

# AzGeo Work Group Meeting Understanding Southern Arizona's Geothermal Resource

March 23, 2007  
Tucson Botanical Gardens  
2150 N. Alvernon Way, Tucson, Arizona



## Meeting Agenda

### 10:00 - 10:20 a.m. Welcome & Meeting Participant Introductions

*Lee Allison, Arizona Geologic Survey*

#### **Tucson Electric Power's Green Watts Program**

*Betsy Bolding, Tucson Electric Power*

TEP will provide an overview of their Green Watts and Sunshare programs.

### 10:20 – 11:00 a.m.

#### **Policy Update**

#### **Utility Portfolios and Geothermal Generation --Large and Small**

*Roger Hill, Sandia National Laboratories*

A brief snapshot of the Western State's portfolios will be given and how risks of generation can be mitigated through the use of renewables. Geothermal power plants can fit into these portfolios or they can be used for demand side supply.

#### **Renewable Energy Standard (RES)- Potential Impacts on Geothermal**

*Amanda Ormond, Ormond Group llc*

The Renewable Energy Standard (RES) to increase the requirement for utilities obtain more energy from renewable energy resources is pending final approval by the Attorney General. If this policy gets enacted what will it mean for geothermal energy development? This presentation will include a summary of the policy and the financial incentives that could be available to encourage the development of geothermal and other forms of distributed renewable energy.

### 11:00 – 11:50 a.m.

#### **Case Studies**

#### **Greenhouses**

*Jacques van der Lelij, Willcox Greenhouse*

The Willcox area is home to several greenhouse operations and Willcox Greenhouse is considering the use of geothermal. The U.S. Department of Energy has been providing technical assistance to this operation to help assess the potential of using geothermal to heat a portion of its operation. The President of the greenhouse will share his experience on the evaluation process and the reasons for choosing geothermal.

**Heat Extraction from Mine Water**

*Mike Canti, U.S. Department of Energy*

The U.S. Department of Energy has been working on developing techniques to extract thermal energy from the waters that fill old mining operations. Hear about recent developments and how thermal extraction may work in Arizona.

**12:00 – 1:00 p.m.**

**Lunch – Hosted by Tucson Electric Power Company**

Enjoy a networking lunch and the desert environs at the Garden (An RSVP is required to attend lunch)

**1:00 – 1:30 p.m.**

**National Assessment**

**Summary of the new MIT report *The Future of Geothermal Energy – Impact of Enhanced Geothermal Systems on the United States in the 21<sup>st</sup> Century***

*Joel Renner, Idaho National Laboratory*

The January 2007 report, prepared by an MIT-led interdisciplinary panel, suggests that 100,000 MWe of electric generation capacity can be provided by enhanced geothermal systems within 50 years with modest investments in R & D. The report’s findings and recommendations will be summarized. For a copy of the report see <http://geothermal.inl.gov/>

**1:30 – 2:15 p.m.**

**Arizona Resource Assessment and Uses**

**Southern Arizona’s Thermal Resources**

*Paul Morgan, Northern Arizona University*

How much and where does the state’s resource reside? Dr. Morgan will discuss the temperature gradients and geothermal resource availability found in Southern Arizona.

**Geothermal Applications and Resource Features**

*Jim Witcher, Witcher and Associates*

We know we have a geothermal resource but how can it be used? This presentation will include a discussion of what you can do with geothermal energy, what technologies are available and how to work with the available resource.

**2:15 – 3:00 p.m.**

**Open Dialogue on the Southern Arizona’s Potential**

*Speakers and Attendees*

To apply what has been presented in the day we will conclude the meeting with an open discussion on how Southern Arizona can begin to capitalize on the energy beneath our feet.



**An RSVP is required for all attendees. Please call 928-528-2380 or email [Pat Ponce](mailto:pat.ponce@nau.edu) at Northern Arizona University, by Friday, March 16 to reserve your place.**