

Luning Solar Energy Project (NVN-092243)
Solar Variance Area Right-of-way Application Review

Invenergy Solar Development, LLC, (Invenergy) is proposing the development and operation of a photovoltaic (PV) solar power plant with a planned generating capacity of up to 50 megawatts (MW) name-plate capacity.

The project would be located on approximately 560 acres of public land administered by the Bureau of Land Management (BLM), Carson City District Office (CCDO), Stillwater Field Office (SFO), in Mineral County, Nevada. The site is approximately 25 miles east of Hawthorne, Nevada and approximately 95 miles southeast of Carson City, Nevada. The project would require construction of a 1 mile high-voltage transmission line connecting the project to the Table Mountain substation. The facility would be expected to operate for 30+ years.

Invenergy filed a right-of-way (ROW) application (NVN-092243) with the SFO on July 31, 2013, for the Luning Solar Energy Project (LSEP). The SFO previously completed an EA and issued a ROW grant for a similar solar project in the same location in July 2009. The ROW for the previous project was voluntarily relinquished by the holder in January 2013. The new application from Invenergy is identical to the previous ROW application analyzed in the EA in terms of the project area acreage and the route of the power line to connect to the Table Mountain substation.

The preliminary meetings with the BLM, as required by the variance area policy, were held in early July 2013 and September 2013. The company filed a comprehensive plan of development (POD) for the proposed project and a cost recovery agreement was signed on December 17, 2013.

The public meeting required by the variance area policy was held on February 19, 2014 in Hawthorne, Nevada, including the opportunity for the public to comment. The SFO Field Manager decided to complete the public meeting requirement as a part of the monthly meeting of the Mineral County Board of Commissioners. Years of experience processing ROW applications and other land management activities have shown the Mineral County Board meetings to be the most effective way to deliver information to the residents of Mineral County.

As of the 2010 census, Mineral County, Nevada, had a population of 4,772 people, in five communities (Hawthorne, Luning, Mina, Schurz, and Walker Lake) spread over 3,752.84 square miles (1.3 people per square mile). Board members are in close contact with community leaders and maintain an extensive email contact list to notify concerned residents of upcoming agenda items. Over 130 private citizen, company, government, and tribal email addresses were included in the notification email sent by Mineral County on February 13, 2014. The agenda and meeting minutes are available on the Mineral County website; the agenda describes the other locations and media used to notify the public of the meeting.

The following factors were considered in determining whether the LSEP should be approved for additional processing, as identified in the Solar PEIS ROD, Appendix B.5.3:

1. The availability of lands in a SEZ that could meet the applicant's needs, including adequate access to available transmission.

The Solar PEIS designated seven SEZs in Nevada. The Millers SEZ is the closest to the proposed LSEP. The Millers SEZ is approximately 45 miles to the southeast, near Tonopah, Nevada.

Invenergy selected the proposed location for the LSEP largely based on the minimal resource conflicts identified in the 2009 EA. The preliminary meetings with the BLM indicated the BLM would still be able to come to a Finding of No Significant Impact (FONSI) after completing a new EA for the LSEP. The project is designed to remain within the same footprint previously analyzed. Sierra Pacific Power Company (NV Energy), which owns the existing 120kV transmission line and Table Mountain substation near the proposed LSEP, completed a System Impact Study in October 2010 and a Facility Study in November 2011 which showed the previous project, also proposed to generate up to 50 MW of solar energy, would have no significant negative impacts from connecting at the Table Mountain substation. A Large Generator Interconnect Agreement was drafted for the previous ROW holder in 2012. NV Energy is currently completing the same studies for the Invenergy proposal.

2. Documentation that the proposed project will be in conformance with decisions in current land use plans (e.g., visual resource management class designations and seasonal restrictions) or, if necessary, represents an acceptable proposal for a land use plan amendment.

The Carson City Consolidated Resource Management Plan (CRMP) (2001) is the current land use plan (LUP) covering the location of the proposed LSEP. The proposal is in general conformance with the LUP, 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 Corridor section and would comply with the Standard Operating Procedures listed on pages ROW-4 through ROW-6.

The location of the proposed LSEP does not have any special designations, such as ACECs, under the CRMP. The CRMP showed the entirety of Mineral County, including the location of the proposed LSEP, as a desert mountain goat area on one of the GIS maps included in the document. The text of the CRMP does not provide an explanation of what a desert mountain goat area is. Both the BLM biologist for the SFO and the Nevada Department of Wildlife (NDOW) say there are no mountain goats in the area. No seasonal restrictions for wildlife species are listed in the document.

The CRMP did not designate a VRM class for the location of the proposed LSEP. The VRI inventory completed for the RMP revision, dated December 16, 2011, lists the area as VRI Class IV. The VRI designation is expected to be the same for the VRM class once the CRMP is revised.

- 3. Documentation that the proposed project will be consistent with priority conservation, restoration, and/or adaptation objectives in best available landscape-scale information (e.g., landscape conservation cooperatives, rapid ecological assessments, and state-level crucial habitat assessment tools).**

The proposed location for the LSEP does not have any priority conservation, restoration, or adaptation objectives that would affect the proposal.

- 4. Documentation that the proposed project can meet applicable programmatic design features adopted in the Solar PEIS.**

The applicant will be required to meet the design features in Appendix A, Section A.4 of the Solar PEIS, as necessary.

- 5. Documentation that the applicant has coordinated with state and local (county and/or municipal) governments, including consideration of consistency with officially adopted plans and policies (e.g., comprehensive land use plans, open space plans, and conservation plans) and permit requirements (e.g., special use permits).**

The applicant has met with Mineral County officials on February 13, 2014 to present the project and determine which local permits would be required. The County is supportive of the project and has expressed their desire to issue a SUP based on the timing needs of the company. No other officially adopted plans or policies are known to affect the location of the proposed LSEP.

- 6. Documentation of the financial and technical capability of the applicant, including but not limited to: (i) the international or domestic experience with solar projects on federal or nonfederal lands; and (ii) sufficient capitalization to carry out development, monitoring, and decommissioning, including the preliminary study phase of the project and the environmental review and clearance process.**

Invenergy Solar is a subsidiary of Invenergy LLC, an international power generation company with projects in North America and Europe, mainly utilizing wind and natural gas resources. Invenergy LLC currently has one 20 MW solar facility in operation in Illinois and two more 10 MW facilities being constructed in Ontario, Canada. Further evidence of financial capability would be demonstrated through the completion of baseline surveys, paying for the BLM to complete a NEPA document, and providing a bond to cover the project.

- 7. Documentation that the proposed project is in an area with low or comparatively low resource conflicts and where conflicts can be resolved (as demonstrated through many of the factors that follow).**

The SFO completed an EA in July 2009 for a similar project in the same location. No major issues were identified and a Finding of No Significant Impact (FONSI) was reached. Current review of the proposal indicates the same outcome would be reached.

The LSEP would be located in foraging habitat for golden eagles and other raptors. The nest survey data available to the SFO during the initial review of the LSEP proposal did not show a large concentration of golden eagles or other raptors in nearby nesting habitat. The survey data was several years old, therefore new surveys for golden eagles and raptors would be required so effects to current populations can be analyzed during processing of the ROW application.

In addition, some neo-tropical migratory bird and bat species could forage and/or fly by the LSEP location. The BLM would suggest a Bird and Bat Conservation Strategy (BBCS) be developed to address potential impacts to neo-tropical birds and bats; a BBCS is not currently required for projects such as the LSEP.

8. Documentation that the proposed project will minimize the need to build new roads.

Nevada State Highway 361 runs through the proposed location of the LSEP. The Table Mountain substation has existing road access. Any new roads would be strictly for installing and maintaining solar panel arrays and related infrastructures.

9. Documentation that the proposed project will meet one or more of the following transmission sub-criteria: (1) transmission with existing capacity and substations is already available; (2) lands are adjacent to designated transmission corridors; (3) only incremental transmission is needed (e.g., re-conductoring or network upgrades and development of substations); or (4) new transmission upgrades or additions to serve the area have been permitted or are reasonably expected to be permitted in time to serve the generation project.

The proposed LSEP will meet the first two transmission subcriteria:

- Transmission with existing capacity and a substation is already available;
- The project site is adjacent to a designated transmission corridor and within 1 mile of the Table Mountain substation.

The energy generated by the proposed solar project would be delivered to the Table Mountain substation through a new one mile, 120 kV overhead gen-tie power line. The gen-tie line would be within the route analyzed in the 2009 EA and approved in the previous ROW grant.

10. Documentation that the proposed project will make efficient use of the land considering the solar resource, the technology to be used, and the proposed project layout.

40-km resolution GIS information from NREL (updated 4/22/2009) shows the proposed location of the LSEP has a solar radiation rating of 6.43 kWh/m²/day. The solar radiation rating varies from a high of 7.30 in September to a low of 4.69 in December. The LSEP would generate up to 50-MW of electricity.

The LSEP would use ground-mounted PV technology. The planned footprint of the proposed LSEP is approximately 435 acres (out of 560 acres identified in the application). This footprint translates to 8.7 acres per megawatt capacity, compared with 9 acres per megawatt for PV projects assumed by Chapter 8 of the Solar PEIS. The final project development layout will be designed based on issues identified in the project's scoping phase.

11. If applicable, documentation that the LSEP will be located in an area identified as suitable for solar energy development in an applicable BLM land use plan and/or by another the related process such as the California DRECP (e.g. Development Focus Area) or Arizona RDEP (e.g., REDAs).

The proposed location of the LSEP was designated as a variance area in the Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States (Solar PEIS). The proposed project location is characterized by the presence of few natural resource and management conflicts and proximity to a transmission line.

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12. If applicable, special circumstances associated with an application such as an expansion or repowering of an existing project or unique interagency partnership.

Not applicable to the LSEP.

13. If applicable, opportunities to combine federal and nonfederal lands for optimum siting (e.g., combining BLM-administered land with adjacent previously disturbed private lands).

Not applicable to the LSEP.

14. If applicable, documentation that the proposed project will be located in, or adjacent to, previously contaminated or disturbed lands such as brownfields identified by the EPA's RE-Powering America's Land Initiative (<http://www.epa.gov/renewableenergyland>); mechanically altered lands such as mine-scarred lands and fallowed agricultural lands; idle or underutilized industrial areas; lands adjacent to urbanized areas and/or load centers; or areas repeatedly burned and invaded by fire-promoting non-native grasses where the probability of restoration is determined to be limited.

Not applicable to the LSEP.

15. Documentation that the proposed project will minimize adverse impacts on access and recreational opportunities on public lands (including hunting, fishing, and other fish- and wildlife-related activities).

The proposed LSEP is surrounded on all sides by public lands. Other than State Highway 361, no roads are located in the project area. There are very limited opportunities for hunting and other wildlife-related activities. Public access would not be affected by the LSEP.

16. Documentation that the proposed project will minimize adverse impacts on important fish and wildlife habitats and migration/movement corridors (e.g., utilizing the Western Wildlife CHAT, administered by the Western Governor's Wildlife Council [<http://www.westgov.org/wildlife/380-chat>] and coordinating with state fish and wildlife agencies).

The proposed location is not within important fish and wildlife habitat, other than being shown as a desert mountain goat area in the Carson City CRMP. Current review cannot determine why the designation was shown. Mountain goats are not present in Mineral County.

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17. Documentation that the proposed project will be designed, constructed, and operated to use the best available technology for limiting water use that is applicable to the specific generation technology.

The choice of PV technology for the proposed project will minimize the amount of water required to support the project. Any use of water for the project will be coordinated with and permitted through the appropriate State and local authorities, including Mineral County and the State of Nevada.

During the construction phase of the project, the overall water consumption is estimated be less than three million gallons, or approximately 9.2 acre-feet. During the operational phase, approximately one quarter million gallons (.75 acre-feet) of water would be needed to wash the solar panels each time. The frequency of washings would be dictated by the performance of the PV solar panels. All water would be purchased from commercial sources and trucked to the project area.

18. Documentation that any groundwater withdrawal associated with a proposed project will not cause or contribute to withdrawals over the perennial yield of the basin, or cause an adverse effect on ESA-listed or other special status species or their habitats over the long term. However, where groundwater extraction may affect groundwater-dependent ecosystems, and especially within groundwater basins that have been over appropriated by state water resource agencies, an application may be acceptable if commitments are made to provide mitigation measures that will provide a net benefit to that specific groundwater resource over the duration of the project. Determination of impacts on groundwater will likely require applicants to undertake hydrological studies using available data and accepted models.

No groundwater withdrawal is anticipated for construction or operation of the project.

19. Documentation that the proposed project will not adversely affect lands donated or acquired for conservation purposes or mitigation lands identified in previously approved projects such as translocation areas for desert tortoise.

Not applicable to the LSEP. The project area is not adjacent to or otherwise near any donated or acquired conservation or mitigation lands.

20. Documentation that significant cumulative impacts on resources of concern should not occur as a result of the proposed project (i.e., exceedance of an established threshold such as air quality standards).

No significant cumulative impacts on resources of concern are known or anticipated as a result of construction or operation of the proposed project.

21. Desert Tortoise concerns.

The proposed location for the LSEP is not in desert tortoise habitat.

22. Greater Sage-Grouse concerns.

The proposed location for the LSEP is not in greater sage-grouse habitat.

23. Protecting Resources and Values of Units of the National Park System and Other Special Status Areas under National Park Service Administration.

There are no units of the National Park Service near the proposed LSEP.