

Getting to the Core Rules and Regulations for Geothermal Development

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Geothermal Energy Utilization

Oil & Gas Development Conference

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HANDLE WITH EXTREME CARE:

**This Product Contains Minute Electrically Charged
Particles Moving at Velocities in Excess of Five
Hundred Million Miles Per Hour.**

THIS IS A 100% MATTER PRODUCT:

**In the Unlikely Event That This Merchandise Should
Contact Antimatter in Any Form, a Catastrophic
Explosion Will Result.**

Texas Geothermal Policy

§ "It is declared to be the policy of the State of Texas that: (1) the rapid and orderly development of geothermal energy and associated resources located within the State of Texas is in the interest of the people of the State of Texas;"

§ Geothermal Resources Act of 1975

History of Geothermal Energy Interest

- § 1960s/1970s energy crisis
 - § Geothermal Steam Act of 1970
 - § state laws encouraging geothermal exploitation
- § increased environmental interest/Mid East tension
 - § Department of Energy initiatives starting in 2000
- § increased cost of oil and gas

Geothermal Rights

Geothermal Rights – Federal

- § Geothermal Steam Act of 1970

 - § Department of the Interior

- § Outer Continental Shelf Lands Act

- § Department of Defense Lands

Geothermal Rights – State

Leasing – Other Issues

§ Term

Leasing – Other Issues

§ Migration

§ Oil & Gas versus Geothermal Rights

§ Environmental Liability

Environmental Laws

Environmental Laws – Federal

- § Coastal Zone Management Act
- § Endangered Species Act
- § National Environmental Policy Act (NEPA)
 - § requires an environmental impact statement

Environmental Laws – State

§ State environmental laws

Environmental Laws – Local

§ Water conservation districts

§ Other county and municipal laws

Environmental Challenges to Renewables

§ Parties

- § American Bird Conservancy
- § Armstrong Ranch
- § Audubon Outdoor Club of Corpus Christi
- § Coastal Bend Audubon Society
- § Frontera Audubon Society
- § Galveston Bay Conservation and Preservation Association
- § Houston Audubon Society
- § King Ranch, Inc.
- § Lower Laguna Madre Foundation
- § Matagorda Bay Foundation
- § Travis Audubon Society

Environmental Challenges to Renewables

§ Agencies

- § Texas Coastal Coordination Council
- § Public Utility Commission of Texas
- § US Fish & Wildlife

§ Courts

- § Travis County, Texas state court
- § United States federal court

Development

Development – Federal

§ Geothermal Steam Act of 1970

§

Development – State

- § Surface owners

- § Classification

 - § Mineral

 - § Texas, California, Alaska, Arizona, Hawaii

 - § Water

 - § Wyoming, Utah

 - § Neither

 - § Idaho, Washington, Montana

Development – State

- § Drilling permits/regulations
 - § On or off school fund land
- § Reporting requirements
- § Safety requirements
 - § Blowout prevention standards

Development – State

- § Power line easements

- § State (and possibly federal) approvals for transmission lines

Ryan's Ideas

Legislative Initiatives

Things to think about...

§ Governor's business initiative

§ Legislative session

Wind-Related Initiatives

The Next Texas Tea Is Clear

§ 1999

§ Installed Wind Generation Capacity: 880 MW

§ Texas Legislature Mandate: +2,000 MW by 2009

§ 2005

§ Installed Wind Generation Capacity: ~2,000 MW

§ Texas Legislature: +3,000 MW by 2015 / 10,000 MW by 2025

28. GEQ We Get There?

Competitive Renewable Energy Zones

CREZ: Zone in which **renewable energy** resources and **suitable land areas** are sufficient to develop generating capacity from renewable energy technologies.

Financial Commitment

PUCT considers developers' financial commitment in deciding whether to designate an area a CREZ **and whether to issue a certificate of convenience and necessity.**

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So What?

§ Dispatch priority proceeding

§ Nesting??