



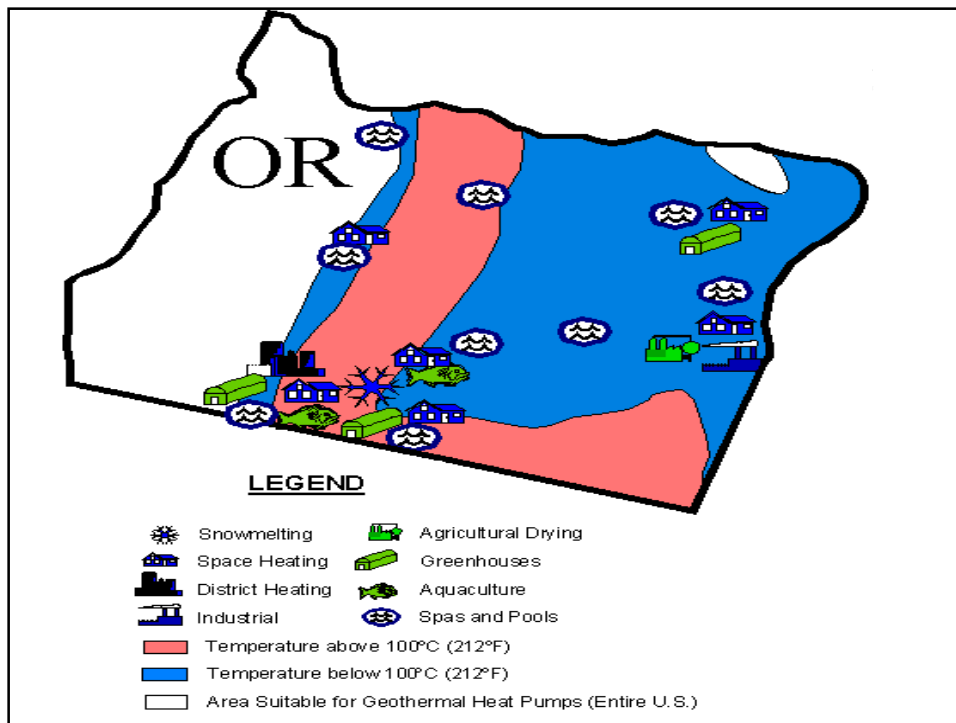
GEOPOWERING THE WEST

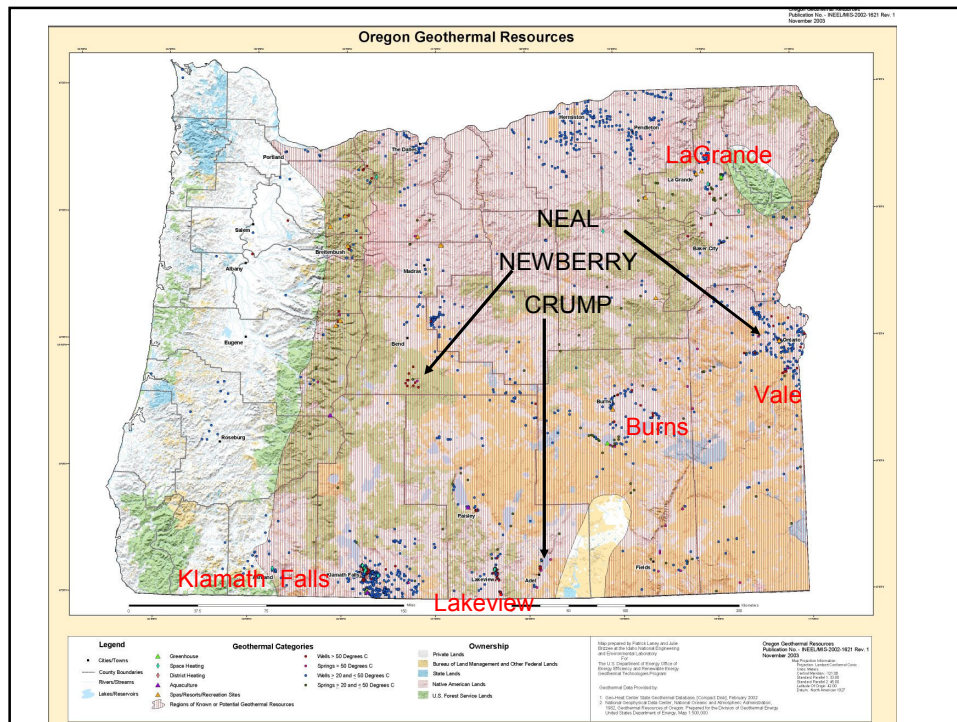


OREGON DEPARTMENT OF ENERGY

GEO THERMAL ENERGY in OREGON 2008

Alex Sifford
Sifford Energy Services





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Recent Developments

- Growth & RPS spur demand for power
- Economic development efforts
- Oregon Geothermal Working Group 2005
- More industry activity than last 20 years



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U.S. Geothermal

- Neal Hot Springs indicates a likely reservoir temperature of 311°F to 320°F
- Gravity and magnetic surveys in 2007
- Drilling commenced May 7, 2008
- Current development plan anticipates 26 MW of power production

Source: www.usgeothermal.com



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Nevada Geothermal

- Crump estimated at 40 – 60 MW
- NGP has done some passive exploration
- Next steps are reservoir drilling, testing and confirmation and project feasibility studies.

Source: www.nevadageothermal.com



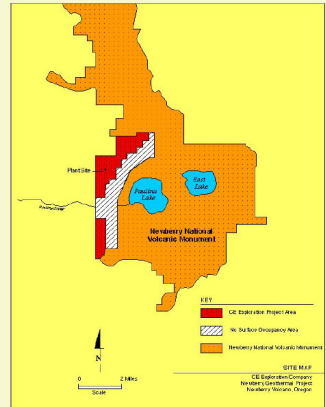
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Newberry Geothermal Project

- 30-MW project developed by BPA, CalEnergy and EWEB
- Well-conceived, successful public involvement effort
- Project approved in 1994
- Exploration drilling failed to locate a reservoir
- Project relocated to Glass Mountain in 1996



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Davenport Power

- Davenport Power is Project Operator for Northwest Geothermal Co. at Newberry
- 60 to 120 MW of power to Pacific Gas & Electric Co.
- Drilling preparation & environmental work began in 2006
- Drilling commenced late April 2008
- Plans first 30 MW in late 2009, second 30 MW in 2010

Source: www.davenportpower.com



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Newberry Well 55-29



Rig used to look for steam, drawn directly from the oil & gas industry.

Blow-out prevention equipment is a critical part of this operation.

20 truckloads of equipment alone



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- Collaborate with all stakeholders in the geothermal energy community.
 - Renewable Northwest Project, E3 Strategies, the Energy Trust of Oregon;
 - USDA Forest Service, USDI Bureau of Land Management
 - Oregon Institute of Technology, Oregon Department of Geology and Mineral Industries, ODOE



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- Renewed interest from stakeholders in geothermal energy e.g. 50 plus attendees at recent Bend meetings.
- Industry, government agencies, lawyers, engineers, other consultants, the press and environmental organizations.
- Educating a new workforce about geothermal energy.
- A statewide geothermal interactive GIS database now on DOGAMI website



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- Public involvement at an early stage
- Awareness of precautions currently being taken
- Awareness of federal land management laws
- Closer tie between the REWG and the federal agencies