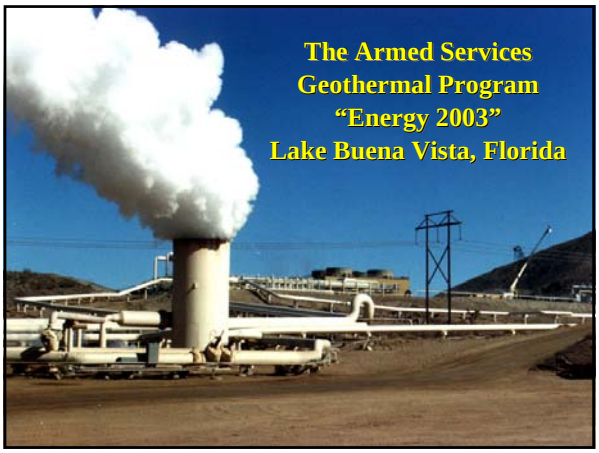
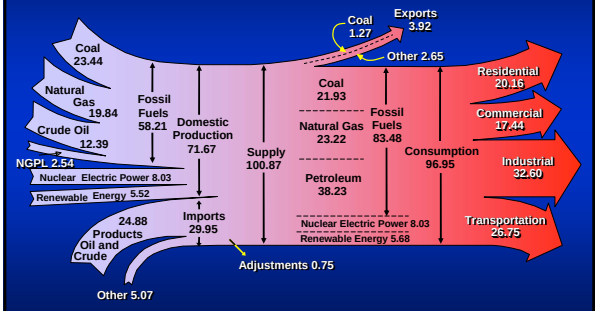


The Armed Services Geothermal Program "Energy 2003" Lake Buena Vista, Florida

Briefing Content

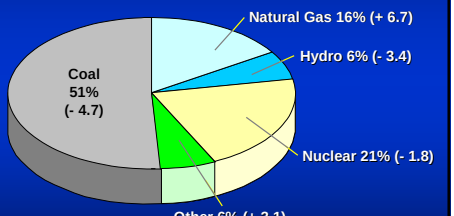
- Market Perspective
- Armed Services Geothermal Program Overview
- Business Model vs. Government Model
- Geothermal Development Project Areas

U.S. Energy Flow 2001
(Quadrillion Btu)



Source: Energy Information Administration/Annual Energy Review 2001

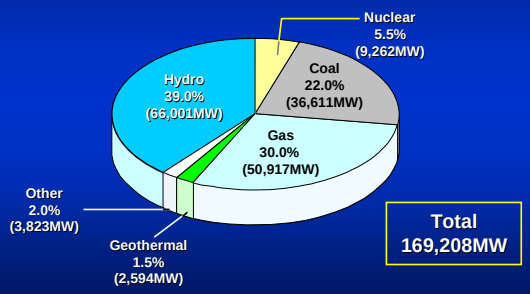
U.S. Electric Power Generation by Source



Includes petroleum, wood, waste, geothermal, solar, wind, and other.

Source: DOE, Energy Information Agency, annual Energy Review 2001, August 2002

Existing Generation by Source Western States Coordinating Council



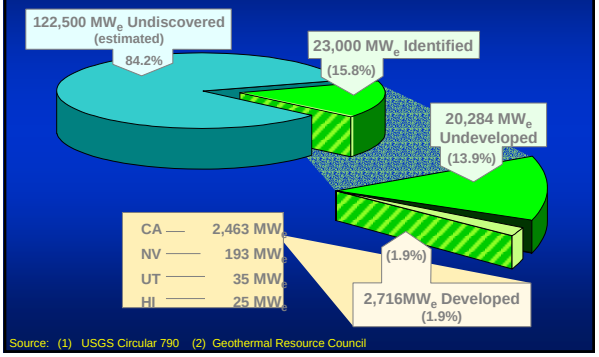
Source: Western States Coordinating Council, 2002

A Comparison of Western States Coordinating Council Area Generation by Source: 2000 - 2002

Hydro	65,279	66,001	+ 1.1%
Nuclear	9,213	9,262	+ 0.1%
Coal	36,542	36,611	+ 0.2%
Gas	36,386	50,917	+ 39.9%
Geothermal	3,137	2,594	- 17.3%
Other	7,947	3,823	- 51.9%
TOTAL	158,504	169,208	+ 6.3%

Source: Western States Coordinating Council, 2002

Electricity Grade Resources Western U.S.



Source: (1) USGS Circular 790 (2) Geothermal Resource Council

Program Authorization

- 10 USC 2394 - Allows for 30 year contracts for energy production
- 10 USC 2689 - Allows for development of geothermal resources beneath military-controlled lands (fee simple or withdrawn)
- 10 USC 2483 - Allows for sale of electricity from renewables or cogeneration facilities

GPO Mission

- To locate & develop resources on military facilities anywhere in the world
- Two-pronged approach:
  - * Resource Development
  - * Resource Management

Geothermal Program Office Role

- Evaluate the resource
- Provide permitting/process guidance
- Oversee the PPV contracting process
- Technical training for on-site personnel
- Maintain resource management expertise
- Contract administration
- Provide economic analyses
- Industry and government interface

Business Model "Farm-Out"

- Tried & True Energy Business Mechanism
- Establish Resource Potential
- Pre-Qualify Third-Party Investors
- Proposals/Negotiations
- Compensation
- Navy oversight - resource mgmt.

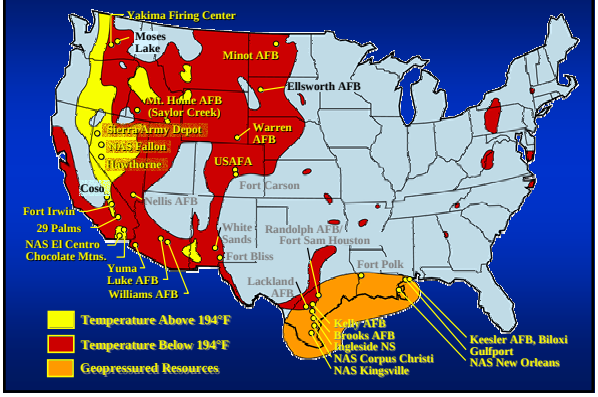
Business Model vs. Government Model

- Risk Reduction - Success Increase
- Flexibility
- Market Conditions
- Resource Quality/Viability
- Fair Market Value

"Acid Test"

- If deal is too tough, the industry won't participate.
- Corollary: If economics are not favorable, then developers won't invest.

Geothermal Resources



Military Facilities with Known Geothermal Potential

- Coso - China Lake
- Naval Air Station Fallon
  - Mainside
  - Dixie Valley
  - Bravo 19
- Hawthorne Ammunition Depot
- Naval Air Field El Centro
- Study of 15 other military locations – August 30 due date

Coso Geothermal Field

Mission

To locate, develop and manage geothermal resources wherever they occur on U.S. military facilities

Approach

- Public-private venture capital projects
- "Other people's money"
- Share in revenue/benefits

Status/Highlights

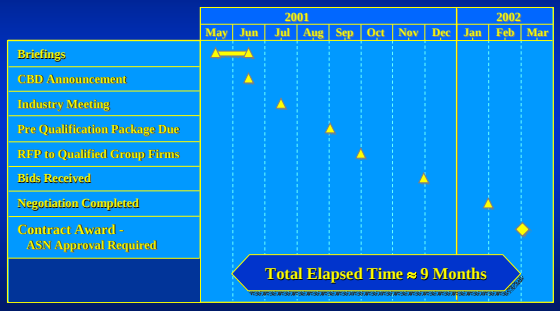
- First power from Coso in 1987
- Full power in January 1990
- Nearly 25,000 GWh electricity since first power
- Average on-line availability 98%
- Anticipated reservoir lifetime is 30 years although 50 years is not unlikely
- Drilling two deep exploratory holes in new prospective area at Coso

NAWCWD Role

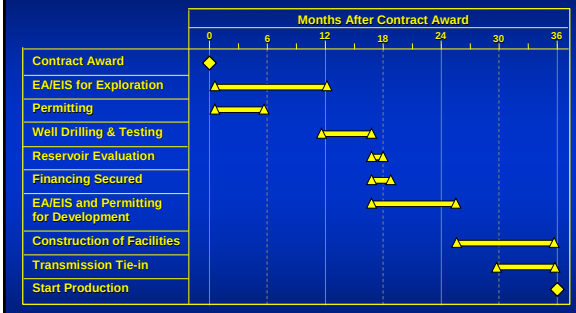
- Geothermal Program Office at China Lake
- Host 180MW of Navy electrical production at Coso facility

Program Manager:
Dr. Frank Monastero

Project Milestones - Leading to Contract Award



Milestones for Geothermal Development at NAS Fallon

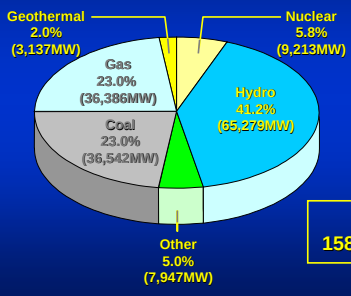


Potential Benefits to Services

- Direct Power Purchase
- Electricity Bill Offset
- Revenue Sharing
- "Green Power"

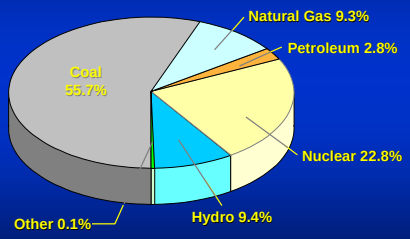
The Coso Geothermal Success Story
How about an encore?

Existing Generation by Source
Western States Coordinating Council
(Capacity in MW)



Source: Western States Coordinating Council, 2000

Electric Power Generation
by Source



Source: DOE, Energy Information Agency, Annual Energy Review 1999, August 2000