

BUREAU OF LAND MANAGEMENT OR-12-05 For release: April 5, 2012 Contacts: Lisa Clark (541) 280-9560

BLM Approves Enhanced Geothermal Systems Demonstration Project

CENTRAL OREGON—USDI Bureau of Land Management (BLM) is issuing a decision authorizing a demonstration project to evaluate the potential for producing energy through the use of Enhanced Geothermal Systems (EGS) technology near Newberry Volcano. If successful, this project could advance EGS technology and facilitate the development of a domestic, renewable, clean energy option for the United States through the extraction of heat from engineered reservoirs of underground hot rock.

The Environmental Analysis (EA) was initiated after the BLM received a Notice of Intent to Conduct Geothermal Resource Exploration Operations from Davenport Newberry Holdings, LLC and AltaRock Energy, Inc. (the proponents) in May 2010. The project area is located approximately 22 miles south of Bend, OR on the Deschutes National Forest along the western flank of Newberry Volcano. With the exception of one strong motion sensor and one seismic monitoring station, the project is located outside the Newberry National Volcanic Monument. Although the project is located entirely within the Deschutes National Forest, the BLM is the lead agency as it has jurisdiction over geothermal leases on Federal lands. In addition, the U.S. Department of Energy is funding a portion of the project through the American Reinvestment and Recovery Act. The Forest Service and Department of Energy are cooperating agencies for this project.

The proposed project will create an EGS Demonstration Project over a two-year period involving new technology to test the feasibility of EGS for renewable energy production. The project proposes to develop and test an EGS reservoir using an existing 10,060-foot geothermal well. The reservoir will be created using a process called "hydroshearing," in which cold water is injected through the well and into existing fractures of hot rock at depths between 6,500 and 10,060 feet. The cold water slightly expands and extends the fractures creating additional surface area where water can circulate through hot rocks and heat up, much like the heat exchange process of a radiator. Diverters will be used to direct the water to specific areas of pre-existing fractures and small amounts of tracers commonly used in groundwater studies would be injected to monitor water flow. Shallow groundwater wells will provide water for the project. Prior to the injection of water, an array of sensitive seismometers will be installed on the surface and in bore-holes for real-time monitoring of the EGS stimulation.

The hydroshearing process will produce microseismic events. While these microseismic events have the potential to be felt in nearby communities like La Pine, engineering evaluations determined the seismicity had a very low risk of being felt by people in the vicinity of the project and an even lower risk that any damaging seismic events could occur. In addition, an Induced Seismicity Mitigation Plan has been developed which will take proactive measures to prevent microseismicity from escalating into felt or damaging seismic events.

Come join the Oregon/Washington BLM on Facebook, Twitter, YouTube, and Flickr for the latest on outdoor opportunities, videos of your public lands, spectacular photos, and a whole lot more! FACEBOOK: www.facebook.com/blmoregon FLICKR: www.flickr.com/photos/blmoregon





3050 NE Third Street • Prineville, Oregon 97754 • http://www.blm.gov/or/districts/prineville

Issues raised and addressed during review of the EA included concerns over groundwater quality, sources of water for the project, wildlife, scenic resources and the potential effects of induced seismicity.

Prineville District BLM District Manager, Carol Benkosky, has determined that the proposed actions will not significantly affect the quality of the human or natural environment, individually or cumulatively with other actions in the general area; therefore, the decision Finding of No Significant Impact (FONSI) has been reached by the BLM. The DOE has also issued a FONSI and the Forest Service will issue a special use permit authorizing installation of seismic monitoring equipment.

All documentation associated with this project including the EA, FONSI, Decision Record, and maps are available on the Prineville BLM website at: http://www.blm.gov/or/districts/prineville/plans/newberry/index.php

Persons or organizations who previously commented on the EA are eligible to appeal this decision. Any notice of appeal must be filed with the Prineville District BLM office, 3050 NE 3rd St, Prineville, OR 97754, within 30 days of receipt of the decision notice.

###

About the BLM: The BLM manages more than 245 million acres of public land – the most of any Federal agency. This land, known as the National System of Public Lands, is primarily located in 12 Western states, including Alaska. The BLM also administers 700 million acres of sub-surface mineral estate throughout the nation. In Fiscal Year (FY) 2011, recreational and other activities on BLM-managed land contributed more than \$130 billion to the U.S. economy and supported more than 600,000 American jobs. The Bureau is also one of a handful of agencies that collects more revenue than it spends. In FY 2012, nearly \$5.7 billion will be generated on lands managed by the BLM, which operates on a \$1.1 billion budget. The BLM's multiple-use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and by conserving natural, historical, cultural, and other resources on public lands.



Come join the Oregon/Washington BLM on Facebook, Twitter, YouTube, and Flickr for the latest on outdoor opportunities, videos of your public lands, spectacular photos, and a whole lot more! FACEBOOK: www.facebook.com/blmoregon FLICKR: www.flickr.com/photos/blmoregon TWITTER: www.twitter.com/blmoregon