



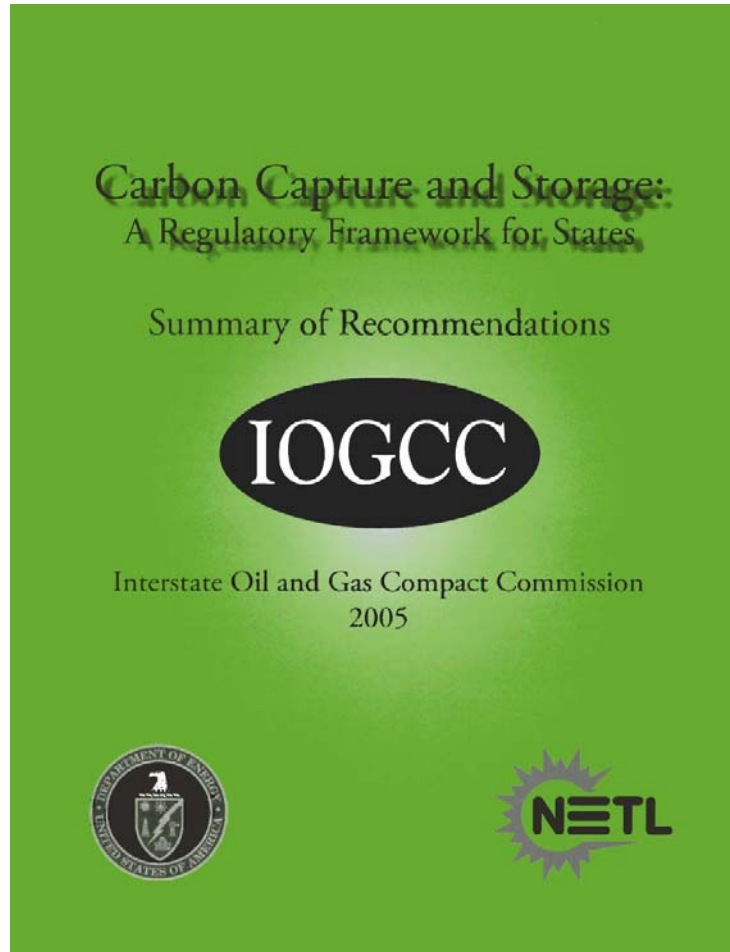
Overview of the IOGCC Phase II Carbon Capture and Geological Storage Regulatory Task Force

Phase II Task Force Objectives

1. Creation of a nationwide guidance document, **approved by the IOGCC**, which is specific enough to enable each state to develop its own statutes and regulations while at the same time helping to lay the essential groundwork for a state-regulated, but nationally consistent, “cradle to grave” system for the capture and geologic storage of CO₂.
2. Provide assistance to Regional Partnership Pilot Projects in (a) understanding and complying with regulatory requirements for field testing and injection; and (b) work with member state in implementing draft model laws and regulations and assessing adequacy of those laws and regulations.



Brief Summary of Phase I Work and Recommendations



- Industry and states have 30 years experience in the production, transport and injection of CO₂.
- States have necessary regulatory analogues in place to facilitate development of a comprehensive CCGS regulatory framework.
- CO₂ should be regulated as a commodity to allow the application of oil and gas conservation laws which will facilitate development of storage projects.
- Involve all stakeholders including general public in the development of regulatory frameworks.

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**EMMISSIONS TRADING
REGULATIONS**

**Economic
Drivers**

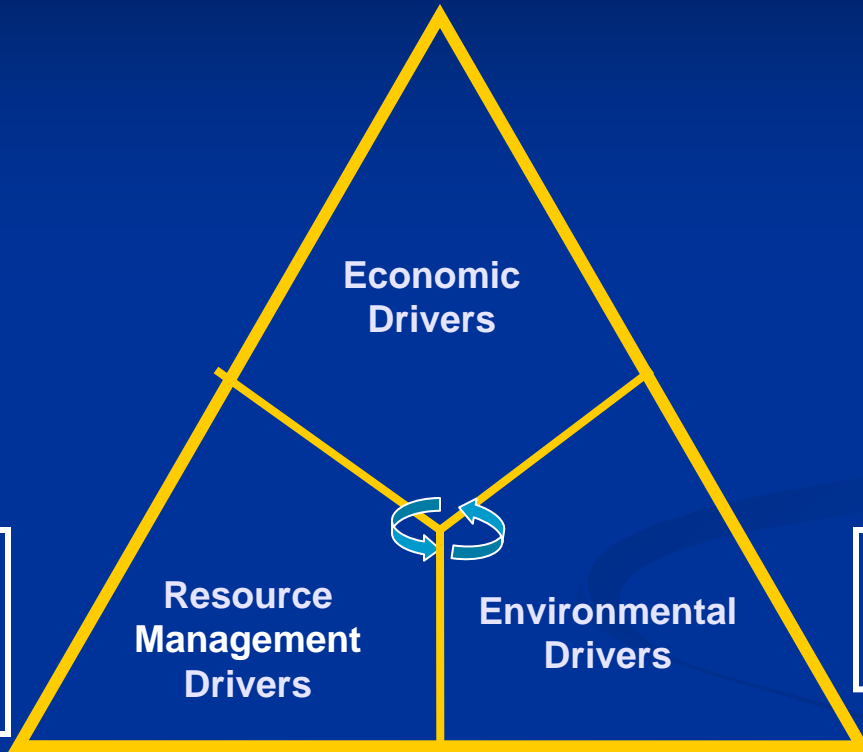
**Resource
Management
Drivers**

**Environmental
Drivers**

**OWNERSHIP
AND
RESERVOIR
PROTECTION**

**UIC AND
HEALTH &
SAFETY**

**CCS REGULATORY
FRAMEWORKS**

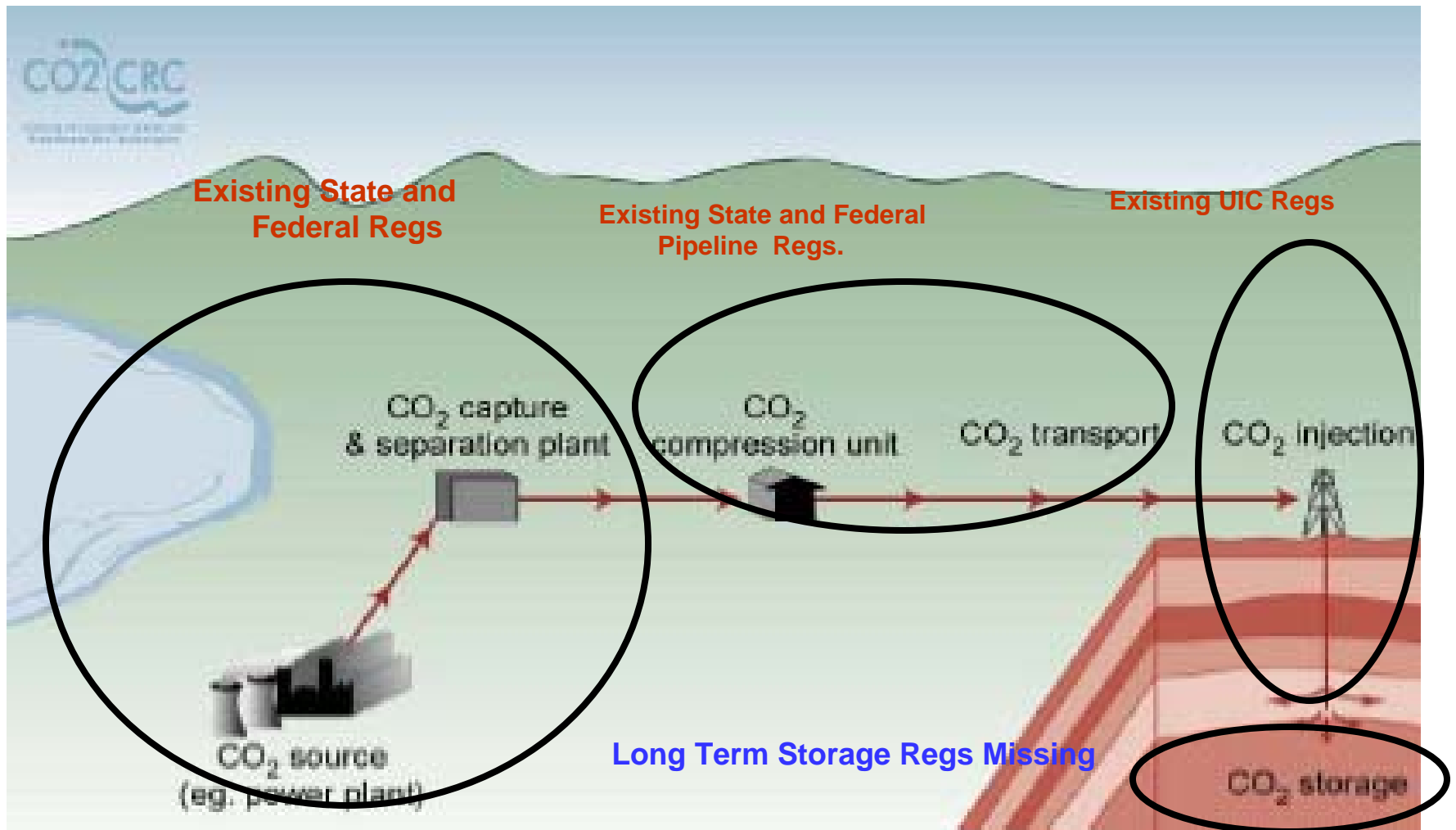


Appropriate Regulatory Framework

The Task Force strongly believes that treatment of geologically stored CO₂ as waste using waste disposal frameworks rather than resource management frameworks will diminish significantly the potential to meaningfully mitigate the impact of CO₂ emissions on the global climate through geologic storage.



CO2 CAPTURE TRANSPORTATION AND GEOLOGIC STORAGE PROCESS



Task Force Guiding Principals

- **MUST BE SEAMLESS** – maximize economic and environmental benefits, establish “cradle to grave” framework to provide for fully integrated regulatory oversight and clearly identify risk parameters for industry.
- **KEEP IT SIMPLE** – do not over-regulate for the exotic, initially address what will most likely occur, amend regulations with experience.
- **BE FLEXIBLE AND RESPONSIVE** – modify as gain knowledge with easy projects, respond to constantly changing technologies, which is a certainty, “one size” will not fit all projects.
- **“DOABLE”** - implement regulations which can be fielded now, problems will occur, but most are solvable, can not be focused on resolving every conceivable issue before initiating regulations.
- **MAINTAIN POSITIVE PUBLIC PRESENTATION** – CGS is part of a solution with economic and environmental benefits and not a waste problem waiting for a regulatory protection solution.



Guidance Document Components:

- Analysis of the U.S. Safe Drinking Water Act Relating To Carbon Capture and Geologic Storage
- Analysis of Property Rights Issues Related to Underground Space Used for Geologic Storage of Carbon Dioxide
- Overview and Explanation of the Model General Rules and Regulations
- Model Statute for Geologic Storage of Carbon Dioxide
- Model General Rules and Regulations

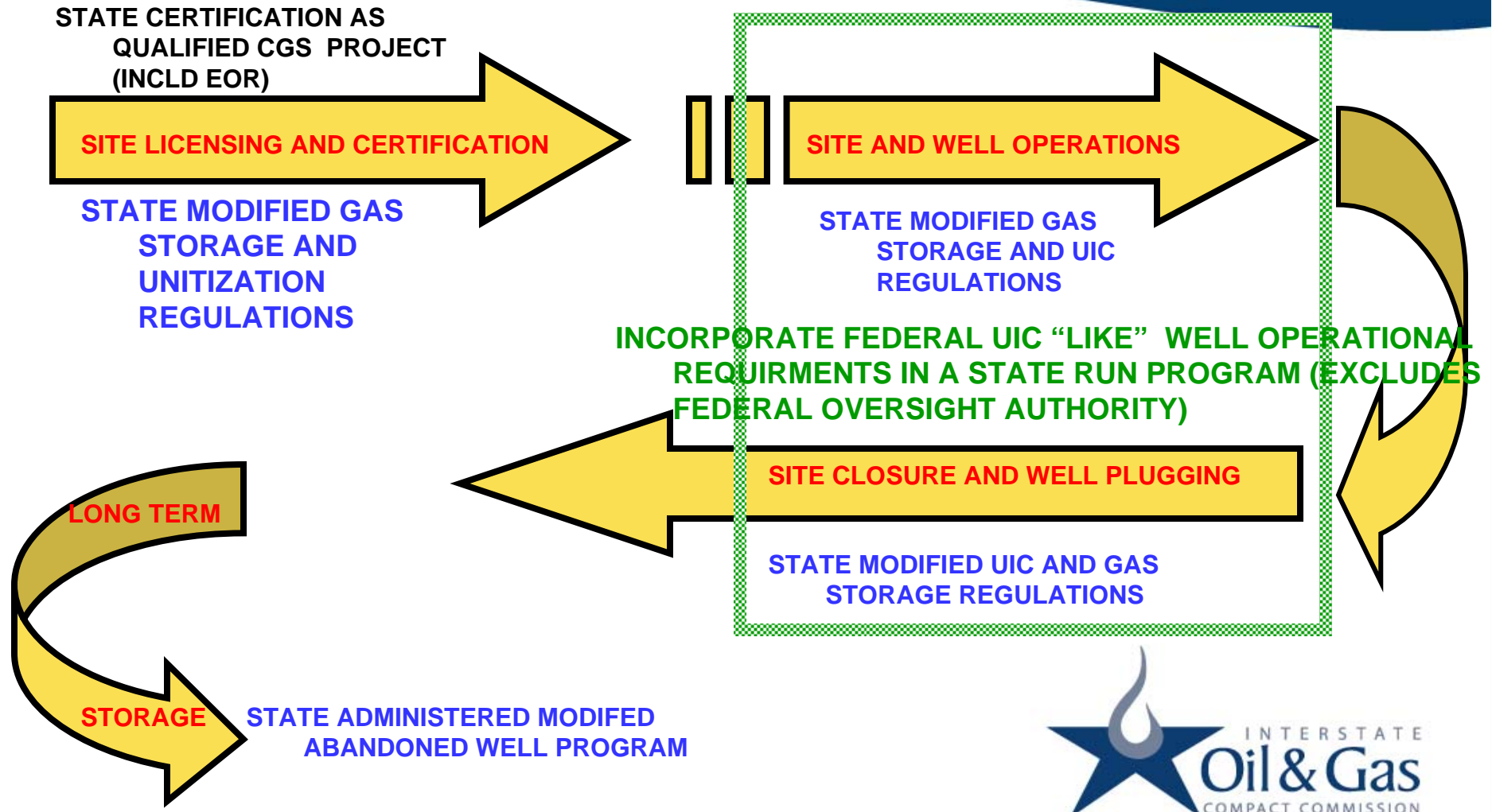


Analysis of the U.S. Safe Drinking Water Act Relating To Carbon Capture and Geologic Storage

- The Underground Injection Control (UIC) Program of the U.S. Federal Safe Drinking Water Act does not mandate the regulation of CO₂ storage by the USEPA.
- UIC Program may be applicable at the discretion of a state program, the current limitations of the UIC program make it applicable only to the operational phase of the storage project
- Given ownership issue and the proposed long-term “care-taker” role of the states, the states are best positioned to provide the necessary “cradle to grave” regulatory oversight of geologic storage of **CO₂**.



STATE ADMINISTERED "CRADLE TO GRAVE" CGS REGULATORY FRAMEWORK

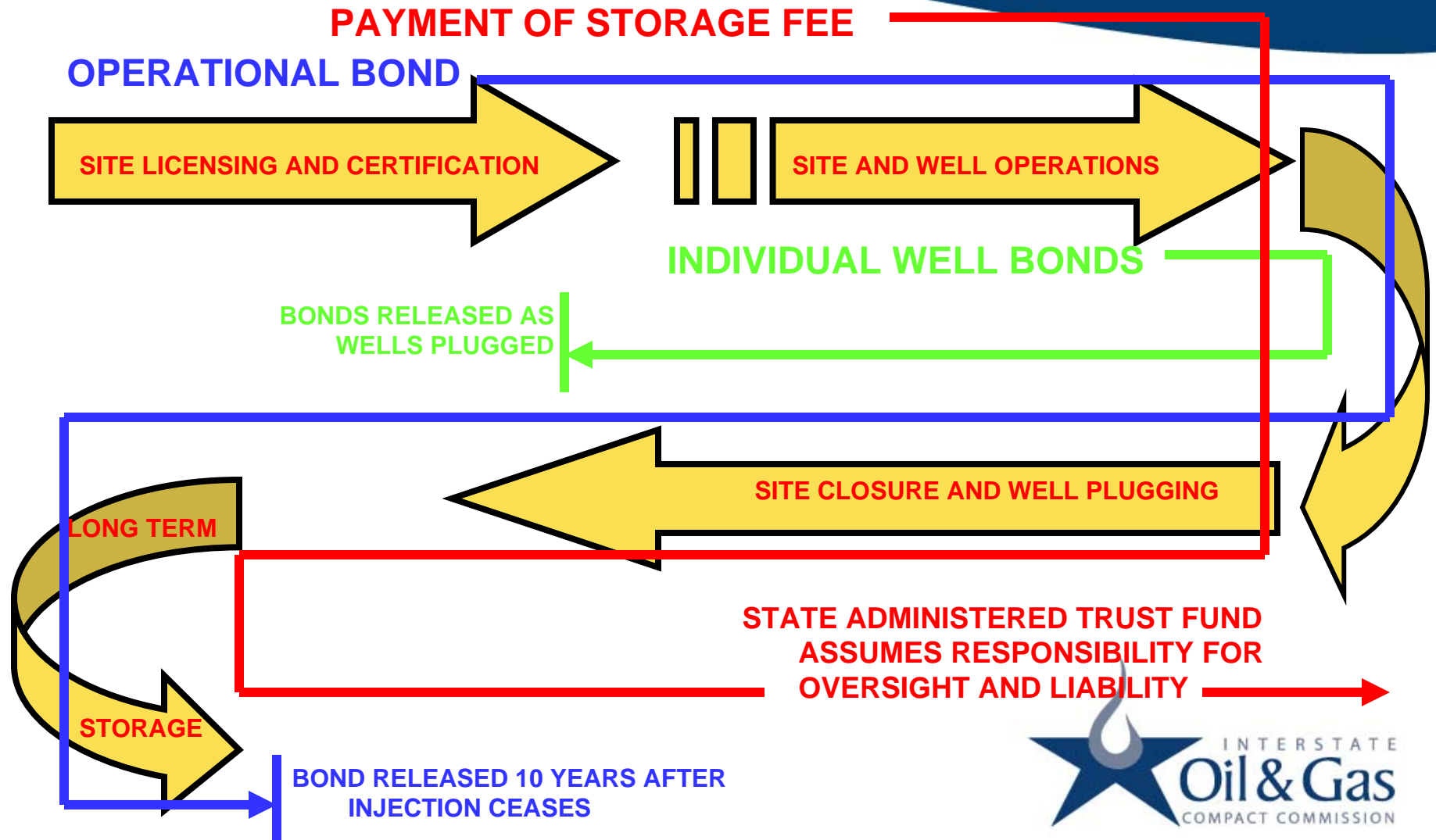


Analysis of Property Rights Issues Related to Underground Storage

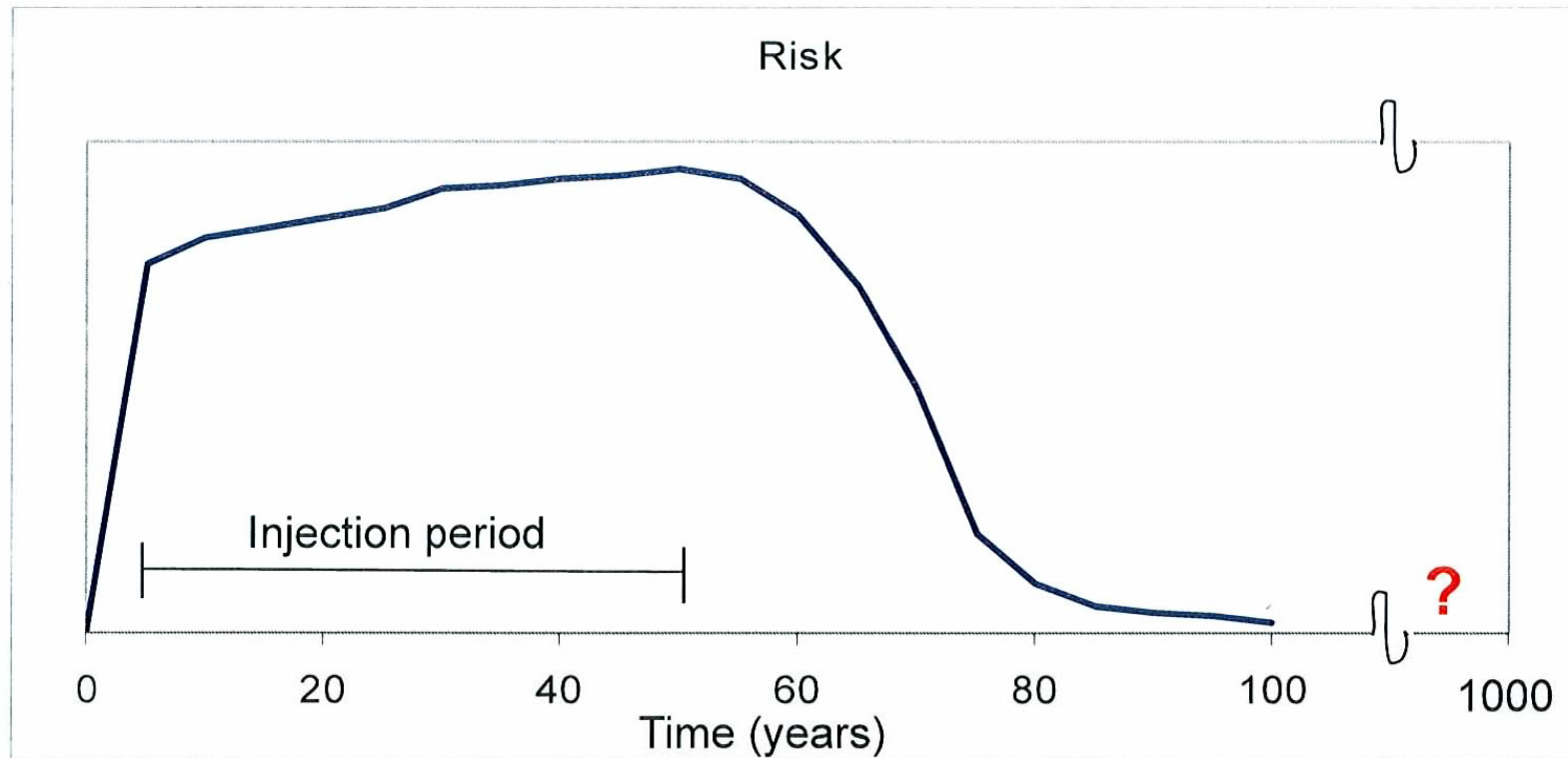
- Control of the reservoir and associated pore space used for CO₂ storage is necessary to allow for orderly development
- The right to use reservoirs and associated pore space is considered a private property right in the United States, and must be acquired from the owner.
- Control of the necessary storage rights should be required as part of the initial storage site licensing to maximize utilization of the storage reservoir.
- In the U.S., with the exception of federal lands, the acquisition of these storage rights, which are considered property rights, generally are functions of state law.



STATE ADMINISTERED "CRADLE TO GRAVE" CGS REGULATORY FRAMEWORK



The risk timeline for leakage is heavily-laden in early times.



Why does it look like this?

Pressure driver during and post injection

Most “changes” occur in early phase

Long-term effects trap larger quantities of CO₂

Seals may be affected over long-term



Summary of Primary Phase II Task Force Proposals

1. **STATES ARE PROPOSED** as the lead entities for the regulation of CGS projects, as states have the necessary regulatory tools and will promote the best interest of the state relative to initiating CGS projects in the state.
2. **REGULATORY FRAMEWORK** is a state administered program under state authority, incorporating federal UIC “like” well operational parameters. State can decide to utilize the Federal UIC Program for operational phase of project at the states’ discretion.
3. **STATES ARE PROPOSED AS THE MOST RESPONSIVE ENTITY TO ADMINISTER LONG TERM “CARETAKER” RESPONSIBILITY FOR CGS PROJECTS**, through a State administered trust fund.



Overview of Phase II Task Force Next Steps

1. Final versions of model statute and regulations circulated to Governors of IOGCC states for review in early August.
2. Guidance Document submitted to DOE/NETL August 20, 2007 for review and approval.
3. Formal release in late September 2007 following presentation to IOGCC membership at IOGCC Annual Meeting in New Orleans on September 25, 2007.
4. Dissemination of Guidance Document to states; monitoring of state legislative and regulatory efforts; and, refinement and improvement of model documents based on state experience.
5. Continuing work with Regional CO₂ Sequestration Partnerships on regulatory issues encountered in pilot projects and in possibly implementing new state laws and regulations governing the geologic storage of CO₂.
6. Task Force (Phase III) work to more fully explore ownership, pipeline transportation and site selection issues.



STATES CURRENTLY DEVELOPING REGULATIONS USING DRAFT VERSIONS OF MODEL REGULATIONS

- **New Mexico**
- **California**
- **North Dakota**
- **Wyoming**
- **Texas**
- **At least 5 other states beginning work**

