Geo-sequestration in US: Environmental and Legal Implications.

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INTRODUCTION

• BACKGROUND

  • Climate Change

  • What causes it?

  • Mitigating Measures
INTRODUCTION

• BACKGROUND
  • Carbon dioxide capture and sequestration (CCS)?
  • Why the need for CCS?
  • CCS storage options
  • Geo-sequestration/geological storage and types of geological formations
  • Existing examples of geo-sequestration projects?
Overview of Geological Storage Options

1. Depleted oil and gas reservoirs
2. Use of CO₂ in enhanced oil and gas recovery
3. Deep saline formations — (a) offshore (b) onshore
4. Use of CO₂ in enhanced coal bed methane recovery
Background

Existing examples of geo-sequestration projects?

- The Sleipner project in Norway is the first large scale commercial application of CO2 storage in a deep saline aquifer in the world. (since 1996 by Statoil).
- The Weyburn Project in south-central Canada uses CO2 produced from a coal gasification plant in North Dakota for EOR (since 2000).
- The In Salah Project in Algeria is the world’s first large-scale effort to store CO2 in a natural gas reservoir (since 2004).
REGULATORY FRAMEWORK

- **International Regulatory Framework**
  These are mainly in respect of offshore geo-sequestration.
  - United Nations Framework Convention on Climate Change 1992 (UNFCCC) and the Protocol to the UNFCCC 1997 (Kyoto Protocol).
  - Protocol to the London Convention 1996 (London Protocol), which entered into force on 24 March 2006, and
Federal Regulation in US

- Clean Air Act
- Clean Water Act
- Safe Drinking Water Act
State Regulation

- Objectives of the state regulations
- Texas & Wyoming
ENVIRONMENTAL AND LEGAL IMPLICATIONS

- CAPTURING OF CO2
- TRANSPORTATION OF CO2
ENVIRONMENTAL AND LEGAL ISSUES

- Property Rights – Ownership of pore space
  - Federal position
  - State position (Texas)
- Long–term Liability
RECOMMENDATIONS and CONCLUSION

- Thank you very much for your attention