

**FINDING OF NO SIGNIFICANT IMPACT**  
**DEPARTMENT OF ENERGY LOAN GUARANTEE FOR ORMAT LLC TUSCARORA**  
**GEOHERMAL POWER FACILITY, ELKO NEVADA; JERSEY VALLEY**  
**GEOHERMAL POWER FACILITY, PERSHING COUNTY, NEVADA; AND**  
**MCGUINNESS HILLS GEOHERMAL FACILITY, LANDER COUNTY NEVADA**

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

**ACTION:** Finding of No Significant Impact

**SUMMARY:** The U.S. Department of Energy (DOE) has conducted an environmental assessment (EA) that analyzed the potential environmental impacts associated with issuing a 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. The power production facilities include 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.

DOE, through its Loan Programs Office (LPO), proposes to provide a Federal loan guarantee pursuant to Title XVII of the Energy Policy Act of 2005 (EPAAct or the Act), as amended by section 406 of the American Recovery and Reinvestment Act of 2009, to ORMAT to support the construction of the proposed geothermal power facilities and associated transmission lines and access roads. The purpose and need for agency action is to comply with DOE's mandate under EPAAct, by selecting projects that meet the goals of the Act. The Proposed Action is expected to achieve 122 MW produced by the three geothermal power facilities, pursuant to a continuous construction plan for two phases of each facility. Total net output for the three facilities would be 63 net MW for Phase I and 59 MW for Phase II. Phase I is based on geologic resources that are currently known to be sufficient to produce specified levels of power. Phase II would add capacity as more information is gained regarding additional geologic resources that are expected at each site.

The Tuscarora Facility would be located in northern Elko County in Independence Valley, approximately 70 miles north of Elko, Nevada. This facility would include production and injection wells and a 19 net megawatt generating binary power plant for Phase I and 19 net<sup>1</sup> megawatts for Phase II. The power plant and production/injection wells would be located wholly on private land leased from the Ellison Ranching Company. Construction began on the Tuscarora power plant facility in 2008 with the construction of access roads, well pads, and the drilling of geothermal production and injections wells, entirely on private land. Since that time, the applicant has continued work on the project on private land, utilizing non-Federal funds. As of

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<sup>1</sup> Net megawatts is the power transmitted onto the grid. Gross megawatts is the power produced by the plant. The difference is the energy used by the power plant.

the end of June 2011, construction of the facility was about forty percent complete. Construction of the project is expected to be complete around October 15, 2011. For purposes of evaluating the potential impacts of the proposed facility, DOE has analyzed the environmental effects of the entire facility, starting at the beginning of construction through the facility's proposed operation. On July 29, 2011 the BLM Elko District issued a FONSI for the transmission line that will serve the Tuscarora Facility (Hot Sulphur Springs Transmission Line and access road) and its Decision Record for approval of Right-of-Ways for the transmission line and access road.

The Jersey Valley Facility is located in Pershing County, approximately 50 miles south of Winnemucca, Nevada. Phase I of the facility is a 14 net megawatt geothermal power generating plant with a 27.5-mile transmission line. Phase II is expected to add 10 net MW, for a total of 24 MW. Power generated at this facility would be sent to the NV Energy Bannock Switch located in Lander County, southwest of Battle Mountain, Nevada. The Jersey Valley Facility is located on both private lands and public land administered by the BLM Mount Lewis Field Office. Construction of the Jersey Valley facility and transmission line was completed in November 2010 and power production was initiated in December 2010

The McGinness Hills Facility is located in Lander County approximately 10 miles northeast of Austin, Nevada. This facility will include a total of 60 net MW from two geothermal power generating plants, and a nine-mile transmission line. This includes 30 MW for Phase I and 30 MW for Phase II. The facility would deliver the power to NV Energy's Frontier Substation. This facility would be located on both private land and public lands administered by the BLM Mount Lewis Field Office, and the United States Forest Service (USFS), Austin/Tonopah Ranger District. Under the McGinness Hills Geothermal Exploration Project, which was analyzed by BLM in an April 2009 EA (NV063-EA08-093 McGinness Hills Geothermal Exploration Project, Lander County, Nevada), eight wells have been drilled from seven pads, associated access roads have been constructed on BLM land, and five additional wells and associated access roads have been constructed on private land. On July 19, 2011, the BLM Battle Mountain District signed a FONSI and issued its final EA for the McGinness Hills Facility. On July 22, 2011, the Forest Supervisor for the Humboldt-Toiyabe National Forest signed a FONSI and Decision Notice for a special use permit for the construction, operation and maintenance of a transmission line on US Forest Service land to serve the McGinness Hills Facility.

NEPA allows agencies to incorporate material by reference if the effect will be to cut down on bulk without impeding agency or public review of the Proposed Action. The material must be reasonably available for inspection, and be cited and summarized in the NEPA document (40 CFR 1502.21). As the lead agency for this EA, the DOE reviewed the EAs for the Transmission Line, Jersey Valley Facility and McGinness Hills Facility. Based on its review, DOE concluded that those EAs would contribute substantially to the analysis of the Proposed Action in this EA. Accordingly, the following documents are incorporated by reference in this EA:

- *Environmental Assessment – T G Power LLC Hot Sulphur Springs Transmission Line, 120 kV Electric Power Line, Northern Independence Valley, Elko County, Nevada.* Bureau of Land Management, Elko Field Office, March 2008 (BLM, 2008a).

- *Jersey Valley and Buffalo Valley Geothermal Development Projects, Pershing and Lander Counties, Nevada, Environmental Assessment.* Bureau of Land Management Battle Mountain District Office, May 2010 (BLM, 2010).
- *McGinness Hills Geothermal Development Project, Lander County, Nevada, Environmental Assessment.* Bureau of Land Management Battle Mountain District Office, May 2011 (BLM, 2011a).

DOE examined potential impacts on the following resources and found none to be significant: land use; visual resources; air quality; noise; geology and seismicity; water resources; biological resources; cultural resources; socioeconomics; environmental justice; public health and safety, including terrorism-related impacts; and cumulative effects, including global climate change. All discussion and analysis related to the potential impacts of construction and operation of the proposed geothermal power generation facilities are contained in the Final EA (DOE/EA-1849), which is incorporated herein by reference.

In accordance with applicable regulations and policies, on November 22, 2010, DOE sent a notification letter regarding its determination to prepare an EA to the Nevada State Clearinghouse and thirteen Native American Tribes with an historic interest in the Ormat facility locations. The letter described the proposed action and stated that a Draft EA would be sent to the State for review.

On July 13, 2011, DOE sent the Draft EA to the Nevada State Clearinghouse, the Shoshone-Paiute Tribes of the Duck Valley Reservation, and the Duckwater Shoshone Tribe to invite their comments on the Draft EA during a two week review period that ended July 29, 2011. The Draft EA was also posted on the Loan Programs Office website. In addition, the Draft EA was posted on the BLM Elko, Nevada website for a two week public review which also ended July 29, 2011. At the end of this review period BLM issued its Finding of No Significant Impact (FONSI) and Decision Document on its decision to issue a Right-of-Way grant for the Tuscarora transmission line. This ended BLM's participation in the EA.

During the DOE and BLM comment periods for the draft EA, a total of four comment letters were received from the following: the U.S. Environmental Protection Agency, Region IX (EPA); the Nevada Department of Wildlife (NDOW); the Pacific Southwest Region of the U.S. Fish and Wildlife Service (FWS); and the Western Watersheds Project. The comments addressed a variety of topics including impacts to waters of the United States, biological resource impacts (particularly sage grouse), the need for various management and monitoring plans, mitigation, and the level of detail and environmental analysis warranted by the proposed action. DOE has considered these comments and provides detailed responses in Appendix E of the Final EA.

**DETERMINATION:** On the basis of the Final EA, DOE has determined that issuing a loan guarantee to John Hancock Financial Services for Ormat Nevada, Inc. (ORMAT) through its subsidiaries for development of these three geothermal power production facilities and related transmission capacity at three locations in Nevada (Tuscarora Facility, Jersey Valley Facility and the McGinness Hills Facility) will 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.

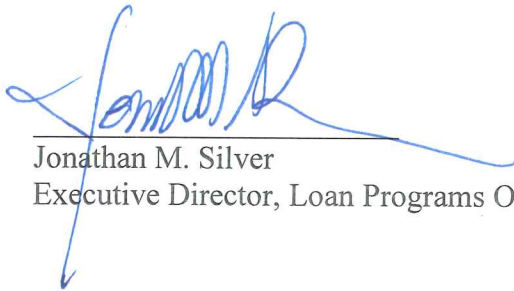
Copies of the Final EA are available at the DOE Loan Programs Office website at [http://lpo.energy.gov/?page\\_id=1514](http://lpo.energy.gov/?page_id=1514) or from:

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

Additional information on the DOE NEPA process is available from

Office of NEPA Policy and Compliance  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585  
202-586-4600 or 1-800-472-2756

Issued in Washington, DC on the 22 day of August in the year 2011



Jonathan M. Silver  
Executive Director, Loan Programs Office