



**GEOPOWERING
THE WEST**



CA Geothermal Summit Workshop

Co-Sponsored by the
California Energy Commission
GeoPowering the West Initiative

Welcome!

Purpose:

Mobilize Geothermal Stakeholders in CA to:

- Meet Renewable Portfolio Standard Goals;
- Address Local, Regional and Industry Needs; and
- Create Sustained Economic and Environmental Benefits to CA



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Welcome!

Goal:

Establish dialogue between California's geothermal key stakeholders to promote responsible geothermal development leading to the formation of a CA Geothermal Collaborative



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Agenda

- Welcoming Remarks
- US DOE Program
- California Policy
- Renewable Portfolio Standard-CEC
- Renewable Portfolio Standard-CPUC
- CA Geothermal Resources
- Geothermal Opportunities and Challenges in CA
- Approaches and Partnerships for CA
- Discussion/Closing Remarks



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California Energy Commission

Geothermal Efforts

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Geothermal Program/PIER Renewables Resource Manager

California Geothermal Summit Summit
May 20, 2004

Overview

- Geothermal Program
- PIER Program
- Geothermal Target Solicitation Results
- CA Geothermal Collaborative



The Geothermal Program (GRDA)

- Assembly Bill 1905
- Geothermal Resources Development Account (GRDA)
- Since 1981
- Planning, Development, and Mitigation

The Geothermal Program Portfolio

- Total Portfolio - \$46 million
- Total Number of Projects – 173
- Total Active Portfolio - \$7.5 million
- Number of Active Projects - 10



The Public Interest Energy Research Program (PIER)

- Established in 1996 for RD&D
- Seeks to improve the quality of life for CA citizens by developing environmentally sound, safe, reliable, and affordable electricity services and products
- Six subject areas



The Public Interest Energy Research Program (PIER)

- Buildings
- Environmentally Preferred Advanced Generation
- Industrial/Ag/Water
- Energy-Related Environment
- Energy Systems Integration
- Renewables Energy Technologies



The PIER Renewables Project Portfolio is Large and Very Active

- Total Portfolio - \$63 million
 - Note: Includes \$10 million in SB5X (DPPP)
- Total Active Portfolio - \$51 million
- Number of Active Contracts - 25
- Number of Active Projects – 60
 - 5 Geothermal Projects
 - ~\$3 million



Geothermal Target Solicitation

- **Program Opportunity Notice Released December 2003**
- **Up to \$7.2 Million Available**
 - \$4 million PIER
 - \$3.2 million GRDA
- **Notice of Proposed Awards Posted**
- **Commission Business Meeting for Approval**



Geothermal Target Solicitation

Proposed Awards

- **PIER (\$4.0 million)**
 - 7 Projects
- **GRDA (\$2.6 million)**
 - Development (3 Projects, \$1.65 million)
 - Mitigation (4 Projects, \$0.8 million)
 - Planning (1 Project, \$0.15 million)



PIER Renewable/Geothermal Activities Are Responsive to Policies

- RPS and Renewable Development
 - Several activities are significant in assisting in the RPS
 - Technologies being developed will help achieve the RPS goals and provide renewable development in California



CA Geothermal Collaborative

- A Forum to allow dialogue between key geothermal stakeholders to promote responsible geothermal development in California

