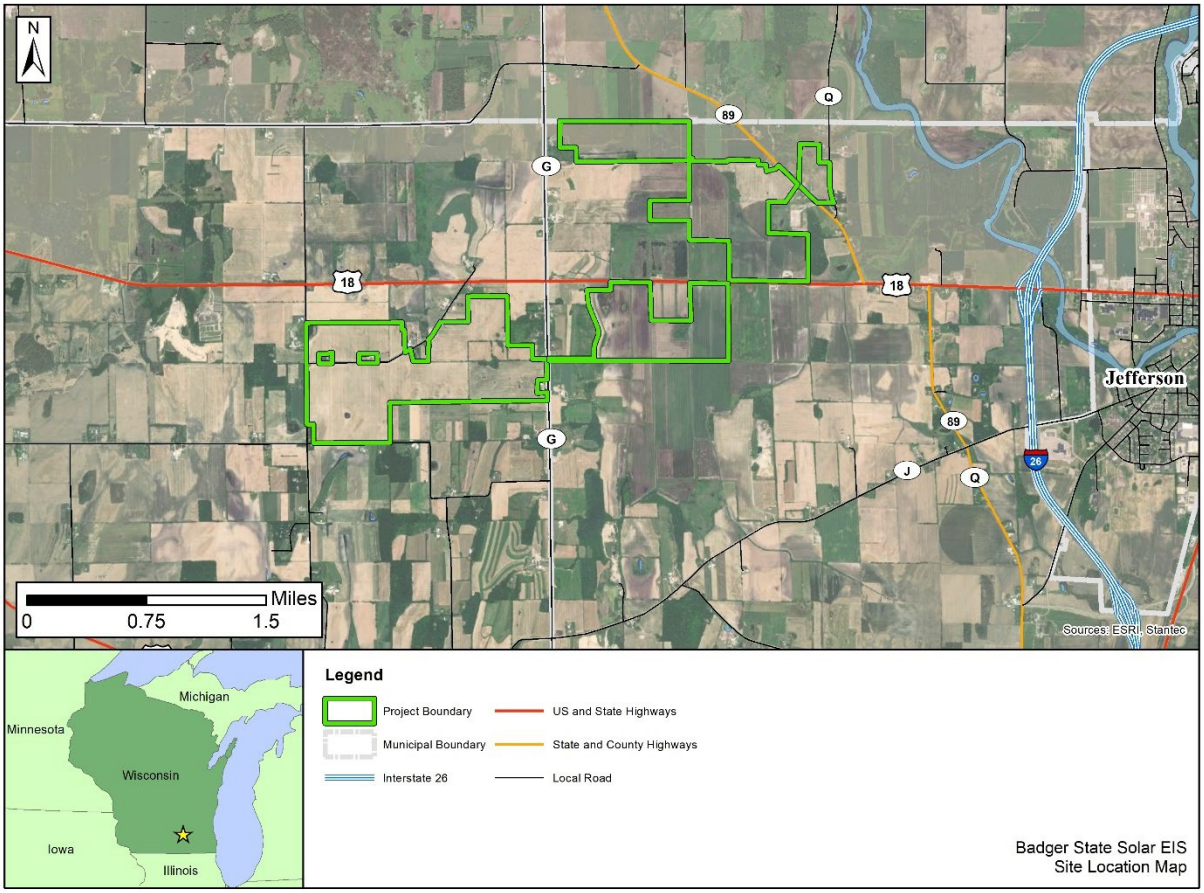
notices. Copies of the Final EIS were made available for review at the same public libraries where scoping materials and the Draft EIS were provided previously.

The NOI, NOA, and other project information (including the Alternative Evaluation and Site Selection Studies which provided the initial framework for the NEPA alternative selection) were available for review on the RUS and Badger State Solar websites (https://www.rd.usda.gov/resources/environmental-studies/impact-statements, https://badgerstatesolar.consultation.ai, and https://www.badgerstatesolar.com) and at the previously mentioned public libraries.

Introduction

This document is RUS' Record of Decision (ROD). The ROD states RUS' decision, the rationale for the decision, and summarizes all alternatives considered in reaching the decision.

Badger State Solar proposes to construct, install, operate, and maintain a 149 megawatt (MW) photovoltaic (PV) alternating current solar energy generating facility and proposed collector substation on a site in the Townships of Jefferson and Oakland, in Jefferson County, Wisconsin. The facility would be located on approximately 1,200 acres on the north and south sides of US Highway 18, approximately 2-miles west of the City of Jefferson. A majority of the Project site would be located west of State Highway 89 (Figure 1).



Construction involves the installation on leased lands of 487,848 single-axis tracking PV panels. The PV panels would be mounted on a steel racking frame. Supporting facilities include an electrical substation. The lease agreement allows for an operating period of 40 years. A power purchase agreement has been executed with Dairyland Power Cooperative for the entire output of the Proposed Action. The Project site is near the point of interconnection to the grid at the American Transmission Company (ATC) Jefferson substation near the intersection of State Trunk Highway 89 and US 18.

Construction equipment would include graders, bulldozers, excavators, forklifts, trailers, plows, trenchers, pile drivers, and directional boring rigs. Vehicles for transporting construction materials and components primarily would be legal load over-the road flatbed and box trucks. Transport would use existing regional roads, bridges, and intersections. Laydown areas would be established within the Project site. Internal site access roads would be required. The site would be fenced.

a) Purpose and Need

Many of Wisconsin's fossil-fueled power plants are scheduled to cease power generation over the next several years. Six of the 12 coal-fired power plants in Wisconsin have been retired or are scheduled to go offline, including Dairyland Power's Genoa #3 coal-fired power plant which closed in June 2021. Dairyland Power has announced a Sustainable Generation Plan that includes goals of reducing its carbon dioxide intensity rate by 50 percent and increasing renewable power generation 30 percent by 2030. Badger State Solar entered into a power purchase agreement with Dairyland Power for the entire electrical output of the Proposed Action, which will contribute to Dairyland Power's effort to achieve its Sustainable Generation Plan goals. Badger State Solar has indicated that it will request Federal financing from the USDA RUS for the development of a utility-scale solar facility in Jefferson County, Wisconsin, to replace load demand on local utilities, including Dairyland Power, resulting from coal-fired power plant closures or scheduled decommissioning. RUS's proposed Federal action is to decide whether or not to provide financing assistance for the Badger State Solar's Proposed Action.

The Rural Electrification Act of 1936 (REA), as amended (7 USC §§ 901-903) authorizes the Secretary of Agriculture to make rural electrification and telecommunication loans, and specifies eligible borrowers, references, purposes, terms and conditions, and security requirements. RUS is authorized to make loans and loan guarantees to finance the construction of electric distribution, transmission, and generation facilities, including system improvements and replacements required to furnish and improve electric service in rural areas, as well as demand-side management, electricity conservation programs, and on- and off-grid renewable electricity systems.

RUS's decision of whether or not to provide financing assistance for the Proposed Action involves the following actions.

- As part of its review process, RUS is required to complete the NEPA process along with other technical and financial considerations in processing the Applicant's application. RUS agency actions include the following: provide engineering reviews of the purpose and need, engineering feasibility, and cost of the Proposed Action.

- Ensure that the Proposed Action meets the borrower's requirements and prudent utility practices.
- Evaluate the financial ability of the borrower to repay its potential financial obligations to RUS.
- Ensure that NEPA and other environmental laws and requirements and RUS environmental policies and procedures are satisfied prior to taking a federal action.

While RUS is authorized under REA to finance electric generation infrastructure in rural areas, it is the Midcontinent Independent System Operator, Inc. (MISO), not RUS, who is responsible for electric grid planning. The Proposed Action is a key component of Dairyland Power's generating capacity projection for both the MISO Resource Adequacy requirements and the Minnesota and Wisconsin renewable energy requirements. The Proposed Action will allow Dairyland Power to simultaneously meet its generating capacity needs and its sustainability goals.

Supporting renewable energy projects meets both RUS's goal to support infrastructure development in rural communities and USDA's support of the June 2013 Climate Action Plan, which encourages voluntary actions to increase energy independence.

b) Permits Required

Badger State Solar submitted an Application for a Certificate of Public Convenience and Necessity (CPCN) to the Public Service Commission of Wisconsin (PSCW). The environmental impact of the Proposed Action was reviewed by PSCW, in coordination with Wisconsin Department of Natural Resources (WDNR), as part of the application for a CPCN. PSCW issued an Order approving the CPCN application subject conditions issued in the Final Decision on February 26, 2020 (Docket 9800-CE-100)

Badger State Solar consulted with the Wisconsin Department of Natural Resources and an endangered resource review has been submitted to the agency. Consultations with other agencies include the Wisconsin State Historic Preservation Officer (SHPO), Federal Aviation Administration, and informal consultation with the US Fish and Wildlife Service (USFWS). Badger State Solar also has consulted property owners, local town and county officials and staff, state elected representatives, Wisconsin Department of Agriculture Trade and Consumer Protection and engaged the general public.

Badger State Solar anticipates potential permits as follows: Wisconsin Department of Transportation (utility permit), Wisconsin Division of Safety and Buildings (building permit), Jefferson County Highway Department (county highway entrance permit, oversize-overweight permit, and utility permit), Jefferson County Land Conservation Department (stormwater permit), Jefferson County (utility, building, and sanitary permits), Jefferson County Farm District Drainage No. 16 (drainage alteration permit), City of Jefferson (building, sign, and driveway permits), Town of Oakland (driveway permit).

RUS consulted with the USFWS, Natural Resources Conservation Service, and United States Department of the Interior regarding the proposed Project. Additionally, during the interagency scoping meeting the US Army Corps of Engineers (USACE) requested to be a consulting party on the EIS.

c) Other Investigations and Analyses to Be Completed Post-ROD

Badger State Solar would pursue all appropriate permits following completion of the ROD. Further field investigation of drain tile networks would be conducted prior to initiation of construction activities. The locations of active (functioning and necessary) drain tile systems would be identified to avoid drain tile locations within the Project site; re-route drain tile systems away from locations susceptible to damage from construction; or where agricultural fields with pattern tile networks are present. Badger State Solar would work with landowners to establish acceptable criteria for rerouting, replacing or abandoning in place drain tile systems within the PV array. No other investigations or analyses are anticipated post-ROD.

Background

Many of Wisconsin's fossil-fueled power plants are scheduled to cease power generation over the next several years. Six of the 12 coal-fired power plants in Wisconsin have been retired or are scheduled to go offline, including Dairyland Power's Genoa #3 coal-fired power plant which closed in June 2021. Dairyland Power has announced a Sustainable Generation Plan that includes goals of reducing its carbon dioxide intensity rate by 50 percent and increasing renewable power generation 30 percent by 2030. Badger State Solar entered into a power purchase agreement with Dairyland Power for the entire electrical output of the Proposed Action, which will contribute to Dairyland Power's effort to achieve its Sustainable Generation Plan goals. The Applicant's purpose and need for the Proposed Action is to develop a utility-scale solar facility in Jefferson County, Wisconsin, to replace load demand on local utilities, including Dairyland Power, resulting from coal-fired power plant closures or scheduled decommissioning.

The REA authorizes the Secretary of Agriculture to make rural electrification and telecommunication loans, and specifies eligible borrowers, references, purposes, terms and conditions, and security requirements. RUS is authorized to make loans and loan guarantees to finance the construction of electric distribution, transmission, and generation facilities, including system improvements and replacements required to furnish and improve electric service in rural areas, as well as demand-side management, electricity conservation programs, and on- and off-grid renewable electricity systems. Badger State Solar has indicated the intention to request financing assistance from RUS for the Proposed Action's 149-MW solar array in Jefferson County, Wisconsin. RUS's proposed Federal action is to decide whether or not to provide financing assistance for the Proposed Action.

As part of its review process, RUS is required to complete the NEPA process along with other technical and financial considerations in processing Badger State Solar's application. RUS agency actions include the following: provide engineering reviews of the purpose and need, engineering feasibility, and cost of the Proposed Action. RUS must also ensure that the Proposed Action meets the borrower's requirements and prudent utility practices and evaluate the financial ability of the borrower to repay its potential financial obligations to RUS. RUS also ensures that NEPA and other environmental laws and requirements and RUS environmental policies and procedures are satisfied prior to taking a Federal action.

AECOM, on behalf of RUS, prepared the third-party EIS in accordance with RUS RD Instruction 1970-D Exhibit B EIS Outline. RUS has completed an independent analysis of this EIS and concurs with its scope and content. In accordance with 7 CFR Part 1970, RUS has

conducted an independent evaluation of the Final EIS and believes it accurately assesses the impacts of the Proposed Action.

Alternatives Development and Evaluation

a) Alternatives Eliminated from Detailed Consideration

In accordance with the Council on Environmental Quality (CEQ) implementing regulations for NEPA (40 CFR §1500-1508), RUS evaluated all reasonable alternatives, and for those alternatives eliminated from detailed study, discussed the reasons for their having been eliminated (40 CFR §1502.14(a)).

Energy Technology Alternatives

Dairyland Power's Minnesota retail members are allowed to distribute solar- and wind-generated energy. However, these renewable energy sources provide only 23.2 MW of generation from solar and 1.1 MW of generation from wind. The Proposed Action would add 149 MW of solar generation to Dairyland Power's system. Distributed power generation from member cooperatives cannot offset the capacity demand created by the closures of fossil-fueled power plants. Further, solar-generated energy provides an advantage over other renewable energy generation sources since the peak electricity generation by solar is during daytime hours when energy demand also peaks.

Dairyland Power has a goal of 50 percent reduction in carbon dioxide intensity rate by 2030 and increase renewable energy production. To meet these goals, additional renewable energy sources are needed to offset the loss of fossil-fuel energy production.

Although Dairyland Power would continue to evaluate other renewable and non-renewable energy production sources, those actions are outside of the purview of Badger State Solar and RUS. Therefore, alternative technologies other than solar power generation were not considered further in this EIS and the alternatives analysis is focused on solar energy facility siting alternatives for the Badger State Solar facility.

Solar Facility Site Alternatives

Eighteen potential site location alternatives for the proposed solar facility were considered using the alternative evaluation process and selection criteria described in Section 2.1.3 of the Final EIS. Eight site alternatives determined to be feasible as points for interconnection were evaluated in the Phase 2 screening analysis. The Phase 3 site selection evaluation involved detailed analysis of the four most feasible sites from Phase 2 as summarized in Table 1 below. Lower site rank scores represent a more favorable evaluation for a given category and for the project overall. Where given categories were essentially identical among sites, they were given the same numerical rank score.

Table 1. Screening Results for the Four Most Favorable Sites

Evaluation Criteria	Substations			
	Jefferson 138 kV	**Cambridge 138 kV**	**Rockland 138 kV**	**Root River 138 kV**
	Site Characteristics [Site Ranking]			
Total Land (acres)	1,203.00 [1.5]	1,199.00 [1.5]	1,325.00 [3]	1,518.00 [4]
Buildable Land (acres)	811.5 (67%) [1]	707 (59%) [2]	702 (53%) [3]	364 (24%) [4]

Evaluation Criteria	Substations			
	Jefferson 138 kV	Cambridge 138 kV	Rockland 138 kV	Root River 138 kV
	Site Characteristics [Site Ranking]			
Parcel Availability [if leased]	65 [0]	58 [0]	50 [0]	64 [0]
Distance to Interconnect (miles)	0 [2.5]	0 [2.5]	0 [2.5]	0 [2.5]
Habitable Residences	39 [2]	20 [1]	44 [3]	67 [4]
Forested Area (acres)	31.4 [1]	100 [2]	213 [3]	530 [4]
Topography >5% Slope (acres)	163.21 [1]	242 [2]	575 [4]	312 [3]
Hydric Soil (acres)	530 [3]	504 [2]	346 [1]	1344 [4]
Waterways (miles)	6.12[a] [3]	5.00[b] [2]	4.57[b] [1]	9.23[b] [4]
Wetlands (acres)	32.5[a] [1]	158[b] [3]	62.4[b] [2]	444[b] [4]
Floodplain (acres)	0 [1]	31.16 [2]	46.92 [3]	204.69 [4]
Floodway[c] (acres)	0 [-]	93.14 [-]	126.50 [-]	393.68 [-]
Farmland[d] (acres)	916 [1]	1,008 [2]	1,057 [3]	1,311 [4]
0.5-Mile Radius Visual Zone From Roads (miles)	17.25 [1.5]	19.3 [3]	24.3 [4]	17.5 [1.5]
Total Site Rank Score	**[19.5]**	**[25.0]**	**[32.5]**	**[43.0]**

[a] Field survey
[b] Desktop survey based on Wisconsin Wetland Inventory
[c] Not ranked
[d] Prime farmland and farmland of statewide importance, prime farmland if drained.

Based on the Phase 3 detailed analysis, and evaluation of the existing transmission grid in Wisconsin, land suitability for development of the solar facility, landowner acceptance, and responsiveness of the community, the Jefferson site in Jefferson County best met the site selection criteria and was determined to be the most reasonable site location alternative for solar facility development. This site location alternative was the only siting alternative carried forward for detailed field analysis as the Proposed Action, the other alternatives were eliminated from consideration.

b) Alternatives Evaluated in Detail

The alternatives evaluated for the Badger State Solar project included the No Action Alternative and the Proposed Action.

Under the No Action Alternative, RUS would not fund the Proposed Action. The No Action Alternative would not meet the goals of a replacement power generation source to meet local demand or contribute to Dairyland Power's 2030 Sustainable Generation Plan goals. Badger State Solar would not develop the solar facility and would not interconnect at the ATC-owned Jefferson 138kV substation.

The Proposed Action includes the construction, installation, operation, and maintenance of a 149 MW PV alternating current solar energy generating facility and proposed collector substation on approximately 1,200 acres located on the north and south sides of US Highway 18 (US 18), approximately 2 miles west of the City of Jefferson and west of State Highway 89. Laydown areas would be established within the Project site. Internal site access roads would be required. Fencing would be placed around contiguous blocks of solar arrays.

c) Alternatives Not Selected and RUS' Rationale

Under the No Action Alternative, RUS would decide not to fund the Proposed Action. Badger State Solar would not develop the solar facility. It is presumed the site would continue to be used for agricultural purposes as at present. Continued use of the proposed site for agriculture would result in minor adverse impacts on soils, water resources, fisheries and aquatic resources in contrast to the potential minor beneficial impacts to these resources under the Proposed Action. Effects on the economy would remain in their current state under the No Action Alternative.

d) RUS's Preferred Alternative

RUS considers the Proposed Action to be the preferred alternative based on the outcome of the alternative evaluation process.

Under the Proposed Action, Badger State Solar proposes to construct, install, operate, and maintain a 149 MW PV alternating current solar energy generating facility on a site in the Townships of Jefferson and Oakland, west of the City of Jefferson, in Jefferson County, Wisconsin. The Proposed Action would take place on approximately 1,200 acres located on the north and south sides of US Highway 18, approximately 2-miles west of the City of Jefferson. A majority of the Project site would be located west of State Highway 89. The proposed collector substation would be located within the Project site. Laydown areas would be established within the Project site. Internal site access roads would be required. Fencing would be placed around contiguous blocks of solar arrays. (Figure 1)

1) Generating Facility Description

The proposed solar array facility would consist of 487,848 single-axis tracking PV panels. The PV panels would be mounted on a steel racking frame. Supporting facilities include an electrical substation. The lease agreement allows for an operating period of 40 years. A power purchase agreement has been executed with Dairyland Power for the entire electrical output of the Proposed Action. The Project site is near the point of interconnection to the grid at the ATC Jefferson substation near the intersection of State Trunk Highway 89 and US 18. A short 138 kilovolt (kV) overhead line would connect the two stations.

2) Solar Panels

The initial Proposed Action was designed for approximately 487,848 panels, the final solar panel count could range from approximately 450,000 to 550,000. The actual number of solar panels would depend upon final engineering design and configuration and the capacity of solar panels available on the market at the start of construction and is expected to be less than 487,848 solar panels.

The PV modules would be plate glass and comprised of approximately 72 cells with an aluminum frame (approximate dimensions of 1 by 2 meters). The PV modules would be connected in series and mounted on a tracker system. Modules would be mounted on steel racking frames positioned 3 to 7 feet from the finished ground surface. Modules would be oriented to track east to west to follow the sun throughout the day with a +\- 60-degree range of motion (single axis tracking) and would be driven by electric motors. Selection of the final racking system would be determined during engineering design.

The individual trackers and supporting piles would be oriented in rows from north to south. Approximately 63,306 foundation piles installed 6 to 10 feet deep would be used for the

Proposed Action. The solar trackers are anticipated to be self-powered, although some tracker systems currently available require external power from an auxiliary power source. Fencing would be installed around separate blocks of panels.

3) Access Roads

Existing public roadways would be used to access the site. Internal roads on the solar facility site are expected to be between 12 and 15 miles in length. Construction matting may be used to a limited extent in areas with soil strength limitations. The existing soil surface would remain intact, planted in perennial vegetation, and maintained during operation and maintenance once construction is completed.

Aggregate materials would be used at roadway approaches to the site and/or in areas with frequent vehicle traffic to support construction vehicles when needed based on soil limitations. Topsoil would be removed and stored for reclamation during decommissioning. Geotextile matting would be installed prior to placement of aggregate to prevent mixing with native subsoil. The aggregate would be maintained for the life of the Proposed Action where needed.

4) Collector Circuits and Substation

The solar facility would include underground collector circuits and a substation. Approximately 25 miles of collector cable would be directly buried cables or cables in buried ducts. There would be approximately 10.5 miles of collector circuits installed by trenching and approximately 0.4 miles installed by directional boring.

The underground collector system would be buried at a depth of 36 inches to the top of the cables in 1-foot-wide trenches. The width of the trench would vary based on the number of collector circuits within the trench.

There would be an overhead crossing spanning a distance of 375 feet to avoid boring under US 18. The overhead span would be more than 40 feet above the roadway supported by two to four poles with a minimum of 15 lines.

The Proposed Action would include a collector substation with a 138/34.5 kV main transformer. The substation footprint is expected to be 280 feet by 195 feet. The substation would generally contain switching gear, metering and instrumentation, circuit breakers, and supporting equipment. There would be a protection and control building, internal access roads, security fencing, buried power cables, lightning protection masts, and yard lighting for use during maintenance or emergency activities.

5) Construction

Construction is anticipated to begin in the fourth quarter of 2022 and conclude in the fourth quarter of 2023. Construction equipment would include graders, bulldozers, excavators, forklifts, trailers, plows, trenchers, pile drivers and directional boring rigs. Laydown areas would be established within the Project site.

Clearing and grading would be conducted as needed to establish site access, internal access roads, staging/laydown areas, foundations, substation, and the solar array field. Panel arrays would be designed and constructed to conform to the existing topography to avoid the need for significant grading. Access roads would be constructed as close to existing grade as possible, maintaining preconstruction hydrologic flow patterns. It is anticipated that

approximately 2.5 acres of clearing and grubbing would be necessary with not more than 2 acres of tree clearing.

As part of the Joint Development Agreement (JDA) with local governments, Badger State Solar would fund a vegetative buffer for adjacent, non-participating landowners whose primary residence is in direct view of the solar arrays. Following construction, prairie-style vegetation consisting of native grasses and flowering plants would be planted between the property line and fence line of the Proposed Action.

Pre-existing conditions of access roads would be documented before construction. At the conclusion of construction, Badger State Solar would return any damaged portions of roadways to pre-construction condition or compensate local governments as required.

6) Operations and Maintenance

Badger State Solar anticipates that the solar facility would be staffed with full-time technicians. An average of two employees would be onsite for two days each week during operations. Maintenance would be based on facility needs and industry best practices for operations and maintenance and would take place per manufacturer's specifications, monthly, or annually as appropriate.

Planned inspections would include the solar panel racking system, junction box, combiner box, perimeter fencing, and roads. Pest and erosion control maintenance would be carried out as needed.

Routine annual vegetation maintenance would be carried out. This would include mowing, invasive plant control, trimming or tree removal, and perimeter fence vegetation management.

Solid waste would be recycled where commercially possible. Waste that could not be recycled would be disposed of at an appropriately permitted waste disposal facility. A well or water tank would be installed to support water requirements. Water for washing the solar array panels would be procured under agreement with local landowners, through installation of onsite wells, or by use of water trucks. The Operations and Maintenance building would have a septic system.

7) Decommissioning

The expected life of the proposed solar array is 35-40 years. Following the useful life of the solar array facility, it would be decommissioned and the area would be restored to pre-construction condition for agricultural use.

Decommissioning activities would require approximately 12 months to complete. In general, decommissioning activities would include:

- Dismantling and removal of above-ground equipment and structures, including solar panels, panel racking, transformers, and the onsite substation;
- Excavation and removal of cabling;
- Removal of foundations including piles, piers, and posts;
- Removal of underground cables in accordance with landowner lease agreements;
- Scarification of compacted areas within and contiguous to the solar facility, including but not limited to internal and external access roadways.

Decommissioning of the gen-tie line, telecommunication lines, and collector substation would involve:

- Dismantling and demolishing above-ground structures;
- Removal of concrete foundations;
- Excavation and removal of soils and broken concrete from the site; and
- Surface contouring to return disturbed areas to pre-construction conditions.

To restore areas to conditions suitable for agricultural production, the land would be tilled to break up the soil and the vegetation cover established for the Proposed Action.

e) Environmentally Preferable Alternative

The identification of an environmentally preferred alternative is required by NEPA [40 CFR § 1505.2(a)(2)]. The environmentally preferred alternative is that "alternative that causes the least damage to the biological and physical environment" and "best protects, preserves, and enhances historic, cultural, and natural resources" (CEQ 40 Questions). The Proposed Action is the environmentally preferred alternative. The proposed action results in lower long-term, and in some cases potentially minor beneficial impacts to soils, water resources, biological resources, and cultural resources as comparted to the No Action Alternative due to the change from agricultural land use to a solar facility with the application of the following mitigation measures:

1) Mitigation Measures from CPCN Process

- Spreading subsoil on cropland or pasture will be avoided.
- Drain tile locations in construction areas will be flagged and avoided to the extent practicable.
- Badger State Solar shall perform post-construction noise studies as described in the current version of the PSCW Noise Measurement Protocol. Within three months of the date when the authorized solar facility is operational, Badger State Solar shall repeat the noise measurements conducted as the pre-construction noise study, shall measure the maximum noise created at the solar facility with all equipment and inverters on and while the panels auto-rotate, and shall measure the noise at the site with all units off.
- Badger State Solar shall make available stray voltage testing for all agricultural confined animal operations within one-half mile of the solar farm.
- To reduce the potential for impacts to northern long-eared and other bat species as well as nesting birds, it would be beneficial for the approximately two acres or less of tree clearing to occur outside of the summer avoidance period of June 1 through August 15.
- Badger State Solar shall work with PSCW and WDNR 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. The plan shall be provided to PSCW and WDNR staff at least 30-days prior to the pre-construction meeting.
- Badger State Solar shall develop and implement a training, response, and reporting system for any incidental wildlife observations and provide an annual report of any incidents recorded by the system to PSCW and WDNR staff.

- Badger State Solar shall meet with PSCW and WDNR staff once project designs and construction plans are complete and prior to construction in order to review planned actions and ensure their compliance with permit and order conditions.
- When unexpected situations may be discovered in the field, Badger State Solar shall consult with PSCW staff familiar with the Proposed Action to determine whether the change rises to the level where PSCW review and approval is appropriate.
- Badger State Solar will develop a Spill, Prevention, Countermeasures, and Control (SPCC) Plan all of its contractors will be required to comply with the plan. At a minimum the SPCC Plan will identify mitigation methods to be employed, should a spill occur.
- Larger wetland communities and nearby waterways will be flagged and avoided to the extent practicable. Best management practices (BMPs) such as erosion control methods and use of construction matting will be employed to protect wetlands and waterways in and/or near the construction areas.
- Essentially all of the collection system will be installed utilizing trenching methods (with the exception of the overhead connection lines over US 18). Where these facilities must cross waterways, impacts will be avoided by using underground horizontal directional drilling (HDD).
- Once the panels and associated facilities have been installed, the surrounding area will be seeded with an appropriate herbaceous seed mix for perennial grasses. A native prairie grasses, sedges, and forbs mix may be used in open spaces between panel blocks and areas between the perimeter fence and property boundaries.
- Perimeter fencing will provide for the passage of smaller wildlife such as possum, raccoon, and rabbit while keeping larger mammals such as whitetail deer excluded.
- Panel arrays will be designed and constructed to conform to the existing topography to avoid the need for significant grading. Access roads will be constructed as close to existing grade as possible, maintaining preconstruction hydrologic flow patterns
- If glint or glare prove to be problematic for an observer, Badger State Solar would apply mitigation actions such as screening vegetation, fencing, or other ways of visual screening between the areas of glare and viewers.
- Badger State Solar would evaluate each possible route for suitability and potential mitigation needs prior to construction.
- A minimum 10-foot (3-meter) buffer will be maintained between the Proposed Action ground disturbing activities and the boundary of the cemetery.
- Badger State Solar shall mitigate impacts to line-of-sight communications and landowners that can show disruption to broadcast communications post construction.

2) Mitigation Recommendations from the U.S. Fish and Wildlife Service

- Identify bald eagle nests that are within or near the Project site to inform project layout. If the action may impact a bald eagle nest, or unavoidably disturb bald eagles, contact the USFWS regarding the Eagle Act permit process.

- Select a site with the least wildlife value practicable. If low wildlife sites are not feasible, avoid or minimize to the greatest degree practicable the conversion of forest areas, native grasslands, and wetlands.
- Help to ensure that bat habitat is adequately protected by minimizing the removal of forested habitat and protecting forested hedgerows or other forested corridors connecting areas of suitable bat habitat.
- For Federally listed species, plan to avoid impacts to suitable habitat. If habitat impacts cannot be avoided, conduct appropriate surveys to confirm species presence.
- Plan the site to provide habitat for pollinators, including a water source (e.g., ephemeral pool or low area to provide additional resources for pollinators and bats.
- When removing wildlife habitat, avoid spring and summer (March 15-August 15 when feasible).
- Consider voluntary mitigation to offset the loss of forested areas, wetlands, or native grasslands.
- Use construction techniques and materials (wildlife friendly erosion control materials) that are unlikely to cause additional harm to wildlife.
- Implement measures to reduce the chances that equipment will exacerbate the spread of invasive species into natural habitats (e.g., cleaning equipment prior to accessing the site, post-site restoration monitoring, and invasive plant treatments, as necessary).

3) Mitigation Measures from Section 106 Consultation

- Maintain a minimum 10-foot (3-meter) buffer between the Proposed Action ground disturbing activities and the boundary of the historic cemetery.
- Implement the post-review discovery plan if cultural resources are encountered during ground-disturbing activities.

Public Involvement

a) Notice

1) Scoping

The NOI to prepare the Badger State Solar EIS and to hold a virtual public scoping meeting was published in the Federal Register on October 5, 2021. The NOI invited stakeholders to comment on the Proposed Action and assist in identifying the required permits and approvals that must be obtained and the administrative procedures that must be followed. A notice was also published in the Daily Jefferson County Union and Watertown Daily Times newspapers published on October 6, 7, and 8, 2021. Scoping materials were also made available at the Jefferson Public Library in Jefferson, WI, the Cambridge Community Library in Cambridge, WI and the Lake Mills Library in Lake Mills, WI.

The NOI also announced a virtual public scoping meeting held on October 26, 2021, that was hosted by RUS. Two individuals attended this scoping meeting and had no comments during the meeting.

RUS also hosted an interagency meeting on October 28. Seven individuals from various state and Federal agencies and local governments attended the meeting and participated in the discussion. Comments received during the interagency meeting were focused on transportation topics (pertaining to access points/restrictions and permitting), wetlands and waterways, and the rusty patched bumblebee. The only written submittal received during the scoping period was a request from the US Army Corps of Engineers to be a consulting party on the Project.

2) Draft EIS

The NOA for the Draft EIS and to hold a public meeting was published in the Federal Register on March 1, 2022, and in the local newspapers on March 7, 8, and 9, 2022 used for previous public notices. Copies of the Draft EIS were also made available for review at the public libraries where scoping materials were provided previously.

The NOA also announced a virtual public meeting held on March 22, 2022, that was hosted by RUS. One individual attended this meeting and had no comments during the meeting.

RUS also hosted an interagency meeting on March 24, 2022. Seven individuals from various state, Federal agencies and local governments attended the meeting and participated in the discussion. Comments during the interagency meeting pertained to the overall amount of public interest in the project, the wetland delineation process, and animal exclusion fencing that would be placed around the Badger State Solar Project.

3) Final EIS

The NOA for the Final EIS was published in the Federal Register on August 26, 2022, and on September 6, 7, and 8 2022, in the local newspapers used for previous public notices. Copies of the Final EIS were also made available for review at the libraries where scoping materials were provided previously. The comment period ended on October 3, 2022.

b) Comments Received

No public comments were submitted during scoping. The only written submittal received during the scoping period was a request from the US Army Corps of Engineers to be a consulting party on the Project. Comments received during the interagency scoping meeting were focused on transportation topics (pertaining to access points/restrictions and permitting), wetlands and waterways, and the rusty patched bumblebee. The scoping report is included in Appendix A of the Final EIS.

During the comment period on the Draft EIS, RUS received two comment letters, one from the Environmental Protection Agency and one from the Department of the Interior. Additionally, RUS received comments from Badger State Solar. Comments received were focused on site fencing and the movement of large mammals around the facility, the visibility of the project from the Ice Age National Scenic Trail, the height of the overhead transmission line, beneficial impacts to soils, wildlife, aquatics, and wetlands associated with the conversion of farmland, clarification of dates of recommended avoidance for the bat roosting seasons, clarification of land cover classes, and clarification regarding drainage ditch setbacks. Responses to comments raised during the comment period are provided below. and comments received on the Draft EIS are summarized in Appendix B of the Final EIS.

RUS received comments regarding the Final EIS, one comment letter from the Environmental Protection Agency and one from the United States Army Corps of Engineers. Due to the nature of the comments, no further agency response is needed.

c) Changes from the Draft EIS to Final EIS

This section summarizes changes RUS made from the Draft to the Final EIS, based on comments received and new information. Changes made from the Draft EIS to the Final EIS include:

- Changes to the site layout map to better display the fencing (Figure 1.1-2 and addition of Figure 3.5-2)
- Updates to Prime Farmlands to include a description of prime farmlands on the three additional Phase 3 alternative sites (Cambridge, Rockland, and Root River) in Section 3.6.2.2
- Clarification regarding the fencing around the solar panels and assessment of impacts of fencing on the movement of larger mammals in Section 3.5.3.2
- Clarification regarding the height of the overhead transmission line spanning Highway 18 in Section 1.1.1.5 and throughout the Final EIS
- Additional Section 106 consultation with the Wisconsin State Historic Preservation Office and interested Indian tribes in Section 3.9
- Addition of an analysis of visual resource impacts to the Ice Age Trail including viewshed maps in Section 3.7.2.2
- Clarification of beneficial impacts related to soils, wildlife, aquatics, wetlands, and farmlands in Table 2.6-1
- Updates to the land cover table 3.6-1 to include all land cover classes and the land cover figure 3.6-1 to better distinguish between wetlands and waterbodies
- Clarification regarding drainage ditch setbacks in Table 3.7-1

d) Changes from the Final EIS to ROD

No additional changes to the Final EIS were made on the Final EIS.

Summary of Environmental Effects

Impacts of RUS' selected alternative are summarized in Table 2.

Table 2. Summary of Potential Impacts

Environmental Resource	No Action Alternative	Proposed Action Alternative
Soils and Geology	• Over time, with continued agricultural use, soils could erode and soil nutrients could be depleted resulting in minor impacts.	• Minor, short-term, direct impact to soils during ground-disturbing construction and decommissioning, minimized by use of best management practices and implementation of the site-specific Storm Water Pollution Prevention Plan (SWPPP). Minor, long-term, direct impacts to geology during construction during installation of the foundation piles. Minor, long-term direct impacts to soils during operations from maintenance activities and potentially beneficial effects due to perennial vegetation ground cover.
Water Resources	• Indirect impacts to groundwater resources could result due to the continuing use of the Project site for agriculture. Fertilizers and pesticides may impact groundwater, erosion and sedimentation could also alter runoff patterns. • Surface water quality may degrade further due to runoff from agricultural activity.	• No adverse impacts to groundwater would be anticipated during construction or decommissioning. Impacts to groundwater from operation of the Proposed Action are anticipated to be minor, direct, and long-term associated with use of an onsite well. Changing the primary land use from agricultural to maintained perennial ground cover could result in a minor, beneficial indirect impact to groundwater. • Short-term, minor surface water quality impacts may occur during construction and operation from potential erosion and minimal amounts of hazardous waste generated. After construction is completed, soil stabilization and vegetation management measures would reduce the potential for erosion impacts during operation. Potential long-term indirect beneficial impacts could result from the reduction in agricultural activity at the site.
Air Quality	• There would be no direct or indirect impacts to air quality.	• Minor mobilization of dust and generation of exhaust during construction and decommissioning. During operation, worker vehicles traveling to and from the site and those conducting maintenance activities would emit some pollutants. However, there would be a beneficial effect on air quality and climate change with respect to reduced greenhouse gas emissions.

Environmental Resource	No Action Alternative	Proposed Action Alternative
Acoustic Environment	• The noise condition would remain the same as the existing condition resulting in no direct or indirect impacts to acoustic environment.	• Construction and decommissioning activities would result in short-term, minor noise. Operational activities would result in negligible long-term noise impacts.
Biological Resources	• Vegetation, wetland and riparian resources would remain as they are at the present time. • Wildlife utilization of the agricultural fields would continue. • Indirect impacts to fisheries and aquatic resources could result due to the continuing use of the area as agricultural land. • No impacts to special status species would be expected to occur.	• There would be some localized clearing along fence-lines and small wooded areas. Larger forested areas that are within the fenced areas would be avoided. Once the solar panels and associated facilities have been installed, the surrounding area would be seeded with an appropriate herbaceous seed mix of native species. • No permanent wetland impacts are anticipated with potential indirect long-term beneficial impact during operation. Ten wetlands would be temporarily impacted during construction. Impacts during facility decommissioning would be similar to those during construction. There would be no significant direct or indirect impacts to riparian areas or floodplains from construction, operation or decommissioning. • Direct impacts on wildlife would be minor. • Impacts on fisheries and aquatic resources are expected to be minor given the relatively small extent, size, and number of the waterways potentially affected. Impacts would primarily result from construction and decommissioning activities. Adverse impacts during operation of the solar facility would not be expected. Impacts from decommissioning are expected to be similar to those from construction activities. • Construction, operation, and decommissioning may directly or indirectly affect special status species, if present in the Project area. Adverse effects are expected to be undetectable, not measurable, or extremely unlikely to occur, and implementation of the Proposed Action would not jeopardize the continued existence of these species. Designated critical habitats would not be impacted.
Land Resources	• No impacts would be anticipated as the site would be expected to continue to be utilized for agriculture.	• There would be an overall minor, direct, long-term adverse impact on land use. Decommissioning could allow the majority of the Project site to be returned to agricultural or other uses.

Environmental Resource	No Action Alternative	Proposed Action Alternative
Visual Resources	• There would be no impacts from continued agricultural use. Existing views would be expected to remain unchanged.	• Overall, there would be minor temporary direct and indirect impacts to visual resources during the construction and decommissioning. During operation minor visual impacts would continue to occur in the immediate vicinity due to a combination of changes to the visual attributes of the area, and the existing general local character.
Transportation	• There would be no impacts from continued agricultural use.	• There would be no unreasonable congestion or unsafe conditions with respect to transportation on public roads. Direct impacts associated with construction, and decommissioning be minor, and short-term. During operation increased traffic is expected to have negligible impact on the local roadways. There would be no indirect impacts on transportation resources.
Cultural Resources	• Impacts to cultural resources from continued agricultural use would be expected to be minor.	• Of the identified archaeological resources within the Area of Potential Effect, none are recommended as eligible for the National Register of Historic Places. There would be no adverse effect on NRHP-eligible historical structures.
Public Health and Safety	• Human health and safety issues and hazardous materials and waste management would remain in their current state.	• Overall, impacts to human health and safety related to construction and decommissioning of the solar facility would be temporary and minor. No human health or safety hazards would be anticipated during operations. Processes for hazardous materials and waste management would be in place during construction, operation, and decommissioning, and any potential for impacts would be insignificant.
Socioeconomics	• Socioeconomic impacts would remain in their current state.	• Overall, socioeconomic impacts for the operation of the Proposed Action are anticipated to be positive and long-term, although small relative to the total economy of the region.
Environmental Justice	• There are no identified minority or low-income populations within the site or vicinity, there would be no disproportionately high and adverse direct or indirect impacts on minority or low-income populations.	• No minority or low-income populations have been identified in Jefferson County; therefore, there would be no disproportionate impacts to environmental justice communities.

RUS Decisions and Rationale for Decisions

RUS decisions must comply with all relevant state and Federal environmental regulations. The regulations are summarized in Table 1.4-1 in the Final EIS.

a) Decisions

This Record of Decision (ROD) documents findings specific to the proposed action.

Badger State Solar proposes to construct, install, operate, and maintain a 149 MW PV alternating current solar energy generating facility on a site in the Townships of Jefferson and Oakland, west of the City of Jefferson, in Jefferson County, Wisconsin. Project construction would begin in October 2022. Construction would be complete, and the project would be expected to come online by Fall 2023. Badger State Solar has indicated that it will request Federal financing from US for development of the Project.

The Proposed Action would take place on approximately 1,200 acres located on the north and south sides of US Highway 18, approximately 2-miles west of the City of Jefferson. A majority of the Project site would be located west of State Highway 89. The proposed collector substation would be located within the Project site. Laydown areas and internal site roads would be located within the Project boundary.

RUS has made the following decisions:

- Based on an evaluation of the information and impact analyses presented in the Final EIS including the evaluation of all alternatives and in consideration of RUS' environmental policies and procedures (7 CFR 1970), RUS finds that the overall impact analysis and evaluation of reasonable alternatives is consistent with NEPA. In the Final EIS, RUS identifies the preferred alternative as the applicant's Proposed Action, in addition to the proposed measures to minimize impacts. In this ROD, RUS identifies the Final EIS preferred alternative as its selected alternative. This ROD concludes the RUS' environmental review process in accordance with its Environmental Policies and Procedures.
- A review and analysis of the selected alternative's justification, associated engineering studies, and preliminary financial information has led to RUS' concurrence with the selected alternatives' purpose and need.

RUS hereby agrees to the above and should Badger State Solar apply to RUS for financing assistance for the Proposal, the consideration of Badger State Solar's loan application may proceed. The following conditions apply:

1. Badger State Solar will implement the selected alternative as described in this ROD, with further details as described for the preferred alternative in the Final EIS. This includes, but is not limited to, those actions incorporated into the selected alternative to reduce or eliminate impacts, and any mitigation measures that the Final EIS and this ROD state will be implemented.
2. Badger State Solar will obtain and comply with all applicable local, state, and Federal permits required for the construction and operation of the selected alternative.

b) Rationale and Compliance with Legal and Policy Mandates

This section explains how the selected alternative, as defined in the Final EIS and in this ROD, satisfies RUS' statutory, regulatory, and policy mandates.

1) NEPA

In the Final EIS, RUS has fully considered all reasonable alternatives to the Proposed Action and concluded that the selected alternative: construction and operation of the Badger State Solar alternating current array, best meets the purpose and need of the proposed project. The agency has met the requirements of NEPA and agency policies and procedures for public involvement. This has included responses to requests for information from the USFWS, NRCS, USACE, EPA, DOI, and Wisconsin SHPO. The impacts, actions, and mitigation to reduce them are provided in the Final EIS and summarized this ROD. Badger State Solar will be responsible for implementation of these measures with RUS oversight.

2) National Historic Preservation Act

Consultation with the Tribal Historic Preservation officers, State Historic Preservation Office, public and consulting parties is documented in Section 3.9 of the Final EIS and on file at RUS.

3) Endangered Species Act

RUS initiated informal consultation with the USFWS in a letter dated October 15, 2021. On December 21, USFWS concurred with the finding that the Proposed Action may affect but is not likely to adversely affect listed or proposed species or designated critical habitat (Appendix J of the Final EIS). As discussed in the Final EIS, RUS and the applicant have coordinated with the USFWS and state agencies regarding potential impacts to threatened or endangered species.

4) Executive Order 11988, Flood Plain Management

There are no floodplains present within the Project boundary. The closest FEMA floodplain is approximately 0.5 miles northeast of the Project area. There would be no direct or indirect impacts to floodplains from construction, operation and decommissioning of the Proposed Action.

5) Executive Order 11990, Protection of Wetlands

Impacts to wetlands were avoided to the extent practicable. Under the preferred alternative for the proposal, no permanent wetland impacts and 4.46 acres of temporary impacts are anticipated. No wetlands would be permanently converted. There is no practicable alternative to work in the wetlands.

Impacts to wetlands during construction would be permitted under applicable Federal and state requirements and construction would be carried out in accordance with the Project's Clean Water Act Section 404 permit and WDNR Section 401 Water Quality Certification. BMPs (e.g., silt fences, hand-clearing of vegetation where necessary, etc.) would be implemented to minimize soil disturbance in or near wetlands and jurisdictional streams, and BMPs in accordance with requirements of the Project's Sediment and Erosion Control Plan and SWPPP would be followed. According to the final decision of the PSCW, compensatory wetland mitigation would not be required for the Project per Wisconsin Statute 30.025.

RUS Loan Review

This ROD is not a decision on Badger State Solar's loan application and therefore not an approval of the expenditure of Federal funds. The ROD concludes the agency's environmental review process in accordance with NEPA and agency policies and procedures (7 CFR 1970). The ultimate decision as to loan approval depends upon the conclusion of the environmental review process as well as financial and engineering analysis. Issuance of the ROD will allow these reviews to proceed, if Badger State Solar applies to RUS for financing assistance.

Right to Administrative Review (Appeal Process)

This ROD concludes the agency's environmental review process pursuant to the National Environmental Policy Act and the agency's environmental policies and procedures (7 CFR 1970). There are no provisions to appeal this decision. Legal challenges to the ROD may be filed in Federal district court under the Administrative Procedures Act. This ROD is effective on signature.

ANDREW BERKE Digitally signed by ANDREW BERKE
Date: 2022.12.22 10:08:42 -05'00'

Name:_____ Date_____

Andrew Berke
Administrator, Rural Utilities Service

Contact Person

For additional information on this ROD or the Final Environmental Impact Statement, please contact Peter Steinour at BadgerStateSolarEIS@usda.gov, or by mail Attention: Peter Steinour, Mail Stop 1570, Rural Utilities Service, WEP/EES, 1400 Independence Ave., SW, Washington, DC 20250.