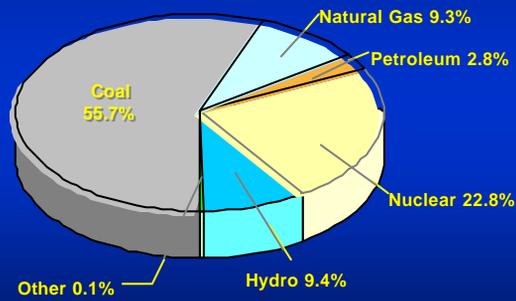


Briefing Content

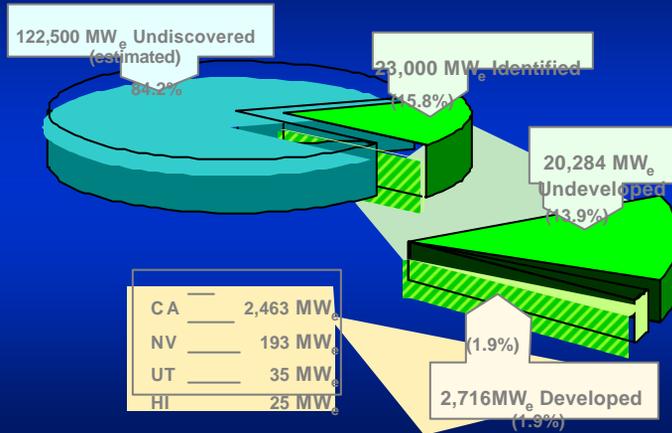
- **Market Perspective**
- **Armed Services Geothermal Program Overview**
- **Business Model vs. Government Model**
- **Geothermal Development Project Areas**

Electric Power Generation by Source



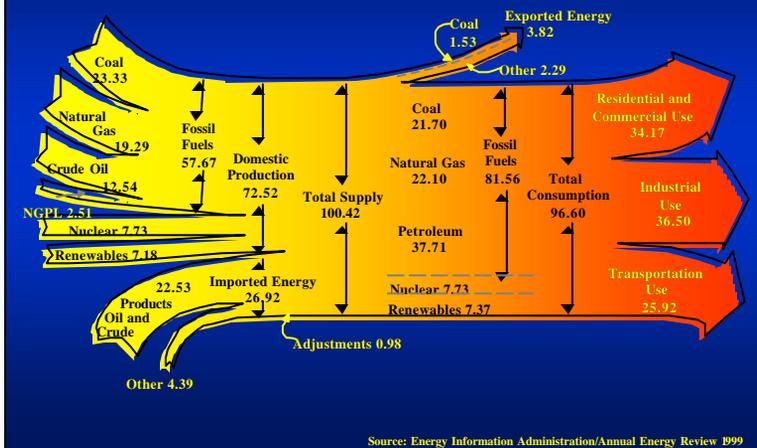
Source: DOE, Energy Information Agency, Annual Energy Review 1999, August 2000

Electricity Grade Resources Western U.S.

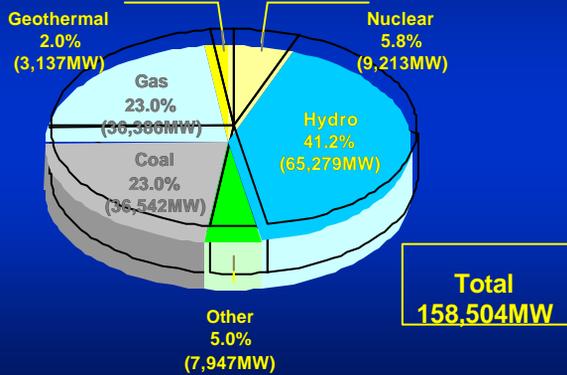


Source: (1) USGS Circular 790 (2) Geothermal Resource Council

U.S. Energy Flow, 1999 (Quadrillion Btu)



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



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- **10 USC 2689 - Allows for development of geothermal resources beneath military-controlled lands (fee simple or withdrawn)**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”

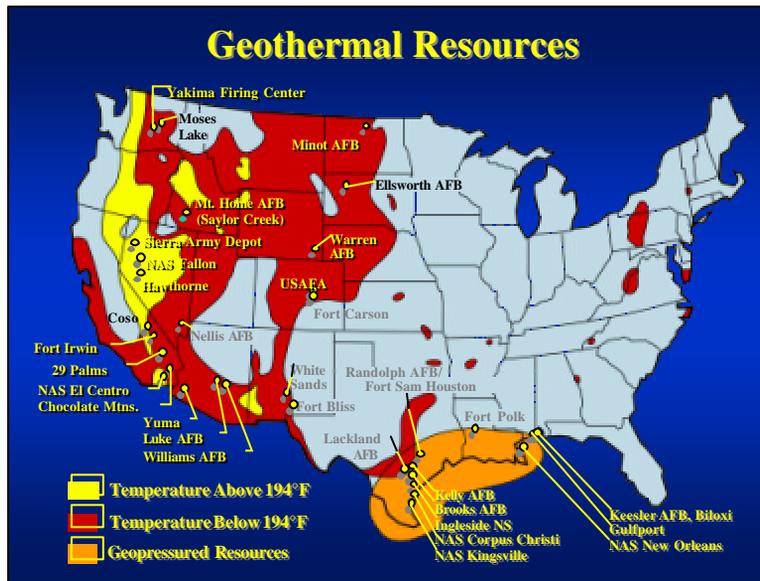
- **Tried & True Energy Business Mechanism**
- **Establish Resource Potential**
- **Pre-Qualify Third-Party Investors**
- **Proposals/Negotiations**
- **Compensation**
- **Navy oversight - resource mgmt.**

Business Model vs. Government Model

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

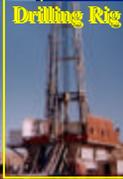
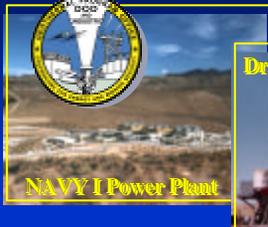
“Acid Test”

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



- ### Navy Facilities with Known Geothermal Potential
- **Coso - China Lake**
 - **Naval Air Station Fallon**
 - * Mainside
 - * Dixie Valley
 - * Bravo 19
 - **Naval Air Field El Centro**

Coso Geothermal Field



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

Mission

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

Approach

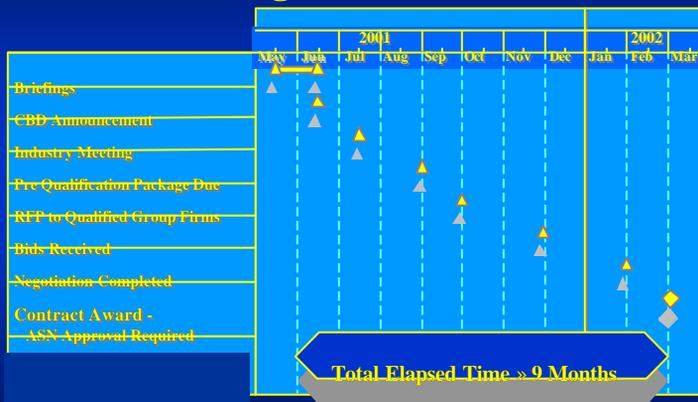
- Public-private venture capital projects
- "Other people's money"
- Share in revenue/benefits

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?

