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NEVADA GEOTHERMAL UPDATE

September 2007

NOTE - UPDATES AND NEW ITEMS ARE HIGHLIGHTED IN YELLOW

CURRENT POWER OPERATIONS

<u>Plant/Operator (year on-line)</u>	<u>Nameplate Capacity *</u>	<u>Location</u>
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*Nameplate Capacity as reported to the Division of Minerals for 2006.

Beowawe Power Plant (1985) Beowawe Power LLC/Caithness Operating	16.6 MW	S13, T31N R47E
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Bradys Power Plant (1992)	26.1 MW	S12, T22N R26E
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Brady Power Partners/ORMAT Nevada Inc.

- ♦ ORMAT NEVADA, INC. (Brady Power Partners); State Permit #562; API #27-001-90306 for Production Well #15-12 issued Nov 22, 2004; NW/4 SW/4, Section 12 T22N R26E; Commercial production well in the Brady South Project Area; Desert Peak – Brady Hot Springs; Churchill County, Nevada; PTD 5000'; SPUD Feb 28, 2007 with DHS rig #14; Drilling complete March 2007; TEMPORARILY SHUT IN.
- ♦ ORMAT NEVADA, INC. (Brady Power Partners); State Permit #676; API #27-001-90323 for Production Well #16-12 issued Feb 12, 2007; NW/4 SW/4, Section 12 T22N R26E; Commercial production well in the Brady South Project Area; Desert Peak III – Brady Hot Springs; Churchill County, Nevada; PTD 5000'; NEW LOCATION.
- ♦ ORMAT NEVADA, INC. (Brady Power Partners); State Permit #677; API #27-001-90324 for Production Well #17-12 issued Feb 12, 2007; SW/4 SW/4, Section 12 T22N R26E; Commercial production well in the Brady South Project Area; Desert Peak III – Brady Hot Springs; Churchill County, Nevada; PTD 5000'; NEW LOCATION.

Desert Peak Power Plant (1985)	12.5 MW	S21, T22N R27E
Desert Peak 2 Power Plant (2006)	15 MW	S21, T22N R27E

Brady Power Partners/ORMAT Nevada Inc.

- ♦ June 2007 Ormat announced that Ormat Nevada Inc. has completed a transaction to sell part ownership interest in some of its geothermal projects in Nevada. Morgan Stanley & Co Inc and Lehman Brothers Inc will own the projects jointly with Ormat Nevada as institutional equity investors. The projects included are Desert Peak 2, Steamboat Hills, and Galena 2. – <http://www.ormat.com/news-and-events/new-releases/>
- ♦ Construction of the Desert Peak 2 power plant is complete. The plant is a state of the art facility with combined water and air-cooled OEC binary units. Unit testing and well testing is currently taking place. The original Desert Peak flash plant is expected to be decommissioned.
- ♦ Brady Power Partners (ORMAT); Well #23-1; DWR Permit #31002; API# 27-001-90024B; Section 23, T22E R27N, Desert Peak East, DOE Enhanced Geothermal Systems Technology Development (EGS); Well drilled in June 1979 to a total depth of 9641' by Phillips Petroleum Co.; Spud Oct 8, 2005 C&L Drilling rig #6; Twisted off drill stem during rework; rig moved off, well shut-in. Project under evaluation.

Dixie Valley Power Plant (1988) Caithness Dixie Valley/Caithness Operating	62.0 MW	S7, T24N R37E
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- ♦ August 2, 2007 - Caithness Energy LLC and ArcLight Capital Partners, LLC announced an agreement where ArcLight will acquire interests in 18 geothermal, wind and solar power projects from Caithness. Geothermal

Projects included in the agreement are: Coso, Dixie Valley, and Beowawe. Along with acquisition, ArcLight will also assume operation, maintenance and management for ten of the projects. The transaction is expected to close before the end of year 2007. ArcLight is headquartered in Boston and is a leading energy investment firm headed by Daniel Revers and Robb Turner. – <http://www.arclightcapital.com>

Empire Power Plant (1987) 4.8 MW S21, T29N R23E
Empire Energy LLC

Richard Burdette Power Plant (Galena 1) (2005) 30 MW S29, T18N R20E
Ormat Nevada, Inc.

PUC Approves Power Purchase Agreement for GALENA No. 3 Geothermal Power Project

- ♦ August 28, 2006 - Ormat Technologies, Inc. (NYSE: ORA) today announced that a 20-year Power Purchase Agreement (PPA) has been signed between Sierra Pacific Power Company and ORNI 14 LLC, a subsidiary of Ormat Nevada, Inc. The PPA received the approval of the Public Utilities Commission of Nevada. Under the PPA, the Galena No. 3 Geothermal Power Project will be integrated into Ormat's existing Steamboat Geothermal Complex located in Washoe County, Nevada. The new plant is expected to increase the total output supplied from the Steamboat Known Geothermal Resource Area to Sierra Pacific Power Company by between 15 and 25 MW, bringing the total output of the Steamboat KGRA Complex to approximately 90 MW. Ormat has already started the development of Galena No. 3 under this PPA and expects to complete its construction in the first half of 2008. <http://www.ormat.com/news-and-events/new-releases/>; <http://pucweb1.state.nv.us/PUCN/Dktinfo.aspx?Util=Electric> (See Docket 06-05040)

Steamboat 1, 1A Power Plants (1986) 10.8 MW S29, T18N R20E
Steamboat Geothermal, LLC/ORMAT Nevada Inc.
Steamboat 2, 3 Power Plants (1992) 47.8 MW
Steamboat Development Corp./ORMAT Nevada Inc.

- ♦ ORMAT Nevada, Inc. State permit #710, API #27-031-90247 for Injection well 23-33 issued August 2007; Located in the SW/4 NW/4 of Section 33, T18N R20E; PTD 2500'; Injection well location in Steamboat Springs, Washoe County, Nevada; Permitted location.
- ♦ ORMAT Nevada, Inc.; State Permit #708, API #27-031-90246 for Injection well 14-33 issued August 2007; Located in the SW/4 NW/4 of Section 33, T18N R20E; PTD 2500'; Injection well location in Steamboat Springs, Washoe County, Nevada; Spud Aug 10, 2007 with DHS rig #14; TESTING.
- ♦ ORMAT Nevada, Inc.; Permit #670, API #27-031-90245 for Production well #43-33 issued Nov 2006; SE/4 NW/4, Section 33, T18N R20E; Production well location in the Steamboat Hot Springs area, Washoe County, Nevada; PTD 1000'; Spud Sep 1, 2007 with GeoDrill rig #1; DRILLING.
- ♦ Galena III power plant is under construction. Pipelines and new wells are being drilled to supply this plant, estimated to have a capacity of 20 MW
- ♦ ORMAT Nevada, Inc.; Permit #669, API #27-031-90244 for Production well #33-33 issued Nov 2006; SE/4 NW/4 Section 33, T18N R20E; Production well located in the Steamboat Hot Springs area, Washoe County, Nevada; PTD 1000'; Permitted location.
- ♦ ORMAT Nevada, Inc.; Permit #668, API # 27-031-90243 for Production well #44A-32 issued Nov 2006; SE/4 NW/4 Section 32, T18N R20E; Production well located in the Steamboat Hot Springs area, Washoe County, Nevada; PTD 1000'; Spud June 21, 2007 with DHS rig #14; TD July 6, 2007; Testing.

Steamboat Hills Power Plant (1988) 14.5 MW S5, 6, T17N R20E
Galena II (2007) 13.5 MW S5, 6 T17N R20E
Steamboat Hills, LP/ORMAT Nevada Inc.

- ♦ Steamboat Hills Flash Plant is currently undergoing repowering and new construction. A binary bottoming cycle is now on-line and will use the heat from the flash plant injection steam to produce approximately 6 MW.
- ♦ A new binary plant, Galena II, is newly under construction and has a nameplate capacity of 13.5 MW. New wells have been drilled and a new pipeline delivery system is under construction.
- ♦ Steamboat Hills, LP: Permit #576 issued Mar 28, 2005, API #27-031-90230 for Industrial Production Well 66-32 located in NW/4 SW/4 Section 32, T18N R20E. Proposed depth is 1500'; Permitted location.
- ♦ ORMAT NEVADA, INC. (Steamboat Hills LP): State Permit #561, API 27-031-90227 for Industrial Production Well #83B-6 issued Sep 10, 2004; NE/4 NE/4; Section 6, T17N R20E; Steamboat Springs, Washoe County, Nevada; PTD 3200'; to serve as production well for existing power plant. Spud May 5, 2007 with DHS rig #14; TD June 13, 2007; COMPLETED AND TESTING.

Stillwater Power Plant (1989)**21.0 MW****S1, T19N R30E****Enel - AMP Resources (Stillwater) LLC**

- ◆ Enel Stillwater LLC State Permit #705 issued July 2007 for Injection Well #17-36; API #27-001-90338; Located in the Stillwater Geothermal Project Area; SW/4 SW/4 of Section 36, T20N R30E, Churchill County, Nevada. The proposed depth of the well is 1400'. Permitted location.
- ◆ Enel Stillwater LLC State Permit #706 issued July 2007 for Injection Well #26-7; API #27-001-90339; Located in the Stillwater Geothermal Project Area; SW/4 SW/4, Section 7, T19N R31E, Churchill County, Nevada. The proposed depth of the well is 1400'. Permitted location.
- ◆ Enel Stillwater LLC State Permit #707 issued July 2007 for Injection Well #63-7; API #27-001-90340; Located in the Stillwater Geothermal Project Area; SW/4 NE/4, Section 7, T19N R31E, Churchill County, Nevada. The proposed depth of the well is 1400'. Permitted location.
- ◆ June 13, 2007 – ENEL Salt Wells, LLC Approved Project Area Permit for Salt Wells project, NDOM Permit # 698. Permit includes 8 production wells, 8 injection wells, and 10 observation wells in T17N R30E Sections 23, 24, 25, 26, 35, and 36 on Federal leases.
- ◆ March 20, 2007 – ENEL, Rome, Italy announced the acquisition of AMP Resources, LLC, which includes 5 geothermal development projects in Nevada, California, and Utah. ENEL North America, Inc. (Andover, Mass) is a subsidiary of ENEL. Amp's geothermal development project areas in Nevada included Stillwater (in operation) and Salt Wells. - <http://www.enel.it/northamerica/boxhp.asp?IdDoc=1500576>
- ◆ May 10, 2006 – PUC Approved a Permit to Construct the Stillwater 2 Geothermal Plant. The PUC approved the permit for a 26MW power plant to be built approximately 15 miles east of Fallon. AMP proposed to build the binary cycle power plant to replace the existing 7MW plant. The new plant is scheduled to be online by the end of 2007. A long-term power purchase agreement will be filed with the PUC for approval - <http://pucweb1.state.nv.us/PUCN/CommissionInfo.aspx?Util=PressReleases>
- ◆ Enel Stillwater LLC State Permit #631 issued December 5, 2005 for Injection Well 11-1; API #27-031-90322. Located in the NW/4 NW/4 of Section 1 T19N R31E, Churchill County. The proposed depth of well is 2100'. Stillwater Geothermal Project Area Permit #579. Spud Sep 6, 2007 with Barbour Corp rig #43; DRILLING.

Soda Lake No. 1 Power Plant (1987)**5.1 MW****S33, T20N R28E****Soda Lake No. 2 Power Plant (1991)****21.0 MW****Constellation Operating Services****Wabuska Power Plant (1984)****2.2 MW****S15, 16, T15N R25E****Homestretch Geothermal LLC****GEOHERMAL PRODUCTION FOR 2006**

Plant		Output Gross MWH	Output (Sales) MWH	Nameplate Capacity
Beowawe		132,747	113,935	16.6
Brady		179,464	119,842	26.1
Dixie		550,140	500,449	62
Empire		35,571	25,604	4.8
Soda Lake				
	Soda Lake 1	27,075	18,328	5.1
	Soda Lake 2	73,756	49,552	21
AMP Resources				
	Stillwater	84,727	49,352	21
ORMAT				
	SBI	24,179	14,067	8.4
	SBIA	13,534	11,676	2.4
	SBII	97,883	59,007	23.9
	SBIII	141,003	94,582	23.9
Homestretch				
	Wabuska I & II	8,234	5,120	2.2

Brady Power Partners

Desert Peak	20,786	17,404	12.5
Desert Peak II	43,954	35,279	23

ORMAT

Steamboat Hills	71,906	63,265	14.5
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ORMAT

Galena	178,626	155,536	30
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TOTALS

1,683,585	1,332,999	297.4
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DIRECT USE OPERATIONS

Empire Group LLC; Empire, Washoe County, Nevada

- ◆ This drying facility is currently not in operation.

Gilroy Foods, A ConAgra Food Ingredients Company; Onion Dehydration Plant; Fernley, Nevada

<http://www.conagrafoodingredients.com/products/gilroyfoods.jsp>

- ◆ Seasonal onion dehydration processing operations May – October annually.

OTHER ACTIVE AREAS

Gerlach KGRA, T32-33N R23-24E, Washoe County

- ◆ Gerlach Green Energy, LLC; Permit #633, API #27-031-90239 for Industrial Production Well 68-3 issued January 12, 2006; located in the SW/4 SE/4 of Section 3, T32N R23E, Washoe County. The proposed depth of well is 6000'; Planned use of the resource is for electrical power generation and potential direct use applications; Moved in Welsco Drill Rig; Set Conductor; Drilled to an undisclosed shallow depth; encountered drilling problems; Released rig Feb 2007; Idle.

Pyramid Lake Paiute Reservation, T27-28N R19-20E, Washoe County

- ◆ Pyramid Lake Paiute Tribe, Pyramid Lake Energy Project for the development of geothermal resources on the Pyramid Lake Paiute Reservation situated in Washoe, Lyon, and Storey counties. The project includes geophysical exploration surveys, gravity and magnetic, mapping, thermal gradient drill holes and slim holes. Seven 500' thermal gradient hole locations have been proposed in the area of T27-28N R19-20E, Washoe County. Drilling began in November 2005, Welsco Drilling Corp., and 3 gradient holes were drilled as of March 2006.

Salt Wells KGRA, T16-17N R30-31E, Churchill County

- ◆ June 13, 2007 – ENEL Salt Wells, LLC Approved Project Area Permit for Salt Wells project, NDOM Permit # 698. Permit includes 8 production wells, 8 injection wells, and 10 observation wells in T17N R30E Sections 23, 24, 25, 26, 35, and 36 on Federal leases.
- ◆ March 20, 2007 – Enel, Rome, Italy announced the acquisition of AMP Resources, LLC, which includes 5 geothermal development projects in Nevada, California, and Utah. Enel North America, Inc. (Andover, Mass) is a subsidiary of Enel. Amp's geothermal development project areas in Nevada included Stillwater (in operation) and Salt Wells. - <http://www.enel.it/northamerica/boxhp.asp?IdDoc=1500576>

Naval Air Station, Fallon, Nevada, Churchill County, T18N R29E

- ◆ January 24, 2006 - ORMAT Technologies has entered into an agreement with the U. S. Navy to build a geothermal power plant near the Naval Air Station in Fallon. They announced a 50-year contract to develop geothermal energy on the NAS property. Following an exploratory drilling program, an estimated 30-megawatt power plant will be constructed near the southeast border of the base. Energy from the plant would be sold through a power purchase agreement with Sierra Pacific Power Company. The Navy will receive 5 percent of gross income from sales for the first 20 years, and 15 percent thereafter. See Lahontan Valley News article; Jan 24, 2006 – by Burke Wasson, bwasson@lahontanvalleynews.com - <http://www.lahontanvalleynews.com/article/20060124/News/101240027>

Carson Lake Geothermal Area, T18N R30E, Churchill County

- February 8, 2007 – The Nevada PUC has approved the renewable energy contract for Ormat Nevada's 24 MW Carson Lake geothermal power project. The 20-year PPA between Ormat and Nevada Power Company for the sale of energy from the Carson Lake power plant to be built in Churchill County is projected to be online late 2009.

Carson Lake Geothermal Area, T17N R30E, Churchill County

- Carson Lake Basin Project, LLC (Vulcan); Geothermal Project Area Permit #704 issued July 26, 2007; Geothermal project allowing 14 production wells @ TD 10,000', 7 injection wells @ TD 10,000', 7 observation wells @ TD 5000'; in Sections 1-4, 9, 10, 14-17, 20, 21, 28, 32, 33 T17N R30E and Sections 4, 9, 11 T16N R30E, Carson Lake, Churchill County, Nevada; Geothermal Project Area permit.
- Carson Lake Basin Project, LLC (Vulcan) "Observation Well 86-15"; State permit #683 issued Feb 2007; API #27-001-90330; Located in the NE/4 SE/4 of Section 15, T17N R30E, Churchill County, Nevada. Projected total depth of the well is 2500'; SPUD July 10, 2007 with Boom Drilling rig; DRILLING.
- Carson Lake Basin Project, Bend Oregon (Vulcan Power); Ten observation well locations permitted Feb 16, 2007; T17N R30E, Churchill County, NV; PTD 2500'. – <http://www.vulcanpower.com/>

Revised well numbers:

Obs Well 51-20	Permit #678	API #27-001-90325	NE/4 NW/4 Section 20
Obs Well 35-11	Permit #679	API #27-001-90326	SW/4 NW/4 Section 11
Obs Well 58-9	Permit #680	API #27-001-90327	NW/4 NE/4 Section 16
Obs Well 56-14	Permit #681	API #27-001-90328	NW/4 SE/4 Section 14
Obs Well 34-33	Permit #682	API #27-001-90329	SE/4 NW/4 Section 33
Obs Well 86-15	Permit #683	API #27-001-90330	NE/4 SE/4 Section 15
Obs Well 24-21	Permit #684	API #27-001-90331	SW/4 NW/4 Section 21
Obs Well 17-16	Permit #685	API #27-001-90332	SW/4 SW/4 Section 16
Obs Well 47-11	Permit #686	API #27-001-90333	NW/4 NE/4 Section 14
Obs Well 62-15	Permit #687	API #27-001-90334	NW/4 NE/4 Section 15

Grass Valley Geothermal Area, T24N R47E, Lander County

- May 24, 2007 – Ormat announced that it has signed a 20-year Power Purchase Agreement with Nevada Power Company for the sale of energy to be produced from the Grass Valley Geothermal Power Plant to be built in Lander County, northern Nevada. The plant is expected to supply between 18-30 megawatts and to be online by late 2010. – <http://www.ormat.com/news-and-events/new-releases/>.
- Ormat Nevada Inc; Permit #661 issued May 18, 2006 for Observation well #66-21; API #27-015-90029; NW/4 SE/4 Section 21, T24N R47E; Grass Valley, Lander County, Nevada; PTD 3000'; Permitted location.
- Ormat Nevada Inc; Permit #660 issued May 18, 2006 for Observation well #67-16; API #27-015-90028; SW/4 SE/4 Section 16, T24N R47E; Grass Valley, Lander County, Nevada; PTD 3000'; Moved in Welsco Drilling rig Feb 2007; Drilling completed March 2007; Shut in July 2007.
- Ormat Nevada Inc; Permit #659 issued May 18, 2006 for Observation well #11-15; API #27-015-90027; NW/4 NW/4 Section 15, T24N R47E; Grass Valley, Lander County, Nevada; PTD 3000'; Permitted location.

Hot Sulfur Springs (Tuscarora), T41N R52E, Elko County

- TG Power, LLC, Houston, TX; Permit #689 issued March 20, 2007 for Industrial Production well #57-8; API #27-007-90032; NW/4 SE/4 Section 8, T41N R52E; Tuscarora – Hot Sulfur Springs, Elko County, Nevada; PTD 4000'; SPUD Aug 21, 2007 with LAGS Exploration rig; DRILLING.
- TG Power, LLC, Houston, TX; Permit #690 issued March 20, 2007 for Industrial Production well #72-8; API #27-007-90033; NE/4 NE/4 Section 8, T41N R52E; Tuscarora – Hot Sulfur Springs, Elko County, Nevada; PTD 4000'; Drilled July 2007 with LAGS Exploration rig; TESTING.
- TG Power, LLC, Houston, TX; Permit #674 issued Nov 15, 2006 for Observation well #87-5; API #27-007-90030; SE/4 SE/4 Section 5, T41N R52E; Tuscarora – Hot Sulfur Springs, Elko County, Nevada; PTD 3500'; Lang Drilling Co rig Spud December 2, 2006; reached TD, Rig released. Analyzing data.
- TG Power, LLC, Houston, TX; Permit #675 issued January 18, 2007 for Production well #65-8; API #27-007-90031; NE/4 SE/4 Section 8, T41N R52E; Tuscarora – Hot Sulfur Springs, Elko County, Nevada; PTD 4000'; Black Gold 20x rig. Spud Feb 4, 2007; Drilled to undisclosed depth, encountered rig problems, released rig; Moved in replacement rig, Lags Exploration rig mobbed in; Flow tested and requested to deepen to 4500'; Drilled to TD tested and requested new TD of 5000'; Successful completion, July 2007; TESTING. - http://www.tgpowerllc.com/Hot_Sulphur_Springs.html

- ◆ TG Power, LLC, Houston, TX; Permit #673 issued Nov 13, 2006; Geothermal project area encompassing Sections 4-9, 16-18 in T41N R52E and Sections 32-33 in T42N R52E, Tuscarora – Sulfur Hot Springs, Elko County; The permit allows 12 production wells with estimated depth of 4000', 6 injection wells with estimated depth of 4000', and 6 observation wells with estimated depth of 4000'. The wells in the project area will supply a 48 MW geothermal binary power plant.

Rye Patch/Humboldt House KGRA, T31-32N R32-34E, Pershing County

- ◆ **Rye Patch Power Plant, 12 MW, 90% complete**

Black Warrior Peak, T23N R25E, Washoe County

- ◆ Vancouver, B.C. - Nevada Geothermal Power Inc. (NGP), NORAMEX, announced that it has acquired 7 square miles of private land and has applied for a one section federal geothermal lease south and east of Black Warrior Peak, Washoe County, Nevada. The leases are on private land and are subject to a 3.5% royalty on gross revenue from electricity sales; however, NGP can purchase the royalty for US\$1,000,000. Leases include surface and water rights. <http://www.nevadageothermal.com/s/BlackWarrior.asp>

Blue Mountain Geothermal Area, T36N R34E, Humboldt County

- ◆ Feb 8, 2007 – Nevada PUC approved the 20-year Power Purchase Agreement between Nevada Power Company and Nevada Geothermal Power Company for up to 35 MW of geothermal power to be produced from a new power plant to be constructed within the Blue Mountain project area. The plant is projected to be online in 2009. The "Faulkner 1 Power Plant" will be a zero-emission, water-cooled, binary geothermal plant. - <http://www.nevadageothermal.com/s/Home.asp>
- ◆ Nevada Geothermal Power Company; Permit #617 issued Sep 22, 2005 for Industrial Production well #26A-14; API #27-013-90045; Located in NW/4 SW/4, Section 14, T36N R34E; Proposed total depth is 6000'; Production well location in the Blue Mountain geothermal project area 605PA; Humboldt County, Nevada; WDC Drilling Co. spud May 23, 2006; Set conductor and surface casing and moved in Calco Oil Industries rig #14; Completed September 14, 2006. Nevada Geothermal Power has reported 185 deg C (365F) production temperature from a recent 60 hour flow test at 650,000#/hr (1300gpm); COMPLETION.
- ◆ Nevada Geothermal Power Company; Permit #618 issued Sep 22, 2005 for Industrial Production well #38-14; API #27-013-90046; Located in SW/4 SW/4, Section 14, T36N R34E; Proposed total depth is 6000'; Production well location in the Blue Mountain geothermal project area 605PA; Humboldt County, Nevada; Conductor set using Mighty Mole auger rig 5-9-06. Surface casing set using WDC #161 rig 7/3/06. Drilled out from surface casing with Black Gold Rig #20 on October 10, 2006; Drilled to 2006'; Operations suspended due to drilling equipment failure; Moved in ThermaSource rig 101 to resume operations and deepen well to new TD of 5000'; Completed July 2007 to TD 5426'; TESTING.
- ◆ Nevada Geothermal Power Company; State Permit #639 issued March 24, 2006 for Industrial Production well #34-23; API #27-013-90051; Located in SE/ NW/4, Section 23, T36N R34E; Proposed total depth is 6000'; Blue Mountain geothermal project area 605PA, Humboldt County, Nevada; Conductor set 6/5/06 using Mighty Mole auger rig. CORRECTED WELL NUMBER.
- ◆ Nevada Geothermal Power Company; State Permit #640 issued March 24, 2006 for Industrial Production well #66-14; API #27-013-90052; Located in NW/ SE/4, Section 14, T36N R34E; Proposed total depth is 6000'; Blue Mountain geothermal project area 605PA, Humboldt County, Nevada; Conductor set 7/5/06 using Mighty Mole auger rig. Surface casing set 7/25/06 with WDC rig #161.
- ◆ Nevada Geothermal Power Company; State Permit #635 issued February 24, 2006 for Industrial Production well #23-14; API #27-013-90048; Located 3200' north of well #38-14 in SW/ NW/4, Section 14, T36N R34E; Proposed total depth is 6000'; Blue Mountain geothermal project area 605PA, Humboldt County, Nevada; SPUD July 23, 2007 with ThermaSource rig #101; TESTING.
- ◆ Nevada Geothermal Power Company; State permit #636 issued February 24, 2006 for Industrial Production Well #26-14; API #27-013-90049; Located in NW/ SW/4, Section 14, T36N R34E; Proposed total depth is 6000'; Blue Mountain geothermal project area 605PA, Humboldt County, Nevada; Permitted location.
- ◆ Nevada Geothermal Power Company; State permit #637 issued February 24, 2006 for Industrial Production Well #28-14; API #27-013-90050; Located in SW/ SW/4, Section 14, T36N R34E; Proposed total depth is 6000'; Blue Mountain geothermal project area 605PA, Humboldt County, Nevada; Permitted location.
- ◆ Nevada Geothermal Power Company; Permit #619 issued Sep 22, 2005 for Industrial Production well #63-14; API #27-013-90047; Located in SW/4 NE/4, Section 14, T36N R34E; Proposed total depth is 2000'; Production well location in the Blue Mountain geothermal project area; 605PA; Humboldt County, Nevada; Conductor set 7-11-06 using Mighty Mole auger rig.

- ◆ Nevada Geothermal Power Company; Project Area Permit 605 issued July 25, 2005; Allows for a total of 8 production wells with estimated depths of 6,000' and 2000'. The project area encompasses Sections 1, 10-15, 22-26, T36N R34E.
- ◆ NORAMEX CORPORATION change of company name to NEVADA GEOTHERMAL POWER COMPANY effective November 2005.

Buffalo Valley Geothermal Area, T29N, R41E, Lander County

- ◆ Ormat Nevada, Inc.; Geothermal Unit Agreement application filed with the BLM, April 18, 2007; SN 083484X T29N R41E, Sections 13,14,22-27,34,35; 6400 acres, Buffalo Valley, Lander County, Nevada, Case pending.
- ◆ Ormat Nevada, Inc; State Permit #694 issued April 26, 2007 Thermal Gradient well #32-25; Located in SE/4 NW/4 of section 25, T29N R41E; Buffalo Valley, Lander County, Nevada; PTD 1000'; New permitted location.
- ◆ February 8, 2007 – Nevada PUC approved the renewable energy contract for Ormat Nevada's 24 MW Buffalo Valley project. The 20-year Power Purchase Agreement between Ormat and Nevada Power Company is for the sale of energy from the Buffalo Valley geothermal power plant to be built in Lander County and expected to be online in 2009.
- ◆ August 3, 2006 – Ormat announced that they have signed a 20-year power purchase agreement with Nevada Power Company for the sale of energy to be produced from the Buffalo Valley geothermal power plant to be built in Lander County. The Buffalo Valley power plant is projected to be online late 2009.
- ◆ Geothermal geophysical exploration application filed by Ormat Nevada with the BLM 7/14/2006, T29N R41E, Sections 22,24-27,34,35 Buffalo Valley, Lander County, Serial #82317.
- ◆ Ormat Nevada, Inc; State Permits issued May 5, 2006 for 10 temperature gradient holes, BV1 – BV10; Buffalo Valley, Lander County, Nevada; PTD 500'; NEW LOCATIONS:
 - #644; API 27-015-90017; TG BV-1; SW/4 SW/4 Sec 22, T29N R41E
 - #645; API 27-015-90018; TG BV-2 (23-27); SW/4 NW/4 Sec 27, T29N R41E; Spud May 11, 2007 WDC rig 122; Completed drilling May 13, 2007.
 - #646; API 27-015-90019; TG BV-3 (84-27); NE/4 SE/4 Sec 27, T29N R41E; Spud May 14, 2007 WDC rig 122; Completed drilling May 16, 2007.
 - #647; API 27-015-90020; TG BV-4 (52-34); SE/4 SE/4 Sec 34, T29N R41E; Spud May 1, 2007 Welsco Drilling rig 6; Completed drilling May 4.
 - #648; API 27-015-90021; TG BV-5; NW/4 SE/4 Sec 35, T29N R41E
 - #649; API 27-015-90022; TG BV-6; NE/4 NW/4 Sec 26, T29N R41E
 - #650; API 27-015-90023; TG BV-7 (17-25); SW/4 SW/4 Sec 25, T29N R41E; Spud May 7, 2007 WDC rig 122; Completed drilling May 10, 2007.
 - #651; API 27-015-90024; TG BV-8 (75-25); NE/4 SE/4 Sec 25, T29N R41E; Spud May 7, 2007 Welsco Drilling rig 6; Completed drilling May 11, 2007.
 - #652; API 27-015-90025; TG BV-9; SE/4 SE/4 Sec 24, T29N R41E
 - #653; API 27-015-90026; TG BV-10 (75-24); NE/4 SE/4 Sec 24, T29N R41E; Spud May 14, 2007 Welsco Drilling rig 6; Completed drilling.
- ◆ Ormat Nevada, Inc; Permit #664 issued May 18, 2006 for Observation well #17-25; API #27-015-90032; SW/4 SW/4 Section 25, T29N R41E, Buffalo Valley, Lander County, Nevada; PTD 3000'; Permitted location.
- ◆ Ormat Nevada, Inc; Permit #662 issued May 18, 2006 for Observation well #27-22; API #27-015-90030; SW/4 SW/4 Section 22, T29N R41E, Buffalo Valley, Lander County, Nevada; PTD 3000'; Permitted location
- ◆ Ormat Nevada, Inc; Permit #665 issued May 18, 2006 for Observation well #42-26; API #27-015-90033; NE/4 NW/4 Section 26, T29N R41E, Buffalo Valley, Lander County, Nevada; PTD 3000'; Permitted location.
- ◆ Ormat Nevada, Inc; Permit #663 issued May 18, 2006 for Observation well #86-24; API #27-015-90031; NE/4 SE/4 Section 24, T29N R41E, Buffalo Valley, Lander County, Nevada; PTD 3000'; Permitted location.

Pumpnickel Valley Geothermal Area, T33N R40E, Humboldt County

- ◆ Nevada Geothermal Power Company; Geothermal Geophysical Exploration permit application filed with the BLM March 12, 2007; T 33N R40E, Sections 3-5,8-10,16,28,32-34; Pumpnickel Valley geothermal area, Humboldt County, Nevada; Pending.
- ◆ Nevada Geothermal Power to begin drilling in Pumpnickel Geothermal Area - NGP announced in January that 3 temperature gradient holes and a seismic survey are planned at the Pumpnickel Geothermal area. Sierra Geothermal Power will fund the exploration to acquire a 50% interest in the project.
- ◆ Nevada Geothermal Power Company; Phase I of the drilling program for the Pumpnickel Geothermal Project was completed with the drilling of 5 thermal gradient holes. The cuttings were sent to the NBMG and water samples sent to Thermochem labs. A summary report is expected.

- ◆ Nevada Geothermal Power Company; Permit #608 issued August 8, 2005 for Thermal Gradient Well PVTG-N, API #27-031-90041, Located in NW/4 SW/4 Section 4, T33N R40E, Humboldt County; Proposed total depth is 1640'; This location is on fee land.
- ◆ Nevada Geothermal Power Company; Permit #604 issued July 5, 2005 for Thermal Gradient Well PVTG-A, API #27-013-90039, Located in NW/4 NW/4 Section 9, T33N R40E, PTD 1000'.
- ◆ Nevada Geothermal Power Company; Permit #603 issued July 5, 2005 for Thermal Gradient Well PVTG-B, API #27-013-90038, Located in SW/4 NE/4 Section 5, T33N R40E, PTD 1000'.
- ◆ Nevada Geothermal Power Company; Permit #602 issued July 5, 2005 for Thermal Gradient Well PVTG-K, API #27-013-90037, Located in SW/4 SW/4 Section 27, T33N R40E, PTD 1000'.
- ◆ Nevada Geothermal Power Company; Permit #598 issued July 5, 2005 for Thermal Gradient Well PVTG-G, API #27-013-90033, Located in SE/4 NW/4 Section 33, T33N R40E, PTD 1000'.
- ◆ Nevada Geothermal Power Company; Permit #596 issued July 5, 2005 for Thermal Gradient Well PVTG-I, API #27-013-90031, Located in NW/4 NE/4 Section 33, T33N R40E, PTD 1000'.

Hazen, Nevada, KGRA T20-21N R25-26E, Churchill and Lyon Counties

- ◆ Geothermal Rail Industrial Development LLC; Permit #638 issued March 13, 2006, API #27-019-90021 for Industrial Production Well Hazen 11-19, Location NW/4 NW/4, Section 19, T20N R26E, Lyon County; Proposed total depth 1550'; Permitted location.
- ◆ Geothermal Rail Industrial Development LLC; 4 thermal gradient holes (TD 500'-800') were drilled in sections 17 and 19, T20N R26E by Welsco Drilling Corp. in Sep and Oct 2005.
- ◆ Geothermal Rail Industrial Development project (GRID-USA) announced. Plans for alternative energy industrial park east of Reno, Nevada. Contact 1025 Ridgeview Dr., Ste. 100, Reno, NV 89509, (775) 826-3333 or (866) GRIDUSA. See website - <http://www.gridusa.biz/>

Emigrant Geothermal Project, T1S R36E, Esmeralda County

- ◆ Esmeralda Energy Permit #643 issued May 5, 2006 for Observation Well Emigrant 17-31, API #27-009-90040; SW/4 SW/4 Section 31 T1N R37E, Fish Lake Valley, Esmeralda County; PTD 4000'; Spud 13 October 2006 with Boart Longear drill rig, Reached TD on 6 November 2006 at 2938'; Company reports "commercial temperatures" at TD; Approval to shut-in for 6 months.

Jersey Valley Geothermal Area; T27N, R40E, Pershing County

- ◆ Ormat Nevada Inc. State Permit #703, API #27-027-90075 for Production well 44-28 issued July 11, 2007; Located in the SE/4 NW/4 of Section 28, T27N R40E; PTD 7000'; Jersey Valley, Pershing County, Nevada; Permitted location.
- ◆ Ormat Nevada Inc. State Permit #702, API #27-027-90074 for Production well 81-28 issued July 11, 2007; Located in the NE/4 NE/4 of Section 28, T27N R40E; PTD 7000'; Jersey Valley, Pershing County, Nevada; Permitted location.
- ◆ Ormat Nevada Inc. State Permit #701, API #27-027-90073 for Production well 86-29 issued July 11, 2007; Located in the NE/4 SE/4 of Section 29, T27N R40E; PTD 7000'; Jersey Valley, Pershing County, Nevada; Permitted location.
- ◆ Ormat Nevada Inc. State Permit #700, API #27-027-90072 for Production well 33-33 issued July 11, 2007; Located in the SE/4 NW/4 of Section 33, T27N R40E; PTD 7000'; Jersey Valley, Pershing County, Nevada; Permitted location.
- ◆ Ormat Nevada, Inc.; Jersey Valley Geothermal Exploration Project, T27N R40E, Pershing County, Nevada, has been approved by the BLM. The project proposed by Ormat Nevada includes up to 5 well pads and drilling 3-5 observation wells and 3-5 production wells. The DR/FONSI was issued May 24, 2007, http://www.blm.gov/nv/st/en/fo/wfo/blm_information/nepa.2.html
- ◆ Ormat Nevada, Inc.; Geothermal Unit Agreement application approved by the BLM, May 10, 2007; SN 083483 T27N R40E, Sections 15,16,21,22,27; 7190 acres, Jersey Valley, Pershing County, Nevada; Authorized.
- ◆ Ormat Nevada, Inc.; Geothermal Unit Agreement application filed with the BLM, March 27, 2007; SN 083483X T27N R40E, Sections 3-5,15,16,20-22,27,32-34; 7190 acres, Jersey Valley, Pershing County, Case pending.
- ◆ Ormat Nevada, Inc; State Permit #699 issued July 11, 2007, API #27-027-90071 for Production well #18-27; Located in the SW/4 SW/4 of Section 27, T27N R40E, Jersey Valley, Pershing County, Nevada; PTD 7000'; Spud Sep 4, 2007 with GeoDrill rig; DRILLING.
- ◆ Ormat Nevada, Inc; Permit #658 issued May 18, 2006 for Observation well #33-33; API #27-027-90070; SE/4 NW/4 Section 33, T27N R40E, Jersey Valley, Pershing County, Nevada; PTD 3000'; Permitted location.
- ◆ Ormat Nevada, Inc; Permit #654 issued May 18, 2006 for Observation well #44-28; API #27-027-90066; SE/4 NW/4 Section 28, T27N R40E, Jersey Valley, Pershing County, Nevada; PTD 3000'; Permitted location.

- ◆ Ormat Nevada, Inc; Permit #655 issued May 18, 2006 for Observation well #81-28; API #27-027-90067; NE/4 NE/4 Section 28, T27N R40E, Jersey Valley, Pershing County, Nevada; PTD 3000'; Permitted location.
- ◆ Ormat Nevada, Inc; Permit #657 issued May 18, 2006 for Observation well #86-29; API #27-027-90069; NE/4 SE/4 Section 29, T27N R40E, Jersey Valley, Pershing County, Nevada; PTD 3000'; Permitted location.
- ◆ Ormat Nevada, Inc; Permit #656 issued May 18, 2006 for Observation well #88-28; API #27-027-90068; SE/4 SE/4 Section 28, T27N R40E, Jersey Valley, Pershing County, Nevada; PTD 3000'; Location change to 18-27. DRILLING.

Spencer Hot Springs Area; T17N R45E, Lander County

Ruby Valley/Ruby Lake, Sulfur Hot Springs, T31N R59E, Elko County

Reese River Geothermal Area; T23-24N R43E, Lander County

- ◆ Sierra Geothermal Power; Permit #715 issued September 11, 2007 for TG Well #13-4; API #27-015-90040; SE/4 SW/4 Section 33, T24N R43E, Exploratory observation well location in the Reese River geothermal prospect area, Lander County, Nevada; PTD 6000'; Permitted location.
- ◆ Sierra Geothermal Power; Permit #714 issued September 11, 2007 for TG Well #52-4; API #27-015-90039; SW/4 NE/4 Section 4, T23N R43E, Exploratory observation well location in the Reese River geothermal prospect area, Lander County, Nevada; PTD 6000'; Permitted location.
- ◆ Sierra Geothermal Power; Permit #713 issued September 11, 2007 for TG Well #25-4; API #27-015-90038; NW/4 SW/4 Section 4, T23N R43E, Exploratory observation well location in the Reese River geothermal prospect area, Lander County, Nevada; PTD 6000'; Permitted location.
- ◆ Sierra Geothermal Power; Permit #712 issued September 11, 2007 for TG Well #88-5; API #27-015-90037; SE/4 SE/4 Section 5, T23N R43E, Exploratory observation well location in the Reese River geothermal prospect area, Lander County, Nevada; PTD 6000'; Permitted location.
- ◆ Sierra Geothermal Power; Permit #711 issued September 11, 2007 for TG Well #38-33; API #27-015-90036; SW/4 NW/4 Section 4, T23N R43E, Exploratory observation well location in the Reese River geothermal prospect area, Lander County, Nevada; PTD 6000'; Permitted location.
- ◆ Sierra Geothermal Power; Permit #667 issued August 15, 2006 for Observation Well #56-4; API #27-015-90034; NW/4 SE/4 Section 4, T23N R43E, Exploratory observation well location in the Reese River geothermal prospect area, Lander County, Nevada; PTD 4000'; GL 5680'; Spud with Great Valley rig #2000 on Feb 1, 2007; Drilling completed, March 20, 2007 TD 3930'. - <http://www.integratir.com/newsrelease.asp?news=2130982872&ticker=V.SRA&lang=EN&ny=on&title=null>
- ◆ Cayley Geothermal Power filed a geothermal geophysical exploration application with the BLM on 7/14/2006; T23N R43E Sections 4-5, T24N R43E Sections 32-33, Reese River, Lander County; Serial #82316.
- ◆ Sierra Geothermal Power Acquires Majority in Cayley Geothermal: Sierra Geothermal Power announced on 11 December 2005 that it acquired a majority interest in Cayley Geothermal. Cayley originally permitted the 56-4 observation well in Reese River Valley, Lander County Nevada.

Rock Hill Geothermal Area; T3-4N R36E, Esmeralda County

- ◆ Ormat Nevada, Inc; Geothermal Geophysical Exploration permit application filed with the BLM April 26, 2007; T3N R36E Sections 2,3,10,11 & T4N R36E Section 27; Rock Hill geothermal area, Esmeralda County, Nevada; Pending.

Big Smoky Valley Geothermal Area; T12-14N R43E, Nye County, Nevada

- ◆ Trail Canyon Geothermal No 1 SV-02, LLC (Raser); Geothermal Project Area Permit #709 issued August 28, 2007; Geothermal project allowing 12 production wells @ TD 2500', 8 injection wells @ TD 2500', and 4 observation wells @ TD 4000' in Sections 27, 28, 32-34 T14N R43E, Big Smoky Valley, Nye County, Nevada. The project is for the purpose of supplying geothermal fluids for two 10 MW binary power plants; NEW PROJECT PERMIT.
- ◆ June 12, 2007 – PUC of Nevada, Notice of Application filed by Truckee Geothermal No. 1 SV-01, LLC requesting a Permit to Construct a new 10 MW renewable energy geothermal power plant and associated facilities to be located in Big Smoky Valley, Nye County, Nevada. Written statements of position on the project must be submitted by July 5, 2007. - <http://pucweb1.state.nv.us/PUCN/DktInfo.aspx?Util=Renewable> (See Docket 07-06009)

- Truckee Geothermal No. 1 SV-01, LLC, Provo UT (Raser); State permit #695, API #27-023-90134 issued May 15, 2007 for Industrial Production Well #54-09 located in SW/4 NE/4 Section 9, T12N R43E; PTD 4000'; Big Smoky Valley, Nye County, Nevada; New permitted location.
- Truckee Geothermal No. 1 SV-01, LLC, Provo UT (Raser); State permit #696, API #27-023-90135 issued May 15, 2007 for Industrial Production Well #68-04 located in SW/4 SE/4 Section 4, T12N R43E; PTD 4000'; Big Smoky Valley, Nye County, Nevada; Spud Jul 11, 2007 with Layne Drilling rig; DRILLING.
- Truckee Geothermal No. 1 SV-01, LLC, Provo UT (Raser); State permit #697, API #27-023-90136 issued May 15, 2007 for Industrial Production Well #68-09 located in SW/4 SE/4 Section 9, T12N R43E; PTD 4000'; Big Smoky Valley, Nye County, Nevada; New permitted location.
- Truckee Geothermal No. 1 SV-01, LLC, Provo UT (Raser); Geothermal Project Area Permit #692 issued April 24, 2007; Geothermal project allowing 11 production wells @ TD 2500', 8 injection wells @ TD 2500', and 4 observation wells @ TD 4000' in Sections 2-4, 8-10, 16 & 17 T12N R43E and Sections 27,28,33 & 34 in T13N R43E. The project is for the development of two 10 MW geothermal power plants in Big Smoky Valley, Nye County Nevada. - <http://www.rasertech.com/geothermal.html>
- Raser Technologies announced that they have secured geothermal rights to Nevada properties owned by Truckee River Ranches, LLC, north of Las Vegas, Nevada. - <http://www.rasertech.com/news/scripts/full-news.php?1167851580>

Recent BLM Geothermal Lease Activity:

- For more information on BLM leases in Nevada, see the website: <http://www.blm.gov/lr2000>
Call (775) 861-6500 for information.

Lease #	Lessee	Tsp Rge	Sections	Acres	Date	Area
74249	Vulcan Power Co issued	T05N R28E		2,3,4 1860.19	8/15/2007	Aurora, Mineral County
74250	Vulcan Power Co issued	T05N R28E		9,10 1199.00	8/15/2007	Aurora, Mineral County
74253	Vulcan Power Co issued	T06N R28E		27,28 1280.00	8/15/2007	Mineral County
74254	Vulcan Power Co issued	T06N R28E	32,33,34,35	2280.00	8/15/2007	Mineral County
79890	Vulcan Power Co issued	T07N R27E	31,32,33	1892.04	8/15/2007	Mineral County
77600	Western Geo Partners Issued	T11N R25E		27,34 1280.00	7/3/2007	Lyon County
77602	Western Geo Partners Issued	T10N R25E		2,3 1305.24	7/16/2007	Lyon County
80598	Western Geo Partners Issued	T10N R25E		1 645.54	7/16/2007	Lyon County
80601	Western Geo Partners Issued	T11N R25E		15,22,35 1923.46	7/16/2007	Lyon County
83926	Kodali Inc Lease Sale; \$42/acre	T32N R23E	1,11,12,13,14,23	3720.76	8/14/2007	Washoe County
83927	A. Kingzett \$60/acre	T21N R27E		2 652.00	8/14/2007	Churchill County
83928	Sierra Geothermal Power \$70/acre	T22N R28E		18 657.60	8/14/2007	Churchill County
83929	Ormat Nevada Inc \$100/acre	T11N R32E	1-3,10-14	4836.00	8/14/2007	Mineral County
83930	Ormat Nevada Inc \$50/acre	T11N R32E	4,5,8,9,15-17	4291.68	8/14/2007	Mineral County
83931	Ormat Nevada Inc \$150/acre	T11N R33E		5-8 2123.10	8/14/2007	Mineral County
83932	Ormat Nevada Inc \$70/acre	T12N R33E		29-32 2549.40	8/14/2007	Mineral County
83933	Dusty Miller LLC \$75/acre	T13N R33E	20,21,28,29	2560.00	8/14/2007	Mineral County
83934	Ormat Nevada Inc \$200/acre	T22N R35E	1-3,4,8	2038.32	8/14/2007	Churchill County

83935	Ormat Nevada Inc \$80/acre	T22N R35E	11-14	2560.00	8/14/2007	Churchill County
83936	Ormat Nevada Inc \$100/acre	T22N R35E	21-24	2560.00	8/14/2007	Churchill County
83937	Ormat Nevada Inc \$100/acre	T23N R35E	25,26,34-36	2600.00	8/14/2007	Churchill County
83938	Sierra Geothermal Power \$3/acre	T24N R35E	35	640.00	8/14/2007	Churchill County
83939	Ormat Nevada Inc \$70/acre	T22N R36E	5-8	2542.64	8/14/2007	Churchill County
83940	Sierra Geothermal Power \$5/acre	T23N R36E	1-3,9-11	3838.00	8/14/2007	Churchill County
83941	Ormat Nevada Inc \$55/acre	T23N R36E	4,17,19,20,30,31	3802.80	8/14/2007	Churchill County
83942	Ormat Nevada Inc \$65/acre	T23N R36E	15,16,21,22,28,29,32	4480.00	8/14/2007	Churchill County
83943	Ormat Nevada Inc \$55/acre	T24N R36E	34-36	1920.00	8/14/2007	Churchill County
83944	Ormat Nevada Inc \$65/acre	T24N R37E	1,12,13,24,25,36	3840.36	8/14/2007	Churchill County
83945	Ormat Nevada Inc \$65/acre	T24N R37E	2,11,15,22,28,29,30	4147.72	8/14/2007	Churchill County
83946	Ormat Nevada Inc \$75/acre	T24N R37E	14,23,26,27	2560.00	8/14/2007	Churchill County
83947	Ormat Nevada Inc \$75/acre	T24N R37E	31-35	3187.04	8/14/2007	Churchill County
83948	Ormat Nevada Inc \$60/acre	T25N R37E	1,2,3,10,11	4473.96	8/14/2007	Pershing County
83949	Ormat Nevada Inc \$55/acre	T25N R37E	21-23	1920.00	8/14/2007	Pershing County
83950	Ormat Nevada Inc \$80/acre	T25N R37E	26,27,30,35	2542.40	8/14/2007	Churchill County
83951	Sierra Geothermal Power \$6/acre	T25N R38E	1,2,3,5,6	3092.54	8/14/2007	Pershing County
83952	Sierra Geothermal Power \$75/acre	T25N R38E	7,8	1259.64	8/14/2007	Pershing County
83953	Montara Energy Ventures \$7/acre	T25N R38E	10,15,22	1720.00	8/14/2007	Pershing County
83954	Sierra Geothermal Power \$5/acre	T25N R38E	11,14,23	1520.00	8/14/2007	Pershing County
83955	Sierra Geothermal Power \$5/acre	T25N R38E	12,13,24	1320.00	8/14/2007	Pershing County
83956	Sierra Geothermal Power \$5/acre	T26N R38E	22,27,33	1920.00	8/14/2007	Pershing County
83957	Sierra Geothermal Power \$3/acre	T26N R38E	23-26,34,36	3856.02	8/14/2007	Pershing County
83958	First Covenant Construct. \$8/acre	T25N R39E	7,18,19	1200.22	8/14/2007	Pershing County
83959	Silver State Geothermal \$300/acre	T11N R43E	3-7,9,10	3751.95	8/14/2007	Nye County
83960	Silver State Geothermal \$320/acre	T11N R43E	15-17,19-22	2445.10	8/14/2007	Nye County
83961	Raser Power Systems \$9/acre	T12N R43E	14-17,20-23	5000.00	8/14/2007	Nye County
83962	Raser Power Systems \$65/acre	T13N R43E	4,PB38-40	1891.48	8/14/2007	Nye County
83963	A. Kingzett \$20/acre	T35N R43E T36N R43E	2,4,8,12,24 32,34	4472.14	8/14/2007	Humboldt County
83964	Raser Power Systems \$60/acre	T15N R44E	8-11,14-16	4160.00	8/14/2007	Lander County
83965	Raser Power Systems \$40/acre	T15N R44E	19-22,27-30	4273.76	8/14/2007	Nye County

83966	Ormat Nevada Inc \$510/acre	T20N R45E	9-16	5120.00	8/14/2007	Lander County
83967	Ormat Nevada Inc \$200/acre	T20N R45E	21-24	2340.00	8/14/2007	Lander County
83968	Ormat Nevada Inc \$200/acre	T30N R47E T31N R47E	4 14,26,34	2462.64	8/14/2007	Lander County

Bureau of Land Management Geothermal Lease Sales - 2007

- ◆ New BLM Geothermal Rule Effective June 1, 2007 – http://www.blm.gov/style/medialib/blm/wo/Communications_Directorate
- ◆ Geothermal Programmatic EIS project website – http://www.blm.gov/wo/st/en/prog/energy/geothermal/geothermal_nationwide.html
- ◆ “Western Geothermal Gazette” – http://www.blm.gov/geothermal_eis
- ◆ Reno Nevada (California & Nevada Combined) - A competitive geothermal lease sale was held August 14, 2007 in Reno, Nevada. All parcels offered were sold at the auction. There were 43 parcels in Nevada and 6 in California. A record high bid of \$11,000/acre was offered by Binkley Geothermal of Santa Monica for a 470 acre parcel in the Geysers, CA. The second highest bid for a parcel in California was \$420/acre.

The 43 parcels in Nevada brought almost \$11.7 million. The highest total bid and highest bid per acre was from Ormat (Reno) of \$510/acre for 5,120 acres in T20N R45E, Lander County. Silver State Geothermal, Santa Monica, paid \$1,125,600 for parcel #34, 3752 acres in T11N R43E, Nye County (\$300/acre) and \$782,720 for parcel #35, 2445 acres in the same area (\$320/acre). Other parcels went for anywhere from \$3/acre to \$200/acre. Bidders at the sale included Kodali (Santa Rosa), Kingzett (Nevada), Sierra Geothermal (WA), Miller (MD), Montara Energy (CA), and Raser (UT).

- ◆ UTAH/IDAHO. A combined competitive geothermal lease sale was held on June 20, 2007. Three parcels were sold in Utah on over 6,000 acres for a total of \$3,685,986. All three parcels are located in the Fishlake National Forest in the Cove Fort-Sulphurdale area. This is the first sale under the new regulations of the Energy Policy Act of 2005. The highest bid was from ENEL Cove Fort II, LLC, located in Andover, MA at \$850 per acre on parcel number one for a total of \$2,196,586. Bids ranged from \$20 to \$850 per acre. All bonus bid, rental and royalty monies collected are shared equally with the State of Utah.

Idaho offered five parcels, totaling 8,904 acres, in the Utah sale. The highest bid for an Idaho parcel was from Agua Caliente LLC, located in Englewood, CO at \$875 per acre for a total sale of \$2,033,016. Bids on these parcels ranged from \$130 to \$875. Total revenue from the Idaho Parcels was \$5,726,208.

OTHER NEWS

NEVADA DIVISION OF MINERALS – NDOM has hired a liaison for State agencies in the US Forest Service's (USFS) Humboldt-Toiyabe Forest Management Plan Revision currently underway. Greg Ekins of GIS Land Services has been hired to serve as the State representative at the USFS planning meetings over the next six months (April through September 2007). This position will coordinate with State agencies, the mineral and energy industry and others to acquire information pertinent to the USFS Plan and present for use in the plan revision process. Industry is encouraged to provide location information regarding areas of interest in the Humboldt-Toiyabe Forest which can be used in this cooperative effort in developing land use planning goals for the H-T Forest. You may contact Greg Ekins at greg@gislandservices.com or 775-842-9500.

GOVERNOR GIBBONS ESTABLISHES RENEWABLE ENERGY TRANSMISSION ACCESS ADVISORY COMMITTEE - To further encourage the production of renewable energy in Nevada, Governor Jim Gibbons has established a Nevada Renewable Energy Transmission Access Advisory Committee and named its 14 members. The governor created the committee through executive order today. ***“Renewable energy development is good for Nevada and good for the nation,”*** said Governor Gibbons. ***“Much of Nevada's renewable energy resources are located away from the grid. In order for companies to locate in Nevada and develop our renewable energy resources, we need to ensure they have access to the transmission infrastructure that***

will allow them to bring their energy to the marketplace.” The Advisory Committee will report directly to the governor by December 31st, 2007. Its members will work with the Governor’s energy advisor, Dr. Hatice Gecol. It is Governor Gibbons’ third executive order furthering the cause of renewable energy in Nevada. **“It is great to see our Governor getting directly involved in and supporting the development of our renewable energy resources. I am looking forward to working with the committee to develop our renewable energy resources,”** said Gecol. The committee includes representation from the key industries and interest groups that will work together to further that development. The 14 members are:

- Daniel (Dan) Schochet, Vice President, Ormat (**chair**)
- Carolyn Barbash, transmission executive, Sierra Pacific and Nevada Power (**vice chair**)
- Jeneane Harter, president, HiTech Communications (**vice chair**)
- Marion Barritt, director, American Solar Energy Society
- Tim Carlson, president/CEO, Powered by Renewables
- Gilbert Cohen, senior vice president, Acciona Solar Power
- Thomas Fair, renewable energy executive, Nevada Power and Sierra Pacific
- Joseph Greco, vice president, western region, Caithness Energy
- Erin Iping Kuo, director, Next Generation Etak and president of the Board of Directors, Nevada EcoNet
- Dr. Raj Mehta, deputy director, Nevada State Office of Energy
- Christy Morris, Oil, Gas and Geothermal Program manager, Nevada Division of Minerals
- Rebecca Wagner, commissioner, Public Utilities Commission of Nevada
- Gary Wayne, director of strategic projects, SunPower Corporation
- Brian Whalen, transmission planning manager, Nevada Power and Sierra Pacific

Nevada Assembly Bill 1 (AB1)

- ◆ **Assembly Bill 1 (AB1)** was introduced on December 12, 2006 by Assemblyman John Marvel. *Provides that a geothermal energy system is a renewable energy system for the purposes of the portfolio standards established by the Public Utilities Commission of Nevada for certain providers of electric service.* The bill was passed by the Senate May 22, 2007, delivered to the Governor and approved May 29, 2007; Effective July 1, 2007. The full text of the bill can be found at: <http://www.leg.state.nv.us/74th/reports/history.cfm?ID=17>

110th Congress - <http://thomas.loc.gov>

- ◆ **H.R.2304 – Advanced Geothermal Energy Research and Development Act**, A bill that to direct the Secretary of Energy to conduct a program of research, development, demonstration, and commercial application for geothermal energy, and for other purposes. Sponsor Rep Gerald McNerney (CA), introduced May 14, 2007; Latest Major Action 6/21/2007 Placed on Union Calendar #122. House Science Committee passed this bill earlier this month, authorizing \$90 million annually from 2008-2012 for an advanced geothermal research program.
- ◆ **S.298 – REFRESH Act**, A bill to provide incentives for renewable energy production, to increase fuel economy standards for automobiles, and to provide tax incentives for renewable energy production. Sponsor: Sen Murkowski, Lisa (AK), introduced 1/16/2007, Latest Major Action: 1/16/2007 Referred to Senate committee. Status: Read twice and referred to the Committee on Finance. Sec 101 of Renewable Energy Incentives – Geothermal Power, provides for the Secretary of Energy to make grants to eligible entities to promote geothermal power development, including high and low temperature geothermal power development.
- ◆ **H.R.6 – Clean Energy Act of 2007**, A bill to reduce our Nation’s dependency on foreign oil by investing in clean, renewable, and alternative energy resources, promoting new emerging energy technologies, developing greater efficiency, and creating a Strategic Energy Efficiency and Renewables Reserve to invest in alternative energy, and for other purposes. Sponsor: Rep Rahall, Nick J., II (WV), introduced 1/12/2007. Related Bill H.RES.66, Latest Major Action: 1/22/2007 Read the second time. Placed on Senate Legislative 6/21/2007 Passed/agreed to in Senate – Passed Senate with an Amendment.
- ◆ **H.RES.66** – providing for consideration of the bill (H.R.6). Sponsor: Rep McGovern, James P. (MA), introduced 1/16/2007, Latest Major Action: 1/18/2007 Passed/agreed to in House. Status: On agreeing to the resolution Agreed to by recorded vote: 230-194 (Roll no. 36); House reports 110-2.

Nevada County Land Bills

- ◆ The Nevada Division of Minerals and the Nevada Bureau of Mines and Geology have compiled “Mineral and Energy Potential Posters” to assist in the decisions regarding land withdrawals and future development of these public land areas. The posters are available at the NBMG website at – www.nbmgu.unr.edu/dox/of065.pdf (White Pine Co), www.nbmgu.unr.edu/dox/of066.pdf (Pershing Co), www.nbmgu.unr.edu/dox/of067.pdf (Lyon

Co). County officials/contacts: Pershing County, Karen Wesner kwesner@pershingcounty.net (775) 273-2342; Lyon County, www.lyon-county.org (Commissioner information) (775) 463-6531.

- ◆ The Nevada Division of State Lands, State Land Use Planning Agency, has posted a spreadsheet on their website to update and summarize the status of the Statewide Land Bills. You may contact that office in Carson City (775) 684-2723. The spreadsheet is available online at - <http://www.lands.nv.gov/program/slupa.htm>

US Forest Service, Humboldt-Toiyabe National Forest Plan Revision

- ◆ The Nevada Bureau of Mines and Geology has completed the revision of seventeen maps and a composite poster of those maps, which provides energy and mineral potential information with regard to proposed USFS roadless areas in Nevada. Details regarding the maps and their references are on each map. New map editions may be downloaded at: <http://www.nbmng.unr.edu/dox/of0612/of0612.htm> .
- ◆ Assessment of lands on the Humboldt-Toiyabe National Forest that have potential for consideration by Congress for Wilderness designation; an inventory prepared as a part of the revision of the Humboldt-Toiyabe National Forest Land and Resource Management Plan as per Forest Service Manual direction. The Forest Service has identified 1.3 million acres of the Humboldt-Toiyabe Forest as “capable areas” for wilderness consideration. You may access the Forest Plan and timetables for public comment at <http://www.fs.fed.us/r4/htnf/projects/forestplan/>
- ◆ The most recent information available from USFS on the Forest Plan Revision can be found at <http://www.fs.fed.us/r4/htnf/projects/forestplan/> contact Michael Hampton, Planning Staff Officer in Reno (775) 355-5314.

Department of Energy, GeoPowering the West – <http://www.eere.energy.gov/geothermal/gpw/>

- ◆ A third solicitation by the GPW Nevada Working Group for funding was granted to the Geo-Rail Industrial Development (GRID) for a feasibility study of an industrial / commercial park proposed exclusively for businesses whose products or services involve alternative or renewable energy. The Geo-Heat Center, OIT, will conduct the study in cooperation with UNR’s Great Basin Center for Geothermal Energy.
- ◆ The Mt. Grant Hospital, Hawthorne, NV feasibility study is complete. The study found geo-heat pump replacement of the existing oil burner heating system to be economically attractive at approximately one half of the capital cost of upgrading the existing boiler system. A 500-foot test well is recommended for use in an open loop geothermal heat pump system. The feasibility study allowed for a GO-NO GO decision and the Hospital and County administrators are seeking financial aid to drill the needed well for geothermal system implementation.
- ◆ Two solicitations by the GPW Nevada Working Group for funding have been granted.
 - Geothermal Industrial Park, Elko, NV. Approximately \$7,000 grant. The project involves expansion and diversification of a highly successful district heating system by constructing a geothermal-heated industrial park to be located on the western edge of town. Project partners are Chilton Engineering, developer, markay@frontiernet.net and the Oregon Institute of Technology, Geo-Heat Center, technical consultant, <http://geoheat.oit.edu> . The funds will be used to provide engineering assistance as construction develops for an estimated 100,000 sq. ft of floor space.
 - Mt Grant Hospital, Hawthorne, NV. Approximately \$25,000 grant. Engineering assistance in the form of a feasibility study is being requested by the hospital staff so that decisions can be made as to the lowest life-cycle cost of a replacement of a fuel oil / propane heating plant with a geothermal system. Project partners are the Mt. Grant Hospital, administrators, 775-945-2461 and the Oregon Institute of Technology, Geo-Heat Center, technical consultant, <http://geoheat.oit.edu/> .

Geothermal Energy Association –

- ◆ **Geothermal Resource Development in Nevada – 2006**
Authored By Dan Fleischmann – <http://www.geo-energy.org/publications/reports.asp>
- ◆ **Survey: U.S. projects underway could double geothermal power output – <http://geo-energy.org/publications/pressReleases/2006%20US%20Geothermal%20Update%20Release.pdf>**
“A new survey shows a major surge in developing geothermal power projects in the U.S. Some 45 projects are underway that could nearly double US geothermal power output according to the Geothermal Energy Association (GEA) – the industry trade group.” Karl Gawell attributes this activity to a combination of state renewable standards and federal production tax credits. For more information, contact Gawell (202) 454-5264
- ◆ The **2006 Update on US Geothermal Power Production and Development** is available on the GEA website at: <http://www.geo-energy.org/publications/reports/2006%20Update%20on%20US%20Geothermal%20Power%20Production%20and%20Developmentx.pdf>

Geothermal Resources Council – 2007 Annual Meeting, Sep 30 – Oct 3, 2007

“Renewable Baseload Energy: Geothermal Heat Pumps to Engineered Reservoirs”

John Ascuaga’s Nugget Resort, Sparks, Nevada - <http://www.geothermal.org/meet.html>

- ◆ GRC 2006 Annual Meeting and Geothermal Energy Association Tradeshow. For registration information and/or meeting transactions, contact Geothermal Resources Council • P.O. Box 1350 • Davis, California 95617 • USA • Phone (530) 758-2360 • Fax (530) 758-2839 • E-mail: grc@geothermal.org

**Public Utilities Commission of Nevada - <http://pucweb1.state.nv.us/PUCN/PUCHome.aspx>
<http://pucweb1.state.nv.us/PUCN/CommissionInfo.aspx?Util=PressReleases>**

- ◆ February 8, 2007 – The PUC unanimously approved three renewable energy contracts for 73 megawatts of new geothermal power from projects located in Northern Nevada. The three contracts include Nevada Geothermal Power Company’s 25 MW Faulkner 1 Power Plant at the Blue Mountain Project, Ormat Nevada’s 24 MW Buffalo Valley project and Ormat’s 24 MW Carson Lake project. All three plants are expected to begin commercial operations in 2010. Under the Nevada Renewable Portfolio Standard, Sierra Pacific and Nevada Power are required to generate or purchase 20 percent of renewable energy to supply to their customers by 2015.

Great Basin Center for Geothermal Energy – <http://www.unr.edu/geothermal/>

- ◆ Contact Information:
 - DIRECTOR - Dr. Lisa Shevenell, Hydro geologist. Email: geothermal@mines.unr.edu - Phone (775) 784-1779 Fax (775) 327-5801. Nevada Bureau of Mines and Geology, University of Nevada, Reno, MS 178, Reno, NV 89557-0057
 - ASSOCIATE DIRECTOR – Dr. Allen Gates, Professor and Interim Chair, Mechanical Engineering. Email: gates@unr.edu - Phone (775) 784-6906 Fax (775) 784-1701. Department of Mechanical Engineering, University of Nevada, Reno, MS 256, Reno, NV 89557
 - PROGRAM OFFICER – Peggy Brown, Central Point of Contact for the Great Basin Center for Geothermal Energy. Email: geothermal@mines.unr.edu - Phone (775) 784-7018 Fax (775) 327-5801. Great Basin Center for Geothermal Energy, 259 Paul Laxalt Mineral Research Building, University of Nevada, Reno, MS 172, Reno, NV 89557-0138

LINKS: USEFUL DATABASES AND GEOTHERMAL INFORMATION

- ◆ **American Council on Renewable Energy (ACORE) – <http://www.acore.org/>**
- ◆ **American Geological Institute Government Affairs Program - <http://www.agiweb.org/gap>**
- ◆ **Black Rock-High Rock NCA (National Conservation Area) planning website – <http://www.nv.blm.gov/Winnemucca/>**
- ◆ **Bureau of Land Management – Nevada Geothermal Program - <http://www.nv.blm.gov/minerals/geothermal/index.htm>**
- ◆ **California Geothermal Energy Collaborative - <http://cgec.ucdavis.edu/>. “The overall goal of the California Geothermal Energy Collaborative (CGEC) is to expand the sustainable use of geothermal resources to meet California’s energy needs. The CGEC coordinates activities with the geothermal industry, local, state and federal agencies, and other entities to focus statewide geothermal activities.”**
- ◆ **Council of State Governments – TrendsAlert; Renewable Energy and State Economics – <http://www.csg.org>. Summarizes issues and policy options for state officials, regarding economic potential of renewable energy.**
- ◆ **Geo-Heat Center, Oregon Institute of Technology, Klamath Falls, Oregon - <http://geoheat.oit.edu/>**
- ◆ **GeoPowering the West - <http://www.eere.energy.gov/geothermal/gpw/>**
- ◆ **Geothermal Biz.com - <http://www.geothermal-biz.com/>. *Geothermal biz.com* was created to help the geothermal entrepreneur—companies, small businesses, Native American tribes, homeowners, and individuals—develop geothermal direct use and small power generation projects.**
- ◆ **Geothermal Education Office - <http://www.geothermal.marin.org/>. PURPOSE. To promote public understanding about geothermal resources and its importance in providing clean sustainable energy while protecting our environment. SCOPE. The Geothermal Education Office (GEO) produces and distributes educational materials about geothermal energy to schools, energy/environmental educators, libraries, industry, and the public.**
- ◆ **Geothermal Energy Association - <http://www.geo-energy.org/>**

- ♦ **Geothermal Resources Council** - <http://www.geothermal.org>
- ♦ **GeothermEx, Inc** – <http://www.geothermex.com>. Designed to provide information of use to geothermal developers, including downloads of the PIER Geothermal Database of resources in western Nevada and California.
- ♦ **Great Basin Center for Geothermal Energy at the University of Nevada, Reno** - <http://www.unr.edu/geothermal/>
- ♦ **Idaho National Engineering and Environmental Laboratory (INEEL)** - <http://geothermal.inel.gov/>
- ♦ **James & James Science Publishers; Provider of information for energy and environment professionals worldwide; On-line database of renewable energy suppliers** – <http://www.earthscan.co.uk/>
- ♦ **National Geothermal Collaborative** – <http://www.geocollaborative.org/>
- ♦ **National Renewable Energy Laboratory (NREL)** - <http://www.nrel.gov/geothermal>. Geothermal Program; Access reports and publications on geothermal energy by Gerald Nix, Charles Kutscher, Barbara Farhar, Keith Gawlik, Brandon Owens, Walter Short.
- ♦ **Nevada Bureau of Mines and Geology, MI-2003, “The Nevada Mineral Industry 2005”** - <http://www.nbmjg.unr.edu/dox/mi/05.pdf>
- ♦ **Nevada Bureau of Mines and Geology, Geothermal Energy** - <http://www.nbmjg.unr.edu/geothermal/gthome.htm>
- ♦ **Nevada Commission on Mineral Resources, Division of Minerals** - http://minerals.state.nv.us/programs/prog_ogg.htm
- ♦ **Nevada State Office of Energy, Renewable Energy & Energy Conservation Task Force, including report by Mary Riddel “Potential Economic Impact of Nevada’s Renewable Energy Resources”** - <http://energy.state.nv.us/taskforce/default.htm>
- ♦ **Nevada Renewable Energy and Energy Conservation Task Force website** - <http://www.nevadarenewables.org/?section=home>
- ♦ **Nevada Public Utilities Commission** - <http://pucweb1.state.nv.us/PUCN/PUCHome.aspx>
<http://pucweb1.state.nv.us/PUCN/Electric/ProposedGen.aspx>
- ♦ **Office of the Governor, Nevada State Energy Office** - <http://energy.state.nv.us/taskforce/default.htm>
- ♦ **Office of Scientific and Technical Information; Subject portals on renewable energy and energy efficient technologies** <http://www.osti.gov/subjectportals/>
- ♦ **Renewable Energy Policy Project & CREST (Center for Renewable Energy & Sustainable Technology)** - <http://www.repp.org/>
- ♦ **Sandia National Laboratories Geothermal Research Dept.**
<https://cfwebprod.sandia.gov/cfdocs/GPI/index.cfm>
- ♦ **Sierra Pacific Resources, Renewables RFP** - <http://www.sierrapacificresources.com/company/RFPs/renewablerfp.cfm>
- ♦ **Southern Methodist University Geothermal Laboratory** - <http://www.smu.edu/geothermal/>
- ♦ **Stanford Geothermal Program** - <http://ekofisk.stanford.edu/geotherm.html>
- ♦ **U.S. Department of Agriculture, Rural Development** - <http://www.rurdev.usda.gov>
- ♦ **U.S. Geological Survey, USGS - Geopubs**
Online Geologic Publications of the Western United States - <http://geopubs.wr.usgs.gov/>
- ♦ **Winnemucca BLM Geothermal Resource Leasing Proposal Website**
<http://www.nv.blm.gov/Winnemucca/geed/default.htm>

Information compiled by the **Nevada Division of Minerals** with assistance from:

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Under USDOE Cooperative Agreement: SEP/CA/03/006 supporting GeoPowering the West and a grant from the Western Area Power Administration
12155 W. Alameda Parkway
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For further information regarding GeoPowering Nevada or Nevada’s Geothermal Program contact Christy Morris, Oil Gas and Geothermal Program Manager at the Nevada Division of Minerals 775-684-7045, Fax: 775-684-7052, or clmorris@govmail.state.nv.us (email).