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**NEVADA GEOTHERMAL UPDATE**

**May 2008**

**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>
*Nameplate Capacity as reported to the Division of Minerals for 2006.		
<b>Beowawe Power Plant (1985)</b> Beowawe Power LLC/Terra-Gen Power LLC <a href="http://www.terra-genpower.com/Projects/Projects_Geothermal.aspx">http://www.terra-genpower.com/Projects/Projects_Geothermal.aspx</a>	<b>16.6 MW</b>	<b>S13, T31N R47E</b>

<b>Bradys Power Plant (1992)</b> <b>Brady Power Partners/ORMAT Nevada Inc.</b>	<b>26.1 MW</b>	<b>S12, T22N R26E</b>
<ul style="list-style-type: none"> <li>• 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'; Permitted location.</li> <li>• 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'; Permitted location.</li> </ul>		

<b>Desert Peak Power Plant (1985)</b>	<b>12.5 MW</b>	<b>S21, T22N R27E</b>
<b>Desert Peak 2 Power Plant (2006)</b> <b>Brady Power Partners/ORMAT Nevada Inc.</b>	<b>15 MW</b>	<b>S21, T22N R27E</b>
<ul style="list-style-type: none"> <li>• Feb 14, 2008 –Ormat Technologies announced that work has begun on an Enhanced Geothermal System (EGS) using an existing sub-commercial well, DP 27-15 to demonstrate the technology's potential to generate substantial levels of electricity. The technology increases the production of a well by enhancing the permeability making it possible to extract additional heat from the reservoir rocks. This project has been funded and developed by Ormat, the US Dept of Energy, GeothermEx Inc., Idaho Nationals Lab, Lawrence Berkeley Nat Lab, Sandia Nat Lab, Un of Utah EGI, TerraTek, Pinnacle Technologies, and USGS.</li> <li>• ORMAT Nevada Inc. "Production well #74-28"; State Permit #745 issued Dec 3, 2007; API #27-001-90353; SE/4 NE/4, S28 T22N R27E; PTD 1500'; Commercial production well location in the Desert Peak 2 project area, Brady Hot Springs, Churchill County, Nevada; Permitted location.</li> <li>• ORMAT Nevada Inc. "Production well #62-28"; State Permit #780 issued Apr 24, 2008; API #27-001-90362; NW/4 NE/4, S28 T22N R27E; PTD 1500'; Commercial production well location in the Desert Peak 2 Project Area Permit #519, Brady Hot Springs, Desert Peak, Churchill County, Nevada; New location.</li> </ul>		

<b>Dixie Valley Power Plant (1988)</b> Caithness Dixie Valley/Terra-Gen Power LLC <a href="http://www.terra-genpower.com/Projects/Projects_Geothermal.aspx">http://www.terra-genpower.com/Projects/Projects_Geothermal.aspx</a>	<b>62.0 MW</b>	<b>S7, T24N R37E</b>
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- ◆ Terra-Gen Dixie Valley "Injection well 38A-32"; State Permit #788 issued May 5, 2008; API #27-001-90368; SE/4 SW/4, S32 T25N R37E; PTD 4000'; Industrial injection well location in Dixie valley, Churchill County, Nevada; New location; Moving in new ThermaSource rig; Will spud soon.
- ◆ 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 closed in early December 2007. The new company will be called Terra-Gen Power, LLC. 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**

- ◆ May 1, 2008 - U.S. Geothermal, Inc. announced a completed transaction with Michael Stewart and Empire Geothermal Power where it has acquired the geothermal power plant and 28,358 acres of geothermal leases and ground water rights. The total purchase price for the power plant and the acreage was \$16.62 million USD, and was completed with an initial closing on Apr 1 and a final closing on Apr 30, 2008. The transaction includes assets from two locations; San Emidio and Granite Creek. San Emidio includes the power plant and approximately 22,944 acres of leases and ground water rights. The Granite Creek assets are 5414 acres of BLM leases about 6 miles north of Gerlach, Nevada. US Geothermal plans a 27 megawatt development for the San Emidio resource with drilling to begin in 2008. – <http://www.usgeothermal.com>

**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**  
**Richard Burdette Power Plant (Galena 1) (2005) 30 MW S29, T18N R20E**  
**Steamboat Development Corp./ORMAT Nevada Inc.**

- ◆ 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. "Production well 12-33"; State permit #718 issued Oct 2007; API #27-031-90248; SW/4 NW/4, Section 33, T18N R20E; PTD 1000'; Industrial production well location in Steamboat Springs, Washoe County, Nevada; Permitted location.

**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.

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

- ◆ Enel Stillwater LLC State Permit #752 issued Jan 22, 2008 for Injection Well #16-7; API #27-001-90359; Located in the Stillwater Geothermal Project Area; NW/4 SW/4 of Section 7, T19N R31E, Churchill County, Nevada. The proposed depth of the well is 1500'. New permitted location.
- ◆ Enel Stillwater LLC State Permit #753 issued Jan 22, 2008 for Injection Well #84-12; API #27-001-90360; Located in the Stillwater Geothermal Project Area; SE/4 NE/4 of Section 12, T19N R30E, Churchill County, Nevada. The proposed depth of the well is 1500'. New permitted location.
- ◆ Enel Stillwater LLC State Permit #746 issued Jan 7, 2008 for Injection Well #28-36; API #27-001-90354; 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 2080'. Completed. Testing.
- ◆ 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.
- ◆ Nov 16, 2007 Lahontan Valley News - Enel Stillwater, LLC receives Special Use Permit from Churchill County - Enel Stillwater received the special use permit from Churchill County planning Commission to construct the proposed Stillwater II power plant. One condition of approval is a monitoring program of the wells, to be reviewed annually - <http://www.lahontanvalleynews.com/article/20071116/News/111160046>

- ♦ 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>

<b>Soda Lake No. 1 Power Plant (1987)</b>	<b>5.1 MW</b>	<b>S33, T20N R28E</b>
<b>Soda Lake No. 2 Power Plant (1991)</b>	<b>21.0 MW</b>	
<b>Constellation Operating Services</b>		

<b>Wabuska Power Plant (1984)</b>	<b>2.2 MW</b>	<b>S15, 16, T15N R25E</b>
<b>Homestretch Geothermal LLC</b>		

## 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

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

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

- ♦ Enel Salt Wells "Injection Well #65-36R"; State Permit #735 issued Oct 2007; API #27-001-90352-01; SW/4 SE/4, Sec 36, T17N R30E; PTD 1500'; Redrill of Industrial injection well #65-36 in the Salt Wells Geothermal project area permit #698, Churchill County, Nevada; Barbour rig #45 Spud Mar, 2008; Completed drilling April, 2008.
- ♦ Enel Salt Wells "Injection Well #45-23"; State Permit #725 issued Oct 2007; API #27-001-90342; NE/4 SW/4, Sec 23, T17N R30E; PTD 1500'; Industrial injection well in the Salt Wells Geothermal project area permit #698, Churchill County, Nevada; Permitted location.
- ♦ Enel Salt Wells "Injection Well #56-23"; State Permit #726 issued Oct 2007; API #27-001-90343; NW/4 SE/4, Sec 23, T17N R30E; PTD 1500'; Industrial injection well in the Salt Wells Geothermal project area permit #698, Churchill County, Nevada; Permitted location.
- ♦ Enel Salt Wells "Production Well #14-25"; State Permit #727 issued Oct 2007; API #27-001-90344; SW/4 NW/4, Sec 25, T17N R30E; PTD 1500'; Industrial production well in the Salt Wells Geothermal project area permit #698, Churchill County, Nevada; Permitted location.
- ♦ Enel Salt Wells "Production Well #86-26"; State Permit #728 issued Oct 2007; API #27-001-90345; NE/4 SE/4, Sec 26, T17N R30E; PTD 1500'; Industrial production well in the Salt Wells Geothermal project area permit #698, Churchill County, Nevada; Barbour rig #45 Spud Jan 2008; Completed Feb 2008.
- ♦ Enel Salt Wells "Injection Well #64-35"; State Permit #729 issued Oct 2007; API #27-001-90346; SW/4 NE/4, Sec 35, T17N R30E; PTD 1500'; Industrial injection well in the Salt Wells Geothermal project area permit #698, Churchill County, Nevada; Change location and well name; Barbour rig #45 Spud Feb 24, 2008; Completed drilling Mar8, 2008.
- ♦ Enel Salt Wells "Production Well #61-35"; State Permit #730 issued Oct 2007; API #27-001-90347; NW/4 NE/4, Sec 35, T17N R30E; PTD 1500'; Industrial production well in the Salt Wells Geothermal project area permit #698, Churchill County, Nevada; Permitted location.

- ◆ Enel Salt Wells “Production Well #67-35”; State Permit #731 issued Oct 2007; API #27-001-90348; SW/4 SE/4, Sec 35, T17N R30E; PTD 1500’; Industrial production well in the Salt Wells Geothermal project area permit #698, Churchill County, Nevada; Permitted location.
- ◆ Enel Salt Wells “Injection Well #52-36”; State Permit #732 issued Oct 2007; API #27-001-90349; NW/4 NE/4, Sec 36, T17N R30E; PTD 1500’; Industrial injection well in the Salt Wells Geothermal project area permit #698, Churchill County, Nevada; Permitted location.
- ◆ Enel Salt Wells “Injection Well #63-36”; State Permit #734 issued Oct 2007; API #27-001-90351; SW/4 NE/4, Sec 36, T17N R30E; PTD 1500’; Industrial injection well in the Salt Wells Geothermal project area permit #698, Churchill County, Nevada; New location; Spud Dec 18, 2007 Barbour rig #45; Completed drilling Jan 2008.
- ◆ Enel Salt Wells “Injection Well #65-36”; State Permit #735 issued Oct 2007; API #27-001-90352; SW/4 SE/4, Sec 36, T17N R30E; PTD 1500’; Industrial injection well in the Salt Wells Geothermal project area permit #698, Churchill County, Nevada; Barbour rig #45 Spud Feb 8, 2008; Completed drilling Feb 16, 2008.
- ◆ 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**

- ◆ ORMAT Nevada Inc. Geothermal Project Area Permit #777 issued March 31, 2008, NAS project area near Fallon, Nevada, Carson Lake, Churchill County, Nevada. The permit allows a total of 12 production wells to TD 10,000’ and 6 injection wells to TD 10,000’. The project area encompasses acreage in T18N R29E Sections 24, 25, 26, 36 and T18N R30E Sections 19, 30, 31 and 32. NEW GEOTHERMAL PROJECT AREA PERMIT.
- ◆ ORMAT Nevada Inc. “Production well #82-36”; State Permit #717 issued Oct 2007; API #27-001-90341; NE/4 NE/4, Sec 36, T18N R29E; PTD 8500’; Industrial production well in the NAS project area near Fallon Nevada; Churchill County; New location; GeoDrill rig #1 spud 1/14/2008; Drilled to TD; Testing.
- ◆ 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](mailto: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) “Production Well 86-15”; State permit #787 issued Apr 28, 2008; API #27-001-90367; NE/4 SE/4 Section 15, T17N R30E; PTD 750’; Industrial production well, Carson Lake, Churchill Co, Geothermal Project Area permit #704; NEW LOCATION.
- ◆ Carson Lake Basin Project, LLC (Vulcan) “Production Well 56-14”; State permit #786 issued Apr 28, 2008; API #27-001-90366; NW/4 SE/4 Section 14, T17N R30E; PTD 750’; Industrial production well, Carson Lake, Churchill Co, Geothermal Project Area permit #704; NEW LOCATION.
- ◆ Carson Lake Basin Project, LLC (Vulcan) “Production Well 47-11”; State permit #785 issued Apr 28, 2008; API #27-001-90365; SE/4 SW/4 Section 11, T17N R30E; PTD 750’; Industrial production well, Carson Lake, Churchill Co, Geothermal Project Area permit #704; NEW LOCATION.
- ◆ Carson Lake Basin Project, LLC (Vulcan) “Production Well 35-11”; State permit #784 issued Apr 28, 2008; API #27-001-90364; NE/4 SW/4 Section 11, T17N R30E; PTD 750’; Industrial production well, Carson Lake, Churchill Co, Geothermal Project Area permit #704; NEW LOCATION.
- ◆ Carson Lake Basin Project, LLC (Vulcan) “Production Well 58-9”; State permit #783 issued Apr 28, 2008; API #27-001-90363; SW/4 SE/4 Section 9, T17N R30E; PTD 750’; Industrial production well, Carson Lake, Churchill Co, Geothermal Project Area permit #704; NEW LOCATION.

- ◆ Carson Lake Basin Project, LLC (Vulcan) "TG Well 17-16"; State permit #685 issued Feb 2007; API #27-001-90332; SW/4 SW/4 Section 16, T17N R30E; PTD 2500'; Gradient/Observation well, Carson Lake, Churchill Co, Nevada; SPUD Sep 14, 2007; Rocket Drill Co rig #2; Completed drilling Feb 9, 2008.
- ◆ 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, 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 24-21	Permit #684	API #27-001-90331	SW/4 NW/4 Section 21
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 #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.

#### Fireball Ridge Geothermal Area, T23-24N R225-26N, Churchill County

- ◆ Ormat Nevada Inc. "Observation well 65-29"; State Permit #750 issued January 7, 2008; API #27-001-90358; NW/4 SE/4, Section 29, T24N R26E; PTD 3000'; Observation well located in the Fireball Ridge geothermal project area, permit #743; Churchill County, Nevada; New location.
- ◆ Ormat Nevada Inc. "Observation well 85-31"; State Permit #749 issued January 7, 2008; API #27-001-90357; NE/4 SE/4, Section 31, T24N R26E; PTD 3000'; Observation well located in the Fireball Ridge geothermal project area, permit #743; Churchill County, Nevada; Spud Mar 8, 2008, Geodrill Rig #2; Drilling.
- ◆ Ormat Nevada Inc. "Observation well 63-29"; State Permit #748 issued January 7, 2008; API #27-001-90356; SW/4 NE/4, Section 29, T24N R26E; PTD 3000'; Observation well located in the Fireball Ridge geothermal project area, permit #743; Churchill County, Nevada; Spud Feb 8, 2008, Geodrill Rig #2; Drilled to approximately 3000'; Completed March 2, 2008.
- ◆ Ormat Nevada Inc. "Observation well 68-31"; State Permit #747 issued January 7, 2008; API #27-001-90355; SW/4 SE/4, Section 31, T24N R26E; PTD 3000'; Observation well located in the Fireball Ridge geothermal project area, permit #743; Churchill County, Nevada; New location.
- ◆ Ormat Nevada Inc. Geothermal Project Area Permit #743 issued Nov 20, 2007; Geothermal project allowing 7 production wells @ TD 7000'; 3 injection wells @ TD 7000'; and 5 observation wells @ TD 2000' in Sections 25,36 of T24N R25E; Sections 19,21,30,29,28,27,31,32 of T24N R26E and Sections 5,6 of T23N R26E, Fireball Ridge, Churchill County, Nevada; NEW PROJECT AREA PERMIT.

#### Warm Springs Geothermal Area, T23N R20E, Washoe County

- ◆ Newcore Energy LLC "Observation Well Marshall #1"; State permit #744 issued Nov 30, 2007; API #27-031-90251; Observation well located NW/4 NE/4 of Section 22, T23N R20E; Warm Springs geothermal prospect area, Washoe County, Nevada; PTD 3000'; Great Valley Rig 2000 spud Jan 2008; Completed Jan 2008.

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

- ◆ TG Power, LLC "Production well #42-17"; State Permit #773 issued March 13, 2008; API #27-007-90035; NE/4 NW/4 Section 17, T41N R52E; Tuscarora – Hot Sulfur Springs project area permit 673; PTD 6000'; Elko County, Nevada; New location.
- ◆ TG Power, LLC "Production well #72-17"; State Permit #716 issued September 24, 2007; API #27-007-90034; NE/4 NW/4 Section 17, T41N R52E; Tuscarora – Hot Sulfur Springs project area permit 673; PTD 5000'; Elko County, Nevada; Permitted location.
- ◆ 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; Suspended operations 10/3/2007; TESTING.
- ◆ [http://tgpowerllc.com/Hot\\_Sulphur\\_Springs.html](http://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**

### **Blue Mountain Geothermal Area, T36N R34E, Humboldt County**

- ◆ **Nevada Geothermal Power issues Notice to Proceed to Ormat for Blue Mtn Power Plant Feb 13, 2008- Construction permit signed with Ormat to supply and construct the Phase I power plant at Blue mtn. Nevada. Ormat will begin design and manufacturing of the Faulkner 1 geothermal power plant to meet completion date of Dec 31, 2009.**
- ◆ Nevada Geothermal Power Company "Industrial Production well #14-14"; State Permit #754 issued Jan 31, 2008; API #27-013-90059; SW/4 NW/4, Section 14, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Production well #15-14"; State Permit #755 issued Jan 31, 2008; API #27-013-90060; NW/4 SW/4, Section 14, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Production well #17-14"; State Permit #756 issued Jan 31, 2008; API #27-013-90061; SW/4 SW/4, Section 14, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Production well #21-14"; State Permit #757 issued Jan 31, 2008; API #27-013-90062; NW/4 NW/4, Section 14, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Production well #42-14"; State Permit #758 issued Jan 31, 2008; API #27-013-90063; NE/4 NW/4, Section 14, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION; Will spud soon.
- ◆ Nevada Geothermal Power Company "Industrial Production well #45-14"; State Permit #759 issued Jan 31, 2008; API #27-013-90064; NE/4 SW/4, Section 14, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Production well #47-14"; State Permit #760 issued Jan 31, 2008; API #27-013-90065; SE/4 SW/4, Section 14, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Injection well #13-11"; State Permit #763 issued February 29, 2008; API #27-013-90066; SW/4 NW/4, Section 11, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Injection well #36-11"; State Permit #764 issued February 29, 2008; API #27-013-90067; NE/4 SW/4, Section 11, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Injection well #63-11"; State Permit #765 issued February 29, 2008; API #27-013-90068; SW/4 NE/4, Section 11, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Injection well #55-15"; State Permit #766 issued February 29, 2008; API #27-013-90069; NW/4 SE/4, Section 15, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.

- ◆ Nevada Geothermal Power Company "Industrial Injection well #85-15"; State Permit #767 issued February 29, 2008; API #27-013-90070; NE/4 SE/4, Section 15, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Injection well #88-15"; State Permit #768 issued February 29, 2008; API #27-013-90071; SE/4 SE/4, Section 15, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Injection well #12-23"; State Permit #769 issued February 29, 2008; API #27-013-90072; NW/4 NW/4, Section 23, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Well TG-16"; State Permit #770 issued March 5, 2008; API #27-013-90073; Thermal gradient well location in NE/4 NE/4, Section 15, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 1640'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Well TG-17"; State Permit #771 issued March 5, 2008; API #27-013-90074; Thermal gradient well location in SW/4 SW/4, Section 11, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 1640'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Well TG-18"; State Permit #772 issued March 5, 2008; API #27-013-90075; Thermal gradient well location in NE/4 SW/4, Section 11, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 1640'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Injection Well 55-10"; State Permit #778 issued April 21, 2008; API #27-013-90076; Injection well location in NW/4 SE/4, Section 10, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ Nevada Geothermal Power Company "Industrial Injection Well 65-22"; State Permit #779 issued April 21, 2008; API #27-013-90077; Injection well location in NW/4 SE/4, Section 22, T36N R34E; Blue Mountain geothermal project area, Humboldt County; PTD 6000'; NEW LOCATION.
- ◆ 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; 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. Permitted location.
- ◆ 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; Permitted location.
- ◆ Nevada Geothermal Power Company "Industrial Production well #44-14"; State Permit #636 issued February 24, 2006; API #27-013-90049; NE/4 SE/4, Section 14, T36N R34E; Blue Mountain geothermal project area 605 PA, Humboldt County; PTD 6000'; CHANGED LOCATION (originally permitted as well #26-14 in NW/4 SW/4); Spud Jan 21, 2008 ThermaSource rig #101; Released rig Mar 1, 2008.
- ◆ Nevada Geothermal Power Company "Industrial Production well #25-14; State Permit #637 issued February 24, 2006; API #27-013-90050; NW/4 SW/4, Section 14, T36N R34E; Blue Mountain geothermal project area 605 PA, Humboldt County; PTD 6000'; CHANGED LOCATION (originally permitted as well #28-14 in SW/4 SW/4); Spud 11/2007, ThermaSource rig #101; Drilled to 2370', flow tested 1/27-29/2008, producing from zone @ 2280', temp of 374 deg F.
- ◆ Nevada Geothermal Power Company; Permit #619 issued Sep 22, 2005 for Industrial Production well #58-15; API #27-013-90047; Located in SW/4 SE/4, Section 15, T36N R34E; Proposed total depth is 2000'; Production well location in the Blue Mountain geothermal project area; 605PA; Humboldt County, Nevada; Location change.
- ◆ 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.

#### **Buffalo Valley Geothermal Area, T29N, R41E, Lander County**

- ◆ ORMAT NEVADA, INC. Observation well #31-26; State Permit #665 issued May 18, 2006; API #27-015-90033; NE/4 NW/4 Section 26, T29N R41E, Buffalo Valley, Lander County, Nevada; PTD 3000'; Spud Dec 2007 GeoDrill rig #2; Completed drilling Jan 2008.
- ◆ 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,

- ◆ 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'; 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; 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 #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 Co. " Industrial Production Well 61-9"; State Permit #782 issued April 28, 2008; API #27-013-90078; NW/4 NE/4, Section 9, T33N R40E; PTD 6000'; Production well location in Pumpnickel Valley, Humboldt Co, Nevada; New permitted location.
- ◆ Nevada Geothermal Power Co. " TG-6 Well"; State Permit #737 issued Nov 14, 2007; API #27-013-90053; SE/4 SE/4, Section 33, T34N R40E; PTD 1000'; Temperature gradient well in Pumpnickel Valley, Humboldt Co, Nevada; Permitted location.
- ◆ Nevada Geothermal Power Co. " TG-7 Well"; State Permit #738 issued Nov 14, 2007; API #27-013-90054; SW/4 NW/4, Section 3, T33N R40E; PTD 1000'; Temperature gradient well in Pumpnickel Valley, Humboldt Co, Nevada; Permitted location. Drilled. Testing.
- ◆ Nevada Geothermal Power Co. " TG-8 Well"; State Permit #739 issued Nov 14, 2007; API #27-013-90055; NE/4 NE/4, Section 9, T33N R40E; PTD 1000'; Temperature gradient well in Pumpnickel Valley, Humboldt Co, Nevada; Permitted location.
- ◆ Nevada Geothermal Power Co. " TG-9 Well"; State Permit #740 issued Nov 14, 2007; API #27-013-90056; SW/4 NE/4, Section 9, T33N R40E; PTD 1000'; Temperature gradient well in Pumpnickel Valley, Humboldt Co, Nevada; Permitted location. Drilled. Testing.
- ◆ Nevada Geothermal Power Co. " TG-10 Well"; State Permit #741 issued Nov 14, 2007; API #27-013-90057; SE/4 SW/4, Section 9, T33N R40E; PTD 1000'; Temperature gradient well in Pumpnickel Valley, Humboldt Co, Nevada; Permitted location.
- ◆ Nevada Geothermal Power Co. " TG-5 Well"; State Permit #742 issued Nov 14, 2007; API #27-013-90058; NW/4 NW/4, Section 9, T33N R40E; PTD 1000'; Temperature gradient well in Pumpnickel Valley, Humboldt Co, Nevada; Permitted location. Drilled. Testing.
- ◆ 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; 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.

### **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.
- ◆ See website - <http://www.gridusa.biz/>

### **Emigrant Geothermal Project, T1S R36E, Esmeralda County**

#### **Jersey Valley Geothermal Area; T27N, R40E, Pershing County**

- ◆ Ormat Nevada Inc. "Production Well 18A-27"; State permit #699 issued July 11, 2007; API 27-027-90071; Production well location SW/4 SW/4, Section 27, T27N R40E; PTD 7000'; Jersey Valley geothermal project area, Pershing Co; Spud Jan 8, 2008 with DHS rig #14; Drilling.

- ◆ Ormat Nevada Inc. "Observation well #33-33"; State Permit #658 issued May 18, 2006; API #27-027-90070; SE/4 NW/4 Section 33, T27N R40E, Jersey Valley, Pershing County, Nevada; PTD 3000'; Spud Oct 16, 2007 with GeoDrill rig #2, drilled to 3000'; Completed drilling Nov 16, 2007.
- ◆ Ormat Nevada Inc. "Observation well #81-28"; State Permit #655 issued May 18, 2006; API #27-027-90067; NE/4 NE/4 Section 28, T27N R40E, Jersey Valley, Pershing County, Nevada; PTD 3000'; Spud Oct 28, 2007 with DHS rig #14; Completed drilling Dec 26, 2007.
- ◆ 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 33A-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, Name change.
- ◆ 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](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.
- ◆ 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 #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.

#### **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 "Observation Well #18-33"; State Permit #781 issued Apr 24, 2008; API #27-015-90043; Observation well location SW/4 SW/4 Section 33, T24N R43E, PTD 2000'; Reese River geothermal prospect area, Lander County, Nevada; New permitted location.
- ◆ Sierra Geothermal Power "Observation Well #13A-4"; State Permit #722 issued Oct 18, 2007; API #27-015-90041; Observation well location SW/4 NW/4 Section 4, T24N R43E, PTD 6000'; Reese River geothermal prospect area, Lander County, Nevada; Permitted location.
- ◆ Sierra Geothermal Power "Observation Well #25A-4"; State Permit #723 issued Oct 18, 2007; API #27-015-90042; Observation well location NW/4 SW/4 Section 4, T24N R43E, PTD 6000'; Reese River geothermal prospect area, Lander County, Nevada; Permitted location.
- ◆ Sierra Geothermal Power; Permit #711 issued September 11, 2007 for TG Well #13-4; API #27-015-90036; SW/4 NW/4 Section 4, T24N R43E, Exploratory observation well location in the Reese River geothermal prospect area, Lander County, Nevada; PTD 6000'; Spud with Great Valley rig #2000 on Oct 22, 2007; Drilled to TD 5184'; BHT Nov 23, 2007 was 298°F; Completed Nov 21, 2007; Deepened with GVR #2000 Feb 11, 2008; Released rig Mar 4, 2008.
- ◆ 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'; Spud Mar 24, 2008 with Welsco rig #7; Released rig Apr 14, 2008.

- ◆ Sierra Geothermal Power; Permit #715 issued September 11, 2007 for TG Well #62-4; API #27-015-90040; NW/4 NE/4 Section 4, T23N R43E, Exploratory observation well location in the Reese River geothermal prospect area, Lander County, Nevada; PTD 6000'; Note location and name change. Spud Apr 2008 with Major Drilling rig; Drilling.

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

- ◆ Ormat Nevada Inc. Geothermal Project Area Permit #724 issued Oct 30, 2007; Geothermal project allowing 7 production wells @ TD 6000'; 3 injection wells @ TD 6000'; and 10 observation wells @ TD 6000' in Sections 2,3,10,11 of T3N R36E, and Sections 27,28,34,35 of T4N R35E, Rock Hill, Esmeralda County, Nevada; PROJECT AREA PERMIT.
- ◆ 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**

- ◆ Devil's Canyon Geothermal No. 1 SV-01, LLC, Provo UT (Raser); Geothermal Project Area State Permit #776 issued March 31, 2008; Big Smoky Valley, Nye County, Nevada. The permit allows a total of 12 production wells @ TD 4000', 8 injection wells @ TD 4000', and 4 observation wells @ TD 4000'. The project area encompasses acreage in Sections 5, 6, 7, 8, and 9 of T11N R43E. NEW GEOTHERMAL PROJECT AREA PERMIT.
- ◆ Truckee Geothermal No. 1 SV-01, LLC, Provo UT (Raser); Industrial Injection Well #37-3; State permit #719 issued Oct 9, 2007, API #27-023-90137; Located in SE/4 SW/4 Section 3, T12N R43E; PTD 4000'; Big Smoky Valley, Nye County, Nevada; Permitted location.
- ◆ Truckee Geothermal No. 1 SV-01, LLC, Provo UT (Raser); Industrial Injection Well #23-3; State permit #720 issued Oct 9, 2007, API #27-023-90138; Located in SW/4 NW/4 Section 3, T12N R43E; PTD 4000'; Big Smoky Valley, Nye County, Nevada; Permitted location.
- ◆ 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. This project area has been enlarged to include Section 4 T13N R43E.
- ◆ 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; Permitted location.
- ◆ 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; 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.

## Bureau of Land Management Geothermal Lease Sale – Reno Nevada

- ◆ A competitive geothermal lease sale is tentatively scheduled for July 15, 2008.

The Nevada State Office is accepting nominations for a competitive geothermal lease sale tentatively scheduled for July 15, 2008. Nominations must be received by Feb 29, 2008 along with a non-refundable filing fee of \$100/nomination plus \$.10/acre. Sale notices, results and forms will be posted at -

[http://www.blm.gov/nv/st/en/prog/minerals/leasable\\_minerals/geothermal0/ggeothermal\\_leasing.html](http://www.blm.gov/nv/st/en/prog/minerals/leasable_minerals/geothermal0/ggeothermal_leasing.html)

- ◆ New BLM Geothermal Rule Effective June 1, 2007 – [http://www.blm.gov/style/medialib/blm/wo/Communications\\_Directorate/regulations.Par.94775.File.dat/E7-7991.pdf](http://www.blm.gov/style/medialib/blm/wo/Communications_Directorate/regulations.Par.94775.File.dat/E7-7991.pdf)
- ◆ Geothermal Programmatic EIS project website – [http://www.blm.gov/wo/st/en/prog/energy/geothermal/geothermal\\_nationwide.html](http://www.blm.gov/wo/st/en/prog/energy/geothermal/geothermal_nationwide.html)
- ◆ “Western Geothermal Gazette” – [http://www.blm.gov/geothermal\\_eis](http://www.blm.gov/geothermal_eis)

## OTHER NEWS

### Governor Gibbon’s Renewable Energy Transmission Access Advisory Committee released their transmission report on January 25, 2008 – <http://gov.state.nv.us/Energy/>

This report notes the locations of renewable energy resources and their relation to available power lines for transmission to population centers, and locations where power lines are needed. The Great Basin Center for Geothermal Energy (GBCGE) provided the geothermal resource maps for this project. The renewable interactive maps can be found at <http://www.unr.edu/geothermal/renewables.htm>. The maps show geothermal, solar, wind and biomass potential along with land ownership and restrictions.

### 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 (RETAAC) 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.

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 Geocol. 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

RETAAC completed their report on time, December 31, 2007. The report will be presented to the Governor in a meeting in January.

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

- ◆ **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. Became public law 12/19/2007.

## The Nevada Division of Minerals

- ◆ Nevada Renewables GIS interactive web site

The site can be accessed from NDOM's home page – Quick Reference list <http://minerals.state.nv.us>  
“Renewable Energy Planning - Interactive Map”.

As the splash screen reads:

*This information is provided to assist researchers, developers, land use managers and other stakeholders with information on Nevada's renewable energy resource potential, transmission, land ownership and land use constraints to facilitate the finding and utilization of alternative energy solutions to Nevada's energy needs.*

The Nevada Bureau of Mines and Geology, Cartography Group have been the artists and the experts on this project. They have squeezed in hours to work on this project and brought that special cartographers eye to the presentation. The website is a work in progress. There are plans and suggestions for posting more datasets, including up-to-date power plant generation numbers and mineral archive data. You will find information here which has not been readily available before, such as transmission lines from Sierra Pacific Resources and Military zones of possible interference where consultation is recommended to guide early development siting. Some layers are large and may load slowly depending on your web connection. Many of you are contributors to the datasets used in the interactive map. Your contribution is greatly appreciated. Please browse the list of contributors which provides web-links to the various agencies. Many of you are stakeholders, researchers and developers. We hope you find this site helpful, useful, and inspiring. Your feedback is welcome. Please share this wealth of information with your colleagues. Thank you all who helped bring this information to the public including the Commission on Mineral Resources who funded this project. From C. L. Morris.

## 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 – <http://www.nbmj.unr.edu/dox/of065.pdf> (White Pine Co), <http://www.nbmj.unr.edu/dox/of066.pdf> (Pershing Co), <http://www.nbmj.unr.edu/dox/of067.pdf> (Lyon Co). County officials/contacts: Pershing County, Karen Wesner [kwesner@pershingcounty.net](mailto:kwesner@pershingcounty.net) (775) 273-2342; Lyon County, <http://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.nbmj.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.

## Geothermal Resources Council

- ◆ GRC 2008 Annual Meeting – October 5-8, 2008, Peppermill Resort Hotel, Reno, Nevada  
*Geothermal Is Gaining Steam.* – [www.geothermal.org/meet.html](http://www.geothermal.org/meet.html)

## 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>

**From Geothermal Resources Council** – <http://www.geothermal.org>

- ◆ **Western Governors’ Association Annual Meeting -- June 29-July 1, 2008** at Teton Village near Jackson Hole, Wyoming. Governors from across the West come together to discuss climate change policy initiatives and adaptive strategies, improving management of our water resources, the future of energy resources and preserving critical wildlife corridors..<http://www.westgov.org/wga/meetings/am2008/index.htm>

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

- ◆ November 2007 – New media contact for Nevada PUC  
Sean Sever, Carson City resident, has been named the new Public Information Officer/Consumer Representative. Contact information 775-684-6118; [ssever@puc.state.nv.us](mailto:ssever@puc.state.nv.us)
- ◆ 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](mailto: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
  - PROGRAM OFFICER – Peggy Brown, Central Point of Contact for the Great Basin Center for Geothermal Energy. Email: [geothermal@mines.unr.edu](mailto: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/Winnemuca/>
- ◆ **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/prog\\_ogg.htm](http://minerals.state.nv.us/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 - U.S. Geological Survey Publications for the Western United States** - <http://geopubs.wr.usgs.gov/>

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  
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Lakewood, Colorado 80228-8213

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](mailto:clmorris@govmail.state.nv.us) (email).