

**FINAL ENVIRONMENTAL ASSESSMENT**  
**Invenergy Solar Development, LLC**  
**Luning Solar Energy Project**

**Finding of No Significant Impacts**

DOI-BLM-NV-C010-2015-0020-EA

U.S. Department of the Interior  
Bureau of Land Management  
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It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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## **BACKGROUND**

On July 31, 2013 the Bureau of Land Management (BLM), Carson City District (CCD), Stillwater Field Office (SFO) received a solar energy right-of-way (ROW) SF-299 application from Invenergy Solar Development, LLC (Invenergy Solar) to construct, operate, and decommission a 50 megawatt (MW) utility-scale PV solar generation facility on approximately 560 acres of BLM-administered land in Mineral County, Nevada. The project would use ground-mounted PV panels with single axis trackers which rotate to follow the sun. Associated with the PV panels would be an electrical collection system to connect power inverters and transformers to a substation within the solar facility (project substation). A control house next to the project substation would house protective relays and communications infrastructure. A 120 kilovolt (kV) generation-tie transmission line (gen-tie line) would connect the project substation to the existing Table Mountain substation, owned by NV Energy.

Two 40-acre mineral material sites, with access roads, are proposed as potential sources for aggregate and borrow material; the two sites could be designated as community pits for future use by Mineral County, private citizens, and other users. Commercial operation of the solar facility is expected to last for 30 years.

The SFO reviewed the ROW application from Invenergy Solar, beginning in September 2013, for conformance with the variance area policies identified in the Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States (Solar PEIS) which is available to the public on the webpage <http://solareis.anl.gov/>. The Approved Resource Management Plan Amendments/Record of Decision (ROD) for the Solar PEIS was published on October 24, 2012.

A preliminary meeting with the applicant was held to discuss the status of BLM land use planning in the area, potential land use and siting constraints, potential environmental issues in the area, cost recovery requirements, application requirements, project description requirements, associated timelines, and other topics affecting the proposal.

Initial review of the proposal by the SFO interdisciplinary team (ID team) found the location does not have major resource conflicts or other issues which would make the project infeasible. The area has adequate direct normal solar insolation levels to support a utility-scale solar facility, according to GIS data provided by the National Renewable Laboratory. The location is also near an existing transmission line and substation; new transmission line construction to connect to the electrical grid would be minimal. The proposed location would not conflict with landscape conservation strategies, nor would there be conflict with landscape protection, conservation, or restoration objectives established in documents such as the Carson City CRMP.

The BLM contacted several Federal, state, local, and tribal agencies during the preparation of the Luning Solar Energy Project EA to gain their input on the new application for the Luning Solar Energy Project. The SFO Field Manager attended the Mineral County Board of Commissioners meeting on February 19, 2014 to notify the board of the new proposal. The SFO Field Manager was included in the agenda for the board meeting, which was adequately noticed by the Mineral County Board of Commissioners. Neither the board members nor members of the public expressed issues or resource concerns associated with the LSEP during the meeting. As a part of

the variance review, the SFO also considered public comments received during the preparation of the previous EA. The public had opportunities to comment on the previous EA at two board meetings and during a 30-day public review period.

Comments were received from the Nevada Division of State Lands (NDSL) as a result of this notice and pertained to managing facility lighting to reduce effects from stray lights on the surrounding landscape at night. Internal review, coordination with other government agencies, and public outreach did not indicate a need to recommend changes to the proposal during the variance review. The location does have natural resource values which need to be considered; none were at a level to suggest the LSEP should be rejected at the variance review stage without completing the EA process.

Following review of the variance process documentation submitted by the SFO, the BLM Director gave concurrence for the SFO to process the ROW application from Invenergy Solar on July 14, 2014. The variance review documents are attached in Appendix A of the EA.

During internal review of the draft EA, the BLM Washington D.C. Office also suggested changes and comments. The comments received were based on the need for off-site mitigation. This mitigation has been included in Chapter 3 of the EA as mitigation for noxious weeds and vegetation. Additionally, based on public comments received, the following has been proposed by both Invenergy Solar and The Wilderness Society regarding this off-site mitigation as an applicant commitment (refer to Appendix E: Response to Comments):

- Invenergy Solar and TWS agree that based on the impacts analyzed in the EA, an appropriate off-site mitigation and monitoring contribution is an amount of, but not more than, \$140,000 (\$250 per acre for 560 acres) from Invenergy Solar. This cost per acre was determined through discussions between Invenergy Solar and the local conservation district. This contribution would cover the funding of specific off-site mitigation projects and any costs for ongoing monitoring for effectiveness of the mitigation actions.

### **Land Use Plan Conformance**

The Proposed Action is in conformance with the Carson City Consolidated Resource Management Plan Record of Decision (ROD) approved in May 2001, even though it is not specifically provided for, because it is clearly consistent with Administrative Actions listed on page ROW-4 of the Right-of-way Corridors section and would comply with the Standard Operating Procedures listed on pages ROW-4 through ROW-6. Specifically:

- All applicants for right-of-way grants, whether or not they are within corridors, are subject to standard approval procedures as outlined in the right-of-way regulations (43 Code of Federal Regulations (CFR) 2802). These procedures include: 1) Preparation of an environmental assessment in accordance with the National Environmental policy Act of 1969, 2) A determination of compliance of the applicants proposed plan with applicable federal and state laws, 3) Consultation with federal, state, and local agencies, and 4) Any other action necessary to fully evaluate and make a decision to approve or deny the application and prescribe suitable terms and conditions for the grant or permit.

Consultation with the public, including adjacent landowners, will occur throughout the process.

In addition, the Proposed Action and Alternatives described below are in conformance with Visual Resources (VRM) section of the Carson City CRMP on pages VRM-1 through 4. Specifically:

- Interim visual management objectives are established where a project is proposed and there are no RMP (or MFP) approved VRM objectives. These objectives are developed using the guidelines in Manual Section 8410 and must conform to the land use allocations set forth in the RMP which covers the project area. The establishment of interim VRM objectives will not require a plan amendment unless the project itself requires one.

Finally, the Proposed Action and alternatives are in conformance with the saleable minerals related decisions in the Minerals and Energy section of the Carson City CRMP on pages MIN-1 through 5. Specifically:

- Administrative Actions
  1. Continue to provide mineral material commodities to the using public, following these general criteria:
    - A. Avoid duplication of pits within the same general area.
    - B. Examine hauling distances and place sites according to acceptable VRM classification where possible.
    - C. Use existing sites to the greatest extent possible.
    - D. For major transportation ROWs, place sites a minimum of 10 miles apart.
    - E. Determine life expectancy of sites and set rehabilitation requirements in advance.
- Standard Operating Procedures  
Salable Minerals
  1. Each mineral material disposal is a discretionary action with appropriate terms and conditions implemented to guard against undue or unnecessary degradation of existing resources.

## **Finding**

This finding and conclusion is based on the consideration of the Council on Environmental Quality's criteria for significance (40 CFR 1508.27), both with regard to the context and the intensity of impacts described in the EA.

Based upon the analysis in the EA# DOI-BLM-NV-C010-2015-0020-EA *Luning Solar Energy Project Environmental Assessment*, it is my determination that implementation of the Proposed Action will not have significant environmental impacts and that the Proposed Action is in conformance with the CRMP adopted in 2001. I have determined that the Proposed Action is not

a major federal action, and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. Therefore, an environmental impact statement is not necessary and will not be prepared for the Proposed Action.

### **Context:**

The Luning Solar Energy Project (LSEP) would be developed on approximately 560 acres of public lands administered by the BLM's SFO within Mineral County, Nevada. The proposed location is approximately 3 miles north of Luning, Nevada, a small, unincorporated town on U.S. Highway 95 between Hawthorne and Tonopah, Nevada. The LSEP is located south and west of the Gabbs Valley Range in the northern portion of Soda Spring Valley. The Soda Spring Valley begins at the divide between Walker Lake in the north, running east-southeast between the Gillis Range to the north and the Garfield Hills to the south, then turns to the south near Luning, with the Gabbs Valley Range and Pilot Mountain to the east, ending at the Rhodes Salt Marsh. The surface elevation over the LSEP ranges from approximately 4,600 near the Table Mountain substation to 4,700 feet near the northern edge of the PV field.

The LSEP would be constructed on the lower slopes of the alluvial fan leading up to the Gabbs Valley Range near Calvada Summit and Rhyolite Pass. The area is a high-desert environment characterized by arid to semiarid conditions, bright sunshine, low annual precipitation, and wide daily ranges in temperature (Luning Solar EA).

The solar facility would be constructed on approximately 560 acres in section 15, S $\frac{1}{2}$ SW $\frac{1}{4}$ ; section 16, S $\frac{1}{2}$ S $\frac{1}{2}$ ; section 21, N $\frac{1}{2}$ N $\frac{1}{2}$ ; and section 22, N $\frac{1}{2}$ N $\frac{1}{2}$ , of Township 8 North, Range 34 East, Mount Diablo Meridian.

Material Site 1 is approximately 1 mile north of the PV field in the E $\frac{1}{2}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  of section 10, and the W $\frac{1}{2}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  of section 11, T. 8 N., R. 34 E., MDM. The site is on the east side of State Highway 361, directly north of an existing Nevada Department of Transportation (NDOT) material site ROW (CC-021185). The site would be accessed from the highway using a new road to avoid the NDOT material site.

Material Site 2 is located approximately 4 miles west-northwest of Luning in the SW $\frac{1}{4}$ NE $\frac{1}{4}$  of section 25, T. 8 N., R. 33 E., MDM. The site is on the south side of U.S. Highway 95, directly east of another existing NDOT material site ROW (N-38418). The site would be accessed from the highway using a new access road to avoid the NDOT material site.

### **Intensity:**

The following discussion is based on the relevant factors that should be considered in evaluating intensity as described in 40 CFR 1508.27:

#### **1. Impacts that may be both beneficial and adverse.**

All resource values have been evaluated for direct, indirect and cumulative impacts, as shown in Chapter 3 of the EA. None of the direct, indirect or cumulative impacts associated with the Proposed Action (as analyzed in Chapter 3 of the EA) are significant, individually or combined. The EA evaluated both beneficial and adverse impacts of the Proposed Action for the proposed 560 acre Luning Solar Energy Project in Mineral County, Nevada.

All impacts, beneficial and adverse, to mineral resources; noxious, invasive and non-native species; socioeconomics; soil resources; vegetation; visual resources; water quality (surface and ground); migratory birds; special status species (including BLM sensitive species); and general wildlife were analyzed in detail in chapter 3 of the EA. With the implementation of the applicant committed mitigation measures and BLM proposed mitigation measures (identified in Chapter 3, Section 3.17 of the EA), impacts from implementation of the Proposed Action would be further reduced. Additionally, based on public comments received, the following was proposed by both Invenergy Solar and The Wilderness Society regarding this off-site mitigation as an applicant commitment (refer to Appendix E: Response to Comments) and will be applicable to this project:

- Invenergy Solar and TWS agree that based on the impacts analyzed in the EA, an appropriate off-site mitigation and monitoring contribution is an amount of, but not more than, \$140,000 (\$250 per acre for 560 acres) from Invenergy Solar. This cost per acre was determined through discussions between Invenergy Solar and the local conservation district. This contribution would cover the funding of specific off-site mitigation projects and any costs for ongoing monitoring for effectiveness of the mitigation actions.

All of the impacts and identified mitigation measures are described and analyzed in detail in Chapter 3 of the EA and the Decision Record.

## **2. The degree to which the proposed action affects public health or safety.**

Effects to public health and safety would be negligible. Invenergy Solar would receive all appropriate permits from permitting agencies and follow all requirements of these permits. There would be minimal impacts to air quality, mainly in the form of fugitive dust from traveling on dirt roads and construction activities, and no emissions from the project itself. None of these would exceed National Air Ambient Quality Standards. Further, the applicant has committed to applying water to disturbed areas as needed to reduce dust and also posting speed limit signs to reduce dust and promote safety.

All noxious and invasive weed treatments would be controlled through the use of BLM-approved biological, cultural/mechanical and chemical controls (when applicable several of these methods could be combined). Any herbicide use and application would be in conformance with herbicide labels' handling and application instructions and the Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (EIS) and Record of Decision (ROD) (BLM 2007).

## **3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.**

The BLM Interdisciplinary Team (ID) scoped the Proposed Action internally to determine if there would be any impacts to any unique characteristics of the geographic area. There are no park lands, prime farmlands, wetlands, wild and scenic rivers designated Wilderness Areas/Wilderness Study Areas (WSAs) or ecologically critical areas in the vicinity or proposed sale areas.

Class III cultural resources inventories were conducted in the PV field and gen-tie line areas (an area of potential effect from these proposed activities resulted in approximately 624 acres of survey) by Kautz Environmental Consultants, Inc. in June and July of 2008 and April of 2009. The Class III cultural resources inventories conducted by KEC of the 624 acre block resulted in the recordation of 19 isolated finds and a total of 11 archaeological sites. It has been recommended that the 19 isolated finds recorded during the present survey are not considered eligible for inclusion in the National Register of Historic Places (NRHP) per the State Protocol Agreement between the BLM Nevada and the Nevada State Historic Preservation Act 2009, Appendix E. A. (No Properties). Of the 11 archaeological sites recorded, all are historic in age. Ten of the 11 sites recorded are recommended as not eligible for nomination to the NRHP. Therefore, these isolated finds and the 10 sites require no further management consideration prior to implementation of the Proposed Action. The eleventh site is the Wadsworth to Columbus Freight Road, which is recommended eligible under Criterion A. However, the segment located within this APE has been recommended as a non-contributing element. As such, this site requires no further management consideration prior to the implementation of the LSEP.

Additional class III cultural resources surveys were conducted in the proposed material site locations in October and December 2014 by the BLM CCDO resource specialists. The inventories resulted in the recordation of six non-eligible isolated finds and no sites. No historic properties were identified during the surveys.

Native American consultation with the Tribes is ongoing, but no traditional cultural properties or sacred sites have been identified within the LSEP to date. Ongoing consultation could result in new information and additional mitigation measures. If previously unidentified and/or undiscovered gravesites, traditional cultural properties, artifacts, or similar occur, Invenergy Solar would implement the stipulations and environmental protection measures described in the EA. These measures and stipulations include the procedures set forth in 43 CFR Part 10, Native American Graves Protection and Repatriation Regulations.

#### **4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.**

No unresolved issues were identified during the scoping period or variance process reviews. Only one comment was received regarding dark sky lighting practices during the scoping period, and one additional comment regarding off-site mitigation of noxious and invasive weed treatments by internal BLM during the draft EA review process were received, refer to Chapter 3, Section 3.7 Noxious, Invasive, and Non-native Species in the EA. The effects analysis in Chapter 3 of the EA also demonstrates that there were no unresolved issues that would suggest this project or its impacts would be highly controversial.

The EA and draft FONSI were made available for public review and comment from May 8, 2015 through June 8, 2015. Comment letters were received from eight State agencies and non-governmental organizations during this comment period. Minor non-substantive changes were made to the EA as a result of these comments; most changes were for clarification purposes. Refer to Appendix E:: Response to Comments in the Final EA.

**5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.**

The analysis provided in Chapter 3 of the EA does not indicate that this action would involve any unique or unknown risks. Relevant components of the human environment which would be either affected or potentially affected by the Proposed Action and other alternatives were addressed through the effects analysis in Chapter 3 of the EA.

**6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.**

Current uses of the land surrounding the LSEP are expected to remain the same for the foreseeable future and it is unlikely that increases in these or other land uses would occur. The proposed action will not establish a precedent for future actions with significant effects or represent a decision about a future consideration. Completion of this EA does not establish a precedent for other solar energy projects nor does it authorize other solar projects in this area that are outside the scope of the EA. Any future projects within the areas that are outside of the scope of EA# DOI-BLM-NV-C010-2015-0020-EA, or in surrounding areas will be analyzed on their own merits, independent of the actions currently proposed.

**7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.**

Direct and indirect impacts of the Proposed Action were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the EA. None of the environmental impacts discussed in Chapter 3 of this EA are considered significant. Past, present and reasonably foreseeable future actions have been considered for cumulative impacts and the analysis within Chapter 3 of the EA concludes that the cumulative impacts would not incrementally contribute to significant impacts. In addition, for any actions that might be proposed in the future, further environmental analysis, including assessment of cumulative impacts, would be required.

**8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP or may cause loss or destruction of significant scientific, cultural, or historical resources.**

The Proposed Action would not adversely affect districts, sites, highways, structures or objects listed in or eligible for listing in the National Register of Historic Places as discussed in the reports prepared for the Class III cultural resources inventories that were conducted in the area of potential effects (approximately 624 acres), as described in Chapter 3 of the EA. The Proposed Action has no potential to adversely affect significant scientific, cultural, or historical resources.

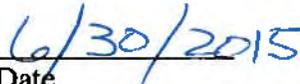
**9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the ESA of 1973.**

After consulting with the BLM wildlife biologist and the USFWS website for Nevada, there are no federally listed threatened or endangered plants or animal species or their habitat located within the project area ([http://www.fws.gov/nevada/protected\\_species/species\\_by\\_county.html](http://www.fws.gov/nevada/protected_species/species_by_county.html)). The Proposed Action would not adversely affect any federally listed species or their habitat under the Endangered Species Act (ESA).

**10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.**

The Proposed Action is in compliance with the Carson City Consolidated Resource Management Plan Record of Decision (ROD) approved in May 2001. The Proposed Action is consistent with Statutes, regulations and policies of neighboring local, County, State, Tribal governments and other Federal agencies. The Proposed Action does not violate or threaten to violate any federal, State, or local law or requirement imposed for the protection of the environment.

  
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Teresa J. Knutson  
Field Manager  
Stillwater Field Office

  
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Date