

Wild Springs Solar Project

Finding of No Significant Impact and Decision Document

Pennington County, South Dakota



**Western Area
Power Administration**

DOE/EA-2068

September 2021

AGENCY: U.S. Department of Energy (DOE), Western Area Power Administration (WAPA), Upper Great Plains Region (UGP).

ACTION: Determination of Finding of No Significant Impact and selection of Proposed Action for implementation.

SUMMARY: Wild Springs Solar, LLC (Wild Springs Solar) proposes to construct and operate the 128 megawatt (MW) Wild Springs Solar Project (Project) on 1,499 acres of privately-owned land in Pennington County, South Dakota.

In May 2017, Wild Springs Solar submitted an interconnection request to Southwest Power Pool (SPP) to connect the Project to WAPA-UGP's transmission system at WAPA's existing New Underwood Substation. WAPA's decision to enter into an interconnection agreement is considered a federal action under the National Environmental Policy Act (NEPA). Therefore, WAPA prepared an EA (*Wild Springs Solar Project, DOE/EA-2068*) to analyze the impacts of the interconnection.

FOR FURTHER INFORMATION, CONTACT: A copy of all associated NEPA documents is available at the following website:

<https://www.wapa.gov/regions/UGP/Environment/Pages/environment.aspx>.

For additional information, please contact:

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PROPOSED ACTION: WAPA's Proposed Action is to enter into an Interconnection Agreement with SPP and Wild Springs Solar to allow the Project to interconnect to WAPA's existing New Underwood Substation. Additionally, WAPA would make any necessary design or equipment changes to WAPA-owned facilities, as specified in the Interconnection Agreement, to accommodate the interconnection.

ALTERNATIVES: DOE requires that EAs include a "No Action" alternative (10 CFR §1021.321(c)). The EA presented a "No Action" alternative, which assumed the Project would not be built and an interconnection agreement would not be executed.

PUBLIC INVOLVEMENT: Multiple opportunities for public involvement were offered. WAPA hosted a public scoping meeting on March 3, 2020, at the New Underwood Community Center. Approximately 30 members of the public attended the public scoping meeting. The meeting was advertised via letters mailed to private landowners in the vicinity of the Project, stakeholders, and local, state, and federal agencies. Announcements were also published in the Pennington County Courant on February 13, 20, and 27, 2020, prior to the meeting. WAPA

received nine comments during the public scoping comment period, which ran between March 3 and April 4, 2020.

Additionally, WAPA distributed the draft EA for public review and comment between April 27, 2021 and June 1, 2021, by letters to individual landowners and interested agencies, and notices in the local newspapers. WAPA received four comments.

Public notice and other project materials were posted at WAPA’s website, available at the following link: <https://www.wapa.gov/regions/UGP/Environment/Pages/WildSpringsSolar.aspx>. Documentation of public outreach is provided in Appendix D of the EA.

ENVIRONMENTAL IMPACTS: The EA disclosed the potential environmental impacts of the Proposed Action and No Action alternatives. A summary of environmental impacts for each resource area is described in Table 1, below.

Table 1: Summary of Environmental Impacts of Alternatives

| <i>Resource Area</i> | <i>Impacts</i> | |
|-------------------------------------|--|--|
| | <i>Proposed Action Alternative</i> | <i>No Action Alternative</i> |
| Geology and Soils | <p>Temporary soil disturbance expected on 234 acres and permanent disturbance to 48 acres of soils, including 7 acres of Pierre clay with greater than 6 percent slopes (Pierre clay soils are susceptible to erosion by water when found on slopes of greater than 6 percent).</p> <p>Expected types of impacts are increased runoff, compaction, and mixing of soil layers</p> | Continuation of current impacts, such as incremental increases in compaction and erosion due to ongoing livestock grazing and farming practices. |
| Air Quality and Emissions | <p>An increase in emissions is expected during construction, operation, and decommissioning in the form of fugitive dust from traffic, emissions from diesel trucks and construction equipment, and generators used during maintenance activities. Also, there is potential for sulfur hexafluoride-filled leaks from the circuit breakers at the Substation.</p> <p>Cumulatively, these emissions would contribute to other emissions on the local scale but are not expected to occur at a measurable level.</p> | <p>Current emissions are expected to continue at a similar rate.</p> <p>Presently, dust emissions occur annually during farming activities such as haying and harvesting.</p> |
| Greenhouse Gases and Climate Change | <p>In addition to impacts described in the Air Quality and Emissions section, the Project would provide a renewable source of energy that could offset approximately 200,000 metric tons of CO₂ of other greenhouse gas emissions.</p> <p>Changes in climate over the life of the Project are not anticipated to have a material impact on the Project’s operation or production.</p> | <p>Under the No Action Alternative there would be no new or additional impacts to greenhouse gases or climate change.</p> <p>Ongoing emissions and changes in climate are expected to occur.</p> |

| <i>Resource Area</i> | <i>Impacts</i> | |
|-----------------------------------|--|---|
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| Threatened and Endangered Species | Due to the low likelihood or frequency of federally listed species presence and lack of suitable habitat in the Project Boundary, no impacts on federally threatened and endangered species are anticipated. Based on the following information, WAPA has determined the Proposed Action would have “no effect” on federally listed threatened and endangered species. | |
| Land Use and Land Cover | <p>In total, the Project would impact roughly 1,108 acres of vegetation: 815 acres of herbaceous vegetation (includes pasture, hay, and fallow grassland areas), 288 acres of dryland cultivated crops (alfalfa, hay, and wheat), 4 acres of developed land use (mostly roads), and less than 1 acre of shrub/scrub.</p> <p>Impacts such as trampling, mowing, and potential introduction of invasive species are expected as a result of constructing the following facilities:</p> <ul style="list-style-type: none"> • The solar array accounts for 1,037 acres of disturbance: 280 acres of cultivated cropland, 755 acres of herbaceous, and 2 acres of developed. • Access roads account for roughly 40 acres of disturbance: 32 acres of herbaceous and 8 acres of cultivated crops. • Collection lines account for nearly 10 acres (8.5 acres of herbaceous) • Approximately 19 acres of herbaceous land cover that will be used as a laydown area • And less than 1 acre each for the remaining facilities, primarily herbaceous land cover. <p>After construction, Wild Springs Solar would revegetate 1,061 acres of disturbed areas at the solar arrays, laydown areas, and collection lines, per the Project’s Vegetation Management Plan (Appendix B of the EA).</p> <p>Roughly 47 acres total (7.8 acres of cultivated cropland, 39 acres of herbaceous land, and 0.5 acres of developed land) would be permanently converted to developed land with impervious surfaces (i.e., the substation and O&M building, inverter skids, parking areas, and access roads).</p> <p>A Farmland Protection Policy Act review was completed and determined the Project would not impact prime or unique farmlands.</p> | There would be no changes to land use. It is expected that cattle grazing and farming would continue to occur in and around the area. |

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|----------------------|--|--|
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| Water Resources | <p>All water resources in the area could be impacted by an accidental release of pollutants, such as fuel spills and/or runoff.</p> <p>The Project design avoids three of the five intermittent streams that bisect the Project Boundary. Of the two waterways that could not be avoided:</p> <ul style="list-style-type: none"> • One would be crossed by two access roads in the northwestern portion of the Project Footprint. Wild Springs Solar would utilize low water crossings and culverts to reduce impacts. • The second waterway is along 230th Street in the southeastern portion of the Project Footprint. Wild Springs would either bore collection lines beneath the waterway or utilize a Nationwide Permit, which is necessary for work in streams, wetlands, and other waters of the United States under Section 404 of the CWA. <p>Wild Springs would create a 0.6-acre stormwater basin for stormwater runoff mitigation.</p> <p>The Project Footprint overlaps with 82 acres of 100-year floodplain. Initial assessments suggest that the floodplain extents are significantly less than indicated by FEMA’s effective mapping, and that adverse upstream impacts are very unlikely.</p> | No new impacts to water resources are anticipated |
| Cultural Resources | <p>WAPA determined the 57 TCP resources within the project APE are “Eligible” for listing in the National Register of Historic Places. The project will have no effect on these TCP resources as they will be avoided by construction activities and protected with appropriate buffers. WAPA made a finding of “No Historic Properties Affected” for this undertaking. SHPO concurrence was received on June 29, 2021.</p> | No new impacts to cultural resources are expected. |

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|----------------------|---|--|
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| Fish and Wildlife | <p>Project construction, operations, and decommissioning activities would result in potential for impacts to wildlife, including disturbance, mortality, and habitat modification, fragmentation, or removal. The solar array, access road, and fence components of the project have the highest potential for ecological impacts.</p> <p>Operations activities are expected to have relatively benign disturbance impacts on wildlife individuals, but the increase in vehicle traffic for maintenance over the 30-year life of the Project will divert, deter, or kill some animals. There is the potential for direct avian mortality at solar facilities due to collision with PV panels.</p> <p>Wildlife habitat fragmentation would result from the permanent 7-foot high perimeter fence and solar arrays. The Project would decrease productivity of grassland and shrubland by 815 acres, which would cause further fragmentation of grassland and migratory bird habitat during construction, operations, and decommissioning.</p> <p>The PV panels would shade plants under the panels, resulting in habitat modification or removal of approximately 1,037 acres. The wildlife community using the areas and PV panel array areas may change after the Project begins operations, as the habitat is altered and the quality is reduced, but the area is expected to still provide habitat for some groups of wildlife, especially those somewhat adapted to a degree of fragmentation and current land uses.</p> <p>Approximately 96 percent of the disturbed area would be revegetated with a rangeland seed mix, whereas 47.3 acres of habitat (of which nearly 39 acres is herbaceous) in the Project Footprint would be completely removed.</p> | <p>No new impacts to wildlife are expected as a result of the No Action Alternative, although continued wildlife habitat loss, habitat fragmentation, and human disturbance is expected.</p> |

| <i>Resource Area</i> | <i>Impacts</i> | |
|--|--|--|
| | <i>Proposed Action Alternative</i> | <i>No Action Alternative</i> |
| Socioeconomic Conditions and Environmental Justice | <p>The Project would provide a supplementary source of income for the participating rural landowners and farmers. Wild Springs Solar would also establish the Wild Springs Education Fund, to which Wild Springs Solar would contribute \$25,000 annually for the first 20 years of Project operation to the New Underwood school district.</p> <p>The Project would likely cause beneficial short-term and long-term socioeconomic impacts as a result of increased employment opportunities and increases in revenue through increased demand for lodging, food services, fuel, transportation and general supplies.</p> <p>There is no indication that any minority or low-income population is concentrated in any one area in the Project vicinity, or that the Project will be placed near an area occupied primarily by any minority population. No disproportionately high and adverse human health or environmental effects are expected.</p> | There would be no impacts on the socioeconomic conditions of Pennington County; population and employment rates would be expected to stay the same |
| Visual Resources | <p>The Project would convert approximately 1,103 acres of herbaceous land and cultivated crops to a solar facility with visual characteristics different from the surrounding rural landscape. The solar facility would be visible from adjacent roadways and parcels, but given its relatively low profile, it would not be visible from long distances.</p> <p>The combination of topography in the area and low-profile arrays is such that most of the Project would not be seen from long distances. The gen-tie transmission line would be visible from longer distances but would be likely blend with the other existing transmission lines near the New Underwood substation. Visual impacts from the Project would be long-term and last for the duration of the Project.</p> | There would be no new impacts to visual resources. |

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| Roads and Traffic | <p>Increased construction traffic may be perceptible to area residents, but the slight increase in volume would not be expected to affect traffic function. Slow-moving construction vehicles may also cause delays on smaller roads, similar to the impact of farm equipment during planting or harvest.</p> <p>After construction is complete, traffic impacts during the operations phase of the Project would be negligible. A small maintenance crew driving through the area in pickup trucks on a regular basis would monitor and maintain the facilities as needed, but traffic function would not be impacted as a result.</p> | There would be no new or additional impacts to roads and traffic. |
| Cumulative Impacts | <p>Reasonably foreseeable actions include potential development of additional solar power facilities in Pennington County and within the western half of the state. However, to date, development of utility scale solar projects in this area remains limited. There are no other known major projects in the area that should be evaluated in conjunction with this Project for cumulative effects at this time.</p> <p>The Project would incrementally contribute to impacts on various resources within the region. In particular, the Project would contribute to ongoing cumulative impacts to fish and wildlife (such as habitat fragmentation, habitat conversion, and bird fatalities), the conversion of land from native uses to developed uses, and minor changes in the visual landscape.</p> <p>Considering the impact avoidance and minimization commitments, adverse cumulative impacts are not expected to be significant on a local, regional, or national scale.</p> | Continuation of present and future activities and associated impacts, at existing intensity. |

ENVIRONMENTAL COMMITMENTS: Environmental commitments have been embedded as a required component of the Proposed Action alternative and are listed throughout Chapter 3 of the EA.

FINDING: WAPA evaluated the potential environmental impacts at a variety of contexts, including national, regional, and local scales and intensities. WAPA identified no significant impacts to environmental resources or the human environment, either individually or cumulatively with other actions in the general area, which would result from the Proposed Action or No Action alternatives.

The principal reason for the lack of significant environmental impacts is the use of avoidance measures and environmental commitments as a required component of the project. Additionally:

- Per DOE’s requirements regarding Compliance with Floodplain and Wetland Environmental Review (10 CFR Part 1022), the EA included a floodplain assessment and determined the Proposed Action would overlap with flood zone areas, as currently mapped. Wild Springs submitted a Letter of Map Revision (LOMR) application on November 23, 2020. If the mapping revision is granted, a Floodplain Permit would not be required. Alternatively, if the mapping revision is not granted, Wild Springs would obtain a Floodplain Permit through Pennington County. Unauthorized impacts to flood zones will not occur.
- The impacts of solar facilities on birds (particularly, bird fatalities as a result of collisions) is not well studied. The Proposed Action’s post-construction monitoring will contribute to the body of knowledge regarding the severity of solar impacts. The anticipated effects are not highly uncertain nor highly controversial in the available literature.
- The Project itself is typical of solar generation projects across the nation. It is not unique or unusual and does not establish a precedent for future actions.
- The interconnection request is one of several permits required for the Project; the Project received a Conditional Use Permit from Pennington County in August 2020 and a Facility Permit from the South Dakota Public Utilities Commission (SD PUC) in December 2020. Wild Springs Solar agrees to implement the additional 38 conditions, called Permit Conditions, as part of the SD PUC permitting process.
- Consultation with SHPO has been completed in accordance with Section 106 of the National Historic Preservation Act and concurrence was received on WAPA’s determination of “no adverse effect.”
- Wild Springs Solar is developing an Unanticipated Discovery Plan (UDP) that will be finalized and submitted to WAPA prior to construction. The UDP outlined the procedures for inadvertent discovery of cultural resources or human remains during construction or operation of the Project. The UDP complies with the Native American Graves Protection and Repatriation Act, the Archaeological Resources Protection Act of 1979 (as amended), and all other pertinent legislation and implementing regulations. Should a discovery occur, work would be halted in the immediate area and the location secured and protected. WAPA shall be notified of the inadvertent discovery and shall, in turn, notify the SHPO and any Tribal Historic Preservation Offices (THPO) whom have expressed interest in the Project.
- Consultation with the USFWS was completed in accordance with Section 7 of the Endangered Species Act and WAPA notified USFWS of our determinations of “no effect.”
- Wild Springs Solar is coordinating with the closest adjacent residence to minimize aesthetic impacts and will have an agreement in place prior to construction. Mitigation could include installation of a privacy fence or vegetative screening and will be decided by the landowner.



- The Project does not violate any known federal, state, local or tribal law or requirement imposed for the protection of the environment. State, local, and tribal interests were given the opportunity to participate in the environmental analysis process.

WAPA has found that neither alternative constitutes a major Federal action significantly affecting the quality of the human environment. As a result, a FONSI is warranted and an Environmental Impact Statement will not be prepared. This FONSI was prepared in accordance with *Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 CFR §1508.13) and the DOE NEPA Implementing Procedures (10 CFR §1021.322).

DECISION RECORD: WAPA has selected the Proposed Action Alternative, including all environmental commitments and minimization measures described in DOE/EA-2068, for implementation.

Issued in Billings, Montana on September 29, 2021.

Lloyd A. Linke

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Senior Vice President and UGP Regional Manager

