Department of Energy
Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

DOE/EA-1935

FINDING OF NO SIGNIFICANT IMPACT

To'Hajiilee Solar Project in Bernalillo County, New Mexico

AGENCY: U.S. Department of Energy, Golden Field Office

ACTION: Adoption of the United States Department of the Interior, Bureau of Indian Affairs *Final Environmental Assessment for the To'Hajiilee Solar Project* and a Department of Energy Finding of No Significant Impact

SUMMARY: The U. S. Department of Energy (DOE) is proposing to authorize the expenditure of federal funding by To'Hajiilee Economic Development Incorporated (TEDI), to develop viable solar energy resources within its tribal boundaries. TEDI is a corporate entity of the To'Hajiilee Chapter of the Navajo Nation (Chapter) (formerly known and sometimes referred to as the Cañoncito Band of Navajos (CBN), a local governmental unit of a federally recognized tribe). TEDI proposes to use DOE funds to conduct development activities for the 30-megawatt (MW) Shá́ńdíín Solar Project (the Solar Project) including: completing final engineering and design, obtaining an interconnect agreement, obtaining a lease agreement, finalizing financing, completing business agreements and obtaining a power purchase agreement.

The U.S. Department of Interior, Bureau of Indian Affairs (BIA) completed an Environmental Assessment (EA) titled *Final Environmental Assessment for the To'Hajiilee Solar Project* for the construction and operation of the proposed Solar Project on the Cañoncito Band of Navajo Reservation in Bernalillo County, New Mexico. All discussion, analysis and findings related to the potential impacts of construction, operation and decommissioning of the Solar Project, including applicant-committed mitigation measures, are contained in the EA. TEDI must follow all applicant-committed mitigation measures contained in Section 6 of the EA. BIA is responsible for granting approval for the execution of a master lease agreement between CBN and TEDI, as well as a sublease agreement (if any) between TEDI and the operator of the project. The EA analyzes the environmental impacts of approving the lease agreements for the proposed Solar Project. Based on the EA, the BIA issued a Finding of No Significant Impact (FONSI) on May 31, 2011.

DOE determined that providing funding to TEDI for development activities, including final design, would represent a connected action, as defined by the *National Environmental Policy Act,* to the construction and operation of the BIA Solar Project. DOE has analyzed BIA's EA,

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conducted follow-on consultation, and determined the EA to be adequate and satisfactory in addressing DOE's NEPA regulations for providing financial assistance. The EA is incorporated by reference.

DOE prepared this FONSI in accordance with the *National Environmental Policy Act* (42 U.S.C. 4321 *et seq.*; NEPA), the Council on Environmental Quality NEPA regulations (40 CFR Parts 1500 to 1508), and DOE's NEPA implementing procedures (10 CFR Part 1021).

SOLAR PROJECT DESCRIPTION: The Solar Project would be located on tribal lands 2.5 miles northwest of the intersection of Interstate 40 and Rio Puerco Road – about 20 miles west of Albuquerque, New Mexico. The Solar Project has been incorporated under the name Sháńdíín Solar, LLC. The footprint of the Solar Project is approximately 195 acres and occurs within a previously disturbed yet undeveloped area. Approximately 86,400 SunPower Corporation (SunPower) 425-watt modules would be installed and operated. The modules contain solar photovoltaic (PV) panels made of high-efficiency monocrystalline silicon. The system would generate electricity, collect it to a new substation within the project area, and then interconnect the power to the Public Service Company of New Mexico 115-kilovolt (kV) Bluewater transmission line for delivery to customers.

The substation would be approximately 30,000 square feet and would contain metering equipment, switchgear, a series of fuses and circuit breakers that act as protective relays, and transformers to step-up the voltage to match the voltage of the existing 115–kv transmission line.

In addition, the Solar Project would require improvement of an existing unnamed road that would be used to access the project site from Rio Puerco Road. This road would be improved to allow for vehicular access during construction and for the lifetime of the project. The solar panels and other infrastructure are expected to have a life of at least 50 years.

ENVIRONMENTAL IMPACTS: The EA examined the potential environmental impacts of BIA's Proposed Action, authorizing the expenditure of federal funding and granting approval of the lease agreements to implement the Solar Project, as well as a No Action Alternative. Under the No-Action Alternative, BIA would not approve the lease agreements and To'Hajiilee would not be able to pursue the proposed project. In addition, DOE would not authorize the use of federal funds for the development activities of the Solar Project (completing final engineering and design, obtaining an interconnect agreement, obtaining a lease agreement, finalizing financing, completing business agreements and obtaining a power purchase agreement), which DOE assumes for purposes of the EA, would not proceed without federal funding. This assumption allows a comparison between the potential impacts of the project as proposed and the impacts of not proceeding with the project.

No prime farmlands, wetlands, or rivers included in the National Wild and Scenic Rivers Systems, or unique sensitive areas have been identified in the proposed project area. Therefore, no impact to such areas would result from the proposed project. Intentional destructive acts are also not anticipated because the project would not involve the transportation, storage, or use of radioactive, explosive, or toxic materials; the project location is not near any national defense

infrastructure or in the immediate vicinity of a major inland port, container terminal, or nuclear power plant; and the proposed project would not offer any targets of opportunity for terrorists or saboteurs to inflict adverse impacts to human life, heath, or safety.

The EA analyzed geology and soils; air quality and climate; hazardous materials; noise; public services and utilities; safety and security; and cumulative impacts of the Solar Project. DOE has determined that for all these resource areas there would be no impacts or that the impacts would be negligible.

The EA evaluated the cumulative impacts of the proposed project and other past, present, and reasonably foreseeable projects in the area, DOE concluded the Solar Project, in conjunction with other activities considered, would have no or minimal cumulative impacts on the environmental resources considered. The construction and operation of the Solar Project would have the greatest potential for impacts on water resources and water quality; floodplain management; biological resources; agricultural land use; socioeconomics and environmental justice; visual resources; traffic and circulation; and cultural resources. The analyses associated with these resource areas are discussed in more detail below. A complete analysis of all potential environmental impacts in presented in the EA.

Water Resources and Water Quality
A maximum of 380,000 gallons of water will be used annually to clean the solar panels. Water for cleaning would be obtained from a groundwater well located approximately 2.2 miles from the project area across existing roads. The groundwater table may be temporarily impacted during scheduled cleaning and maintenance operations. However, the Cañyoncito Community Water System, operated and maintained by the To'Hajiilee Chapter's Water Project Office, has adequate infrastructure to serve the project water requirements.

No long-term impacts to surface water are expected. The Solar Project would result in minimal and temporary impacts to surface water resources, during the construction phase, immediately adjacent to the project area. The proposed project area is approximately 1.2 miles from the Rio Puerco, however, impacts to the water quality of the greater Rio Grande watershed are expected to be negligible. A Stormwater Pollution Prevention Plan will be prepared for this proposed project to mitigate erosion and water pollutants from construction and facility maintenance.

Floodplain Management
FEMA floodplain data does not exist for the segment of the Cañada del Ojo (dry wash) within the project area. Due to the lack of data, a preliminary drainage study was completed to identify the 100- year floodplain. According to the study, the proposed solar facility is outside the 100-year floodplain of the Cañada del Ojo segment that intersects the northern portion of the project area.

The Solar Project would require improvement of an existing unnamed road that would be used to access the project site from Rio Puerco Road. This road crosses the Cañada del Ojo within the 100-year floodplain. The road would be improved by widening it to 16 feet in width.

Approximately 4 to 8 inches of Class 2 aggregate with 3 inches of asphalt concrete would be laid for the road improvement. The road improvement would result in minimal and temporary impacts to surface water resources immediately adjacent to the project area.

DOE reviewed the floodplain management requirements of *10 CFR Part 1022 Floodplain and Wetland Environmental Review Requirements* and has determined they are not applicable to the DOE's Proposed Action for the following reasons:

- DOE funding is being used solely to support pre-development, non-construction activities relating to the To'Hajiilee Solar Project.
- No DOE funding is or will be used to support any of the road development work which may be in a floodplain.
- The existing BIA NEPA documentation addressed the road development as part of BIA's Proposed Action in the proposed solar development environmental assessment. In addition, BIA is the federal agency having jurisdiction of the tribal lands related to any floodplain development.

Biological Resources

DOE conducted Endangered Species Act Section 7 consultation with the U.S. Fish and Wildlife Service on August 8, 2012 and determined that there are no federally listed threatened and endangered species in the project area.

Two species, the western burrowing owl and the kit fox, are both listed on the Navajo Endangered Species List and were observed near the project footprint during biological surveys. The mountain plover also listed on the Navajo Endangered Species List was not observed directly within the proposed project area during surveys. Any effects on the western burrowing owl would be short term, lasting the duration of the construction period because once construction is complete, the western burrowing owl could continue to use habitat within the project footprint. The proposed project is not expected to impact the kit fox because the amount of habitat available to the kit fox outside of the project area is vast. The mountain plover is not expected to be impacted because the amount of habitat available to the bird outside of the project area is vast.

Pre-construction surveys will be completed for the three species listed above to identify any new or modified nesting locations and dens. Applicant-committed mitigation measures (see section 6.3 of the EA) would be applied to the nests and/or dens identified during the pre-construction survey. Since the area available outside the project area is vast and TEDI is required to follow the applicant committed mitigation measures, impacts to biological resources will be minimal.

Agricultural Land Use

Existing land uses at the project site includes livestock grazing. The proposed project would result in the loss of about 195 acres of livestock grazing. The grazing allottee has been notified, that the grazing allotment would be removed from the project area, if the project is approved. The grazing allottee would have the option to obtain another grazing allotment on the reservation. BIA has approved a temporary low-intensity sheep grazing permit for the project

area to control weeds during the life of the project. Since other available grazing allotments outside the project area are available, and TEDI is required to follow the applicant committed mitigation measures, impacts to agricultural land use will be minimal.

Socioeconomics and Environmental Justice
The proposed project would have a small direct, beneficial impact to the local economy, especially during the construction phase. It would also generate funds for the Chapter, which would be used for improvement projects on tribal lands. Tribal members would receive indirect beneficial impacts from the project as a result of the additional revenue. The developer would be encouraged to hire tribal members for the construction, operation and maintenance of the proposed project. Two full-time permanent jobs are expected to be generated by this project. Since the proposed project would benefit the local economy, including local low-income and minority populations on the reservation, the proposed project would not have disproportionate effects on any group.

Visual Resources
The proposed project is located in an area surrounded by undeveloped land with similar vegetation and topography. Vacant land is the predominant feature of the viewshed. There is a residential neighborhood located 0.5 mile north of the project area, across Rio Puerco Road. The Route 66 Casino, operated by Laguna Pueblo, is located approximately 1.7 miles from the project area at the intersection of Rio Puerco Road and Interstate 40. Due to the existing characteristics of the existing viewshed, the Solar Project would result in a minor change in the area's visual resources during and after construction. Once constructed, the solar facility would occupy 195 acres of the project area. This project would be visible by both the local residents as well as guests staying in the highest, north-facing rooms at the Route 66 Casino.

Traffic and Circulation
During the construction phase of the proposed project, a temporary increase in the number and frequency of vehicular traffic on the local roads surrounding the project site and Interstate 40 is anticipated. Construction employees, materials, and equipment would need to access the project area on a daily basis for the ten to twelve month duration of the construction phase. Traffic would increase during the morning and evening hours. However, the increase in traffic is expected to be negligible.

The existing unnamed road within the project area would be used for access from Rio Puerco Road to the project area. This road would be widened to approximately 16 feet and would no longer be open to the public. Residents that currently use the unnamed road for access to Rio Puerco Road could use another existing route. This alternative route is approximately 1.5 mile northwest of the southern boundary of the Solar Project. Therefore, the proposed project would result in a minor, yet permanent detour for local traffic around the solar facility.

Cultural Resources
Two cultural resource sites were identified within the project area and are considered significant and eligible for the National Register of Historic Places (NRHP). All features related to these two sites will be avoided by solar facility design and layout. Applicant-committed mitigation measures (see section 6.6 of the EA) would be applied during construction of the Solar Project.

In the event that archeological deposits are uncovered the project work will be stopped in the vicinity of the discovery and reasonable measures to avoid or minimize harm to the finds will be taken. All archeological findings will be secured and access to the sensitive area restricted. Work will not resume until consultation is completed and appropriate measures have been taken to ensure that the project is in compliance with the National Historic Preservation Act. These site protection measures will protect the integrity of both sites to preserve their NRHP eligibility and prevent any adverse effects to historic or cultural properties.

The designated Tribal Historic Preservation Office, known as the Navajo Nation Historic Preservation Department (NNHPD), conducted a site visit to the project area on November 4, 2010 and reviewed the cultural resources report for the project. The NNHPD finalized a Cultural Resources Compliance Form No. *HPD-10-871-REVISED* for the proposed project including the site protection measures listed in Appendix F of the EA.

DETERMINATION: Based on the review of BIA's EA, DOE determines that providing federal funding to conduct development activities for the 30-megawatt (MW) Sháńdíín Solar Project including: completing final engineering and design, obtaining an interconnect agreement, obtaining a lease agreement, finalizing financing, completing business agreements and obtaining a power purchase agreement would not constitute a major federal action significantly affecting the quality of the human environment within the context of NEPA.

Therefore, the preparation of an Environmental Impact Statement is not required, and DOE hereby adopts the BIA's *Final Environmental Assessment for the To'Hajiilee Solar Project* and issues this FONSI.

The EA is available at the DOE Golden Field Office Reading Room website:

http://www.eere.energy.gov/golden/Reading_Room.aspx

For questions about this FONSI, contact:

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