



Department of Energy

Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

August 26, 2002

DOE/EA-1396

FINDING OF NO SIGNIFICANT IMPACT For the SMALL-SCALE POWER PLANT AND DIRECT-USE GEOTHERMAL APPLICATION At AMERICULTURE, INC., COTTON CITY, NEW MEXICO

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

ACTION: Finding of No Significant impact (FONSI)

SUMMARY: The U.S. Department of Energy (DOE) conducted an Environmental Assessment (EA) of the Small-Scale Power Plant and Direct-Use Application at AmeriCulture, Inc. to evaluate potential impacts of construction and operations that would be funded in part by DOE.

Small geothermal power plants have the potential for widespread application, but achieving cost-effectiveness in small plant sizes presents a number of challenges. To address these challenges, DOE is supporting the small-scale field verification projects to (1) determine and validate the economics, performance, and operational characteristics of small-scale geothermal electric power plants in different regions, and (2) determine their ability to provide distributed power in order to facilitate their increased use in the western United States.

Through the Geothermal Energy Program, DOE is considering providing financial assistance to Exergy, Inc., of Hayward, California, for the development and field verification of a small-scale, approximately 1 megawatt (MW), geothermal power plant. The proposed power plant would be located upstream of an existing geothermally-heated fish hatchery owned by AmeriCulture, Inc., of Cotton City, NM. DOE is also considering partially funding AmeriCulture, Inc., for a direct-use geothermal application using fluid discharged from the proposed power plant to heat water for the hatchery.

The EA addresses the construction and operation of the small-scale, geothermal power plant and the direct use of geothermal fluid exhausted from the geothermal power plant as a heating source for the hatchery. Two system concepts were investigated. The preferred concept involves cascading the spent geothermal fluid from the proposed geothermal power plant to various thermal processes used for fish production. In the second concept, the proposed power plant would not be built, and the fluid from the existing geothermal well would be used for all direct-use operations associated with the project. DOE/NREL will take this opportunity to monitor and evaluate the technical and economic performance of the proposed power plant and the direct-use project. This information will be used to advance the design and use of small-scale geothermal technologies.

The funding decision of the DOE is whether or not to partially fund the Proposed Action. The proposed power plant project would be administered and managed by the DOE Golden Field Office. Partial funding for the direct-use application project would be provided through a National Renewable Energy Laboratory (NREL) subcontract with AmeriCulture, Inc. The direct-use application would be managed by NREL.



All discussions and findings related to this site and the proposed action are contained in the attached Final EA and appendices. The Final EA is hereby incorporated by reference.

COPIES OF THE ENVIRONMENTAL ASSESSMENT ARE AVAILABLE FROM:

Steve Blazek
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1617 Cole Blvd.
Golden, CO 80401

FOR FURTHER INFORMATION ON THE DOE NEPA PROCESS CONTACT:

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DETERMINATION:

Eased on the Final EA, DOE determines that providing partial funding for the construction and operation of the small-scale, geothermal power plant and the direct use application of geothermal fluid at AmeriCulture, Inc. does not constitute a major Federal action significantly affecting the quality of the human environment, within the meaning of the National Environmental Policy Act. Therefore, the preparation of an Environmental Impact Statement is not required, and DOE is issuing this Finding of No Significant Impact.

Issued in Golden, Colorado, 27th day of August, 2002.



John Kersten
Acting Manager