

**FINDING OF NO SIGNIFICANT IMPACT
LOAN GUARANTEE DISBURSEMENT FOR TUSCARORA PHASE II GENERATING
FACILITY AT TUSCARORA GEOTHERMAL POWER FACILITY, ELKO NEVADA**

AGENCY: U.S. Department of Energy, Loan Programs Office

ACTION: Finding of No Significant Impact

SUMMARY: In 2011 the U.S. Department of Energy (DOE) conducted an environmental assessment (DOE/EA-1849) (EA) analyzing the potential environmental impacts associated with issuing a Federal loan guarantee to John Hancock Financial Services for Ormat Nevada, Inc. (Ormat), through its subsidiaries, for development of three geothermal power production facilities and related transmission capacity at three locations in Nevada.¹ DOE subsequently issued a Finding of No Significant Impact (FONSI) on August 22, 2011, and closed on the loan guarantee to Ormat in September 2011.

The loan guarantee agreement includes a provision for possible future funding of expanded production (Phase II) at the Tuscarora Geothermal Power Facility in northern Elko County in Independence Valley, approximately 70 miles north of Elko, Nevada, if geothermal resources are found to be sufficient. Recent Ormat exploration activities indicate that additional geothermal resources exist at Tuscarora, and Ormat is proposing to construct, operate and maintain the Phase II geothermal facility. DOE is considering whether or not to allow financing of the project expansion through a disbursement of DOE loan guaranteed funds.

The DOE loan guarantee agreement requires that Ormat obtain all required approvals and permits for Tuscarora Phase II, including any required DOE National Environmental Policy Act (NEPA) review, prior to using loan guaranteed funds for construction. Accordingly, on August 14, 2013, DOE made a determination to prepare a Supplemental Environmental Assessment (SEA) (DOE EA-1849-S-1) which is incorporated here by reference. The SEA provided additional information to the 2011 EA; the SEA did not repeat relevant information that is in the EA but did include references to assist readers. The decision to prepare an SEA was made in accordance with the requirements of NEPA, the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021).

The DOE NEPA regulations provide for notifying host states and tribes of NEPA determinations and for the opportunity for host states and tribes to review SEAs prior to DOE approval. This process is intended to improve coordination and to facilitate early and open communication. On August 14, 2014, DOE sent a notification letter regarding its determination to prepare the SEA to the Nevada State Clearinghouse and the Elko Nevada County Board of County Commissioners. The letter described the proposed action and stated that the Draft SEA would be sent to the State

¹ The Tuscarora Geothermal Power Plant Facility (Tuscarora Facility) in Elko County, the Jersey Valley Geothermal Development Facility (Jersey Valley Facility) in Pershing County, and the McGinness Hills Geothermal Facility (McGinness Hills Facility) in Lander County.

of Nevada for review. Similar letters were sent August 13, 2014 to the Shoshone Paiute Tribes of the Duck Valley Reservation and the Duckwater Shoshone Tribe. On September 13, 2014, the Duckwater Shoshone Tribe replied that the Duckwater Tribal Council had decided that the traditional tribal boundaries are more to the south of Elko County. No comments were received from the State of Nevada, the Elko County Board of County Commissioners, or the Shoshone Paiute Tribes of the Duck Valley Reservation.

On October 22, 2014, DOE sent the Draft SEA to the Nevada State Clearinghouse inviting their comments on the Draft SEA. The Draft SEA was also posted for public review on the DOE Loan Programs Office website. On November 14, 2014, the Nevada Division of State Lands in the Department of Conservation and Natural Resources provided comments requesting that the cumulative visual impacts related to the use of appropriate lighting be considered. Specific recommendations included use of lighting mitigation measures that follow "Dark Sky" lighting practices, screening to avoid light shining up or out, consolidating any required FAA lighting and development of a lighting plan that indicates location, lumens, and areas illuminated.

DOE has considered these comments and consulted with Ormat regarding their implementation. The facility will require lighting to provide for nighttime safety and security. Lighting measures to protect wildlife were addressed in Section 4.5 of the SEA for the Phase II plant and at Section 2.1.7.4 of the 2011 EA for the earlier Phase I plant. To minimize the impact of artificial light on wildlife and the natural environment, and to reduce visual impacts of the facility when seen from a distance, "Dark skies" lighting initiatives will be used. These initiatives will allow outdoor lighting to meet safety, security, productivity and other requirements, but will reduce adverse offsite light impacts, curtail pollution from excessive ambient light, conserve energy, and preserve the natural environment. Measures will be taken to ensure that light emanating from the construction sites and operational facilities will be reduced by using low-output lighting with motion sensors, where feasible, to provide the necessary light only when needed. In addition, all lighting will be installed within hoods, shields, or soffits that will direct light downward onto the areas requiring illumination, and prevent light from shining upward or outward onto adjacent lands.

During the DOE comment period, no comments on the SEA were received from the public or the above-mentioned Tribes.

In the SEA, DOE determined that construction and operation of the Phase II plant would impact one archaeological site (26EK9860) that had previously been determined to be eligible for listing on the National Register of Historic Places (NRHP) because of its potential to yield important information about the prehistory of the Independence Valley and Elko County. A DOE loan disbursement would be a Federal undertaking subject to the National Historic Preservation Act and therefore the SEA indicated that measures would be taken to mitigate or resolve the adverse effects of the proposed undertaking on site 26EK9860. Pursuant to a June 2014 Second Amendment to the MOA between DOE, the Bureau of Land Management, U.S. Army Corps of Engineers, and the Nevada State Historic Preservation Officer regarding the Tuscarora Geothermal Project Phase II, a mitigation plan was developed. The mitigation activities in the plan were completed and are documented in a November 2014 Mitigation Report for Site

26EK9860, Independence Valley, Elko County, Nevada (Cultural Resources Report 5356-02-21402) submitted to DOE by P-III Associates, Inc.

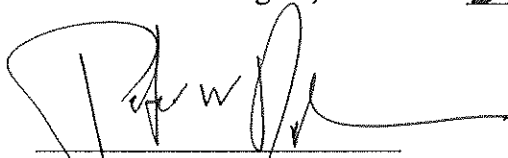
As documented in the SEA, DOE has examined potential impacts to biological, physical and sociocultural resources potentially affected by the construction of Ormat's Tuscarora Phase II, and found none to be significant.

DETERMINATION: On the basis of the Final SEA, DOE has determined that issuing a disbursement from Federal loan guaranteed funding to John Hancock Financial Services for Ormat to construct the Phase II facility at Tuscarora would not have a significant effect on the human environment. The preparation of an environmental impact statement is therefore not required, and DOE is issuing this Finding of No Significant Impact.

Copies of the Final SEA is available at the DOE Loan Programs Office website at http://lpo.energy.gov/?page_id=1514 or from:

Joe Montgomery
NEPA Coordinator
U.S. Department of Energy
1000 Independence Ave, SW, LP-10
Washington, DC 20585
Joseph.Montgomery@hq.doe.gov

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Peter W. Davidson
Executive Director
Loan Programs Office