

# National Geothermal Database System (NGDS)

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- The US Department of Energy (DOE) announced the establishment of the National Geothermal Data System (NGDS) in May 2009.
- The NGDS is a distributed network of databases that are collectively building a system for acquisition, management and maintenance of geothermal and related data.
- Access to these distributed data provided through desktop application (Geothermal Desktop) as well as via the web sites of member databases.
- The NGDS will be designed by using and adapting existing technology as well as emerging informatics standards and protocols.

- Ultimately, the NGDS will be able to handle the full range of geoscience and engineering data pertinent to geothermal resources and will incorporate data from the full suite of geothermal resource types.
- It will be able to handle data on geothermal site attributes, power plants, environmental factors, policy and procedure data, and institutional barriers (e.g., transmission infrastructure access, risk mitigation).
- It will provide resource classification and risk assessment tools to help encourage the development of more geothermal resources.

# Who is involved

- Boise State University
  - GeoStrat / NGDC-core
- Stanford Geothermal Program
- Great Basin Center for Geothermal Energy
- Energy Geosciences Institute (EGI)
- Arizona Geological Survey
  - Geosciences Information Network (GIN)
- Geo-Heat Center
- USGS
- Geothermal Energy Association

# Geo-Heat Center

- Website
  - PDF files (Bulletin and Technical papers)
  - Direct-Use Information
  - Collocated communities
- Legacy Data
  - Library
  - 35 mm slides and pictures
- Well and Springs Database
- Case Studies

# Bob Lawrence and Associates

- Geo-Heat Center - Sub Award
  - Conduct State Direct Use Surveys
    - 9 states
    - Potential energy use and savings
    - Potential environmental impacts
    - Potential employment
  - Publish the Geo-Heat Center Quarterly Bulletin
  - Information Dissemination
  - Technical Assistance

# Oregon Institute Of Technology 280 kW Geothermal Power Plant



**Metasys** | Item Edit View Action Insert Tools Query Help | guest Logout Exit

**Geo Power Control**

Hotwells-Geo Power

- Hot Wells
- Power Plant
- Geo Power**
- Power Plant

**OIT Geothermal Heating & Power Plant**

Geo Power Enable:  True  
 Tank Setpoint: 2.25 psi  
 Cooling Tower Enable:  True  
 Tower Temp Setpoint: 60.0 deg F  
 Reset High Water Alarm:  False  
 Outside Air Temp/Humidity: 45.7 deg F, 39.7 %RH

Geo Tank Pressure: 2.36 psi  
 Evap In Pressure: 18.099 psi  
 Diff. Pressure: 16.8 psi  
 Condenser Flow: 1,268.0 gpm  
 Evap. Out Pressure: 1.377 psi  
 Temp From GPP: 160.9 deg F  
 CWS Temp: 61.9 deg F  
 CWR Temp: 75.5 deg F  
 Tank Temp Out: 162.3 deg F  
 Power Plant Bypass: 0.0 % open  
 Temp To GPP: 196.1 deg F  
 CWP-1:  On  
 Basin Temp: 62.2 deg F  
 Owens Bypass Valve: 19.1 % Cmd  
 Evap Flow: 582.5 gpm  
 High Water Pressure:  False  
 Sediment Separator: Normal

**Well 5 Pump**

Status	<input checked="" type="checkbox"/> On
Command	<input checked="" type="checkbox"/> On
Speed Out	68.1 %
Amperage	61.5 A
VFD Fault	Normal

**Well 6 Pump**

Status	<input checked="" type="checkbox"/> On
Command	<input checked="" type="checkbox"/> On
Speed Out	68.1 %
Amperage	70.8 A
VFD Fault	Normal

**Well 2 Pump**

Status	<input type="checkbox"/> Off
Command	<input type="checkbox"/> Off
Speed Out	0.0 %
Amperage	0.0 A
VFD Fault	Normal

Well 5: 193.9 deg F, 324.1 gpm  
 Well 6: 197.0 deg F, 263.9 gpm  
 Well 2: 84.5 deg F, 0.0 gpm

**Tower Pump**  
 Status:  On  
 Command:  On  
 Speed Out: 56.5 %  
 Amperage: 30.2 A  
 VFD Fault: Normal

**Tower Fan**  
 Status:  On  
 Command:  On  
 Speed Out: 57.5 %  
 Amperage: 19.2 A  
 VFD Fault: Normal

**Power Plant Data**  
 Status:  Off  
 Command:  Off  
 Speed Out: 0.0 %  
 Amperage: 0.0 A  
 VFD Fault: Normal

From Supply  
 To Injection

Power Plant | Cooling Tower | Power Monitor | Legend

Server: 3/22/2010 04:14 PM PDT

Start | Windows... | Inbox - ... | Barbara ... | Kathy <k... | Microsoft... | Windows... | Welcome... | Search R... | **Metasys** | 4:07 PM

# Dedication of Oregon's First Geothermal Combined Heat and Power Plant

April 20, 2010 @ 10:00 AM

Oregon Institute of Technology

