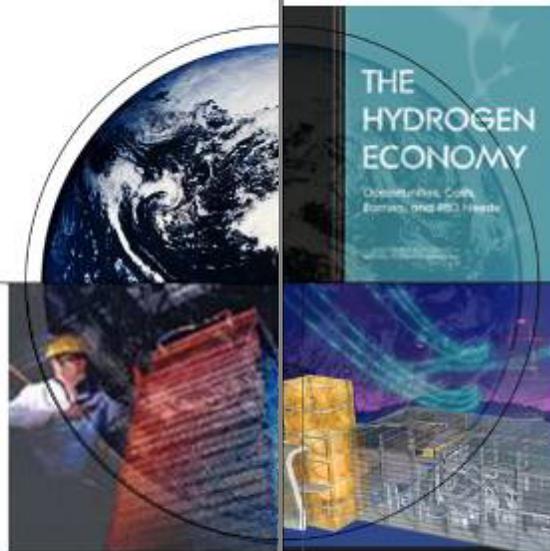


FutureGen: Navigating the EIS Process



C Sequestration Conference

Thomas A. Sarkus

FutureGen Project Director

May 8, 2007

National Energy Technology Laboratory

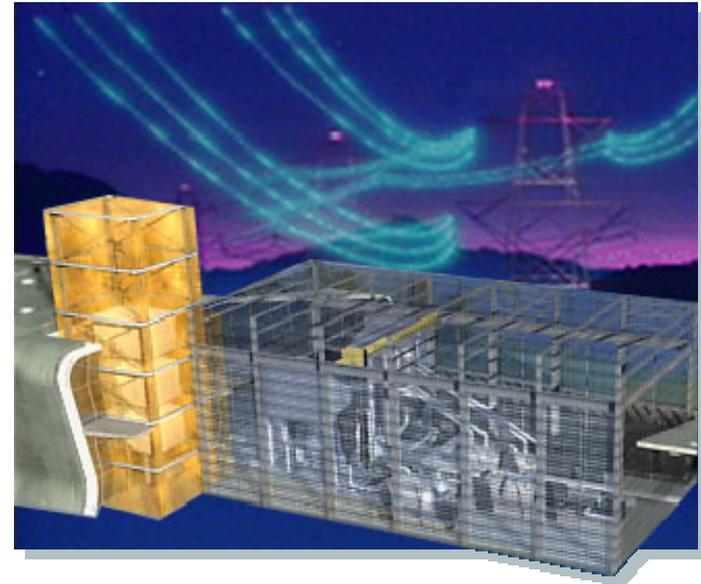


Office of Fossil Energy

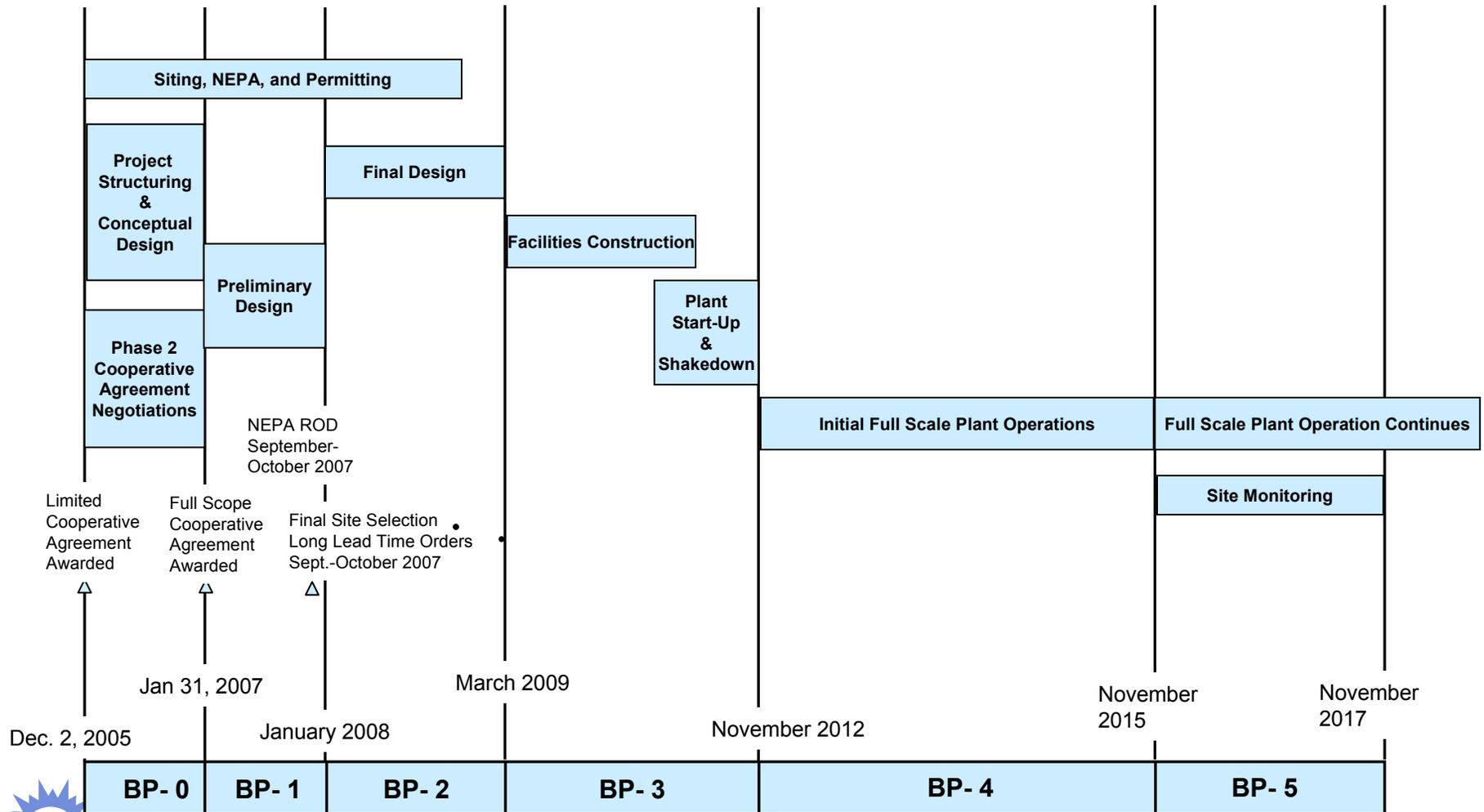


National Environmental Policy Act (NEPA)

- Enacted Jan. 1, 1970
- Declares “each generation...trustee of the environment for succeeding generations” & “that each person has a responsibility to contribute to the preservation and enhancement of the environment”
- For major Federal actions, requires “a detailed statement by the responsible official on the environmental impact of the proposed action”
- Three levels of documentation:
 - Categorical Exclusion (CX)
 - Environmental Assessment (EA)
 - Environmental Impact Statement (EIS)
- Cognizant oversight agency is the President’s Council on Environmental Quality (CEQ)



FutureGen: Project Schedule



FutureGen: NEPA & Site Selection Process Overview

Siting RFP → Down-select from 12 proposals to 4 candidate sites → DOE audited siting process & accepted 4 sites as reasonable alternatives → Environmental Information Volumes (EIVs) compiled by site proponents & Alliance → EIS → Record of Decision (ROD) → Host site selection → Detailed characterization of host site & preliminary site-specific design → Supplement Analysis → Possible Supplemental EIS & Supplemental ROD → Final design & construction



FutureGen: NEPA & Site Selection

- **Key Activity**

- DOE to prepare *FutureGen* Environmental Impact Statement
- FutureGen Alliance to make final site selection

- **Milestones**

- | | |
|-------------------|-------------------------------------------------------------------------------------------|
| – July 2006 | Publish Notice of Intent |
| – July-Sept. 2006 | Public Scoping Period (incl. scoping mtgs) |
| – May 2007 | Issue Draft EIS |
| – June-July 2007 | 45-Day Public Comment Period
(incl. public hearings near all 4 candidate sites) |
| – July 2007 | Issue Final EIS |
| – Sept.-Oct. 2007 | Record of Decision (completes NEPA) |
| – Sept.-Oct. 2007 | Alliance to Select Final Site
(to be followed by long-lead eqpt. purchases) |



FutureGen EIS, Vol. I

- **Purpose & Need for Agency Action**
- **Proposed Action & Alternatives**
- **Summary of Environmental Consequences**
 - Comparison of Impacts of Alternatives
 - Incomplete & Unavailable Information
 - Potential Cumulative Impacts
 - Unavoidable Adverse Impacts, Mitigation Measures, & Best Management Practices



FutureGen EIS, Vol. II

- **Air Quality**
- **Climate & Meteorology**
- **Geology**
- **Physiography & Soils**
- **Groundwater**
- **Surface Water**
- **Wetlands & Floodplains**
- **Biological Resources**
- **Land Use**
- **Aesthetics**
- **Transportation & Traffic**
- **Noise & Vibration**
- **Utility Systems**
- **Materials & Waste Mgmt.**
- **Human Health, Safety & Accidents** (incl. Terrorist Acts)
- **Cultural Impacts**
- **Community Services**
- **Socioeconomics**
- **Environmental Justice**



FutureGen Candidate Sites

Mattoon, Illinois

- pop. 18,291
- Bagel Capital of World
- Soybean Museum

Tuscola, Illinois

- pop. 6,285
- Amish community nearby
- Raggedy Ann Museum

Heart of Brazos, Texas

- Jewett, pop. 861
- Fairfield, pop. 3,094
- Dickey's Barbecue Pit

Odessa, Texas

- pop. 93,546
- Penwell ghost town
- Airpower Museum



Candidate Site Features

Conceptual Sequestration Design

Mattoon



- Injection on-site
- ~8,000 ft deep
- Mt. Simon sandstone formation

Tuscola



- Injection off-site (~10 miles)
- New pipeline to be constructed
- ~8,000 ft deep
- Mt. Simon sandstone formation

Brazos



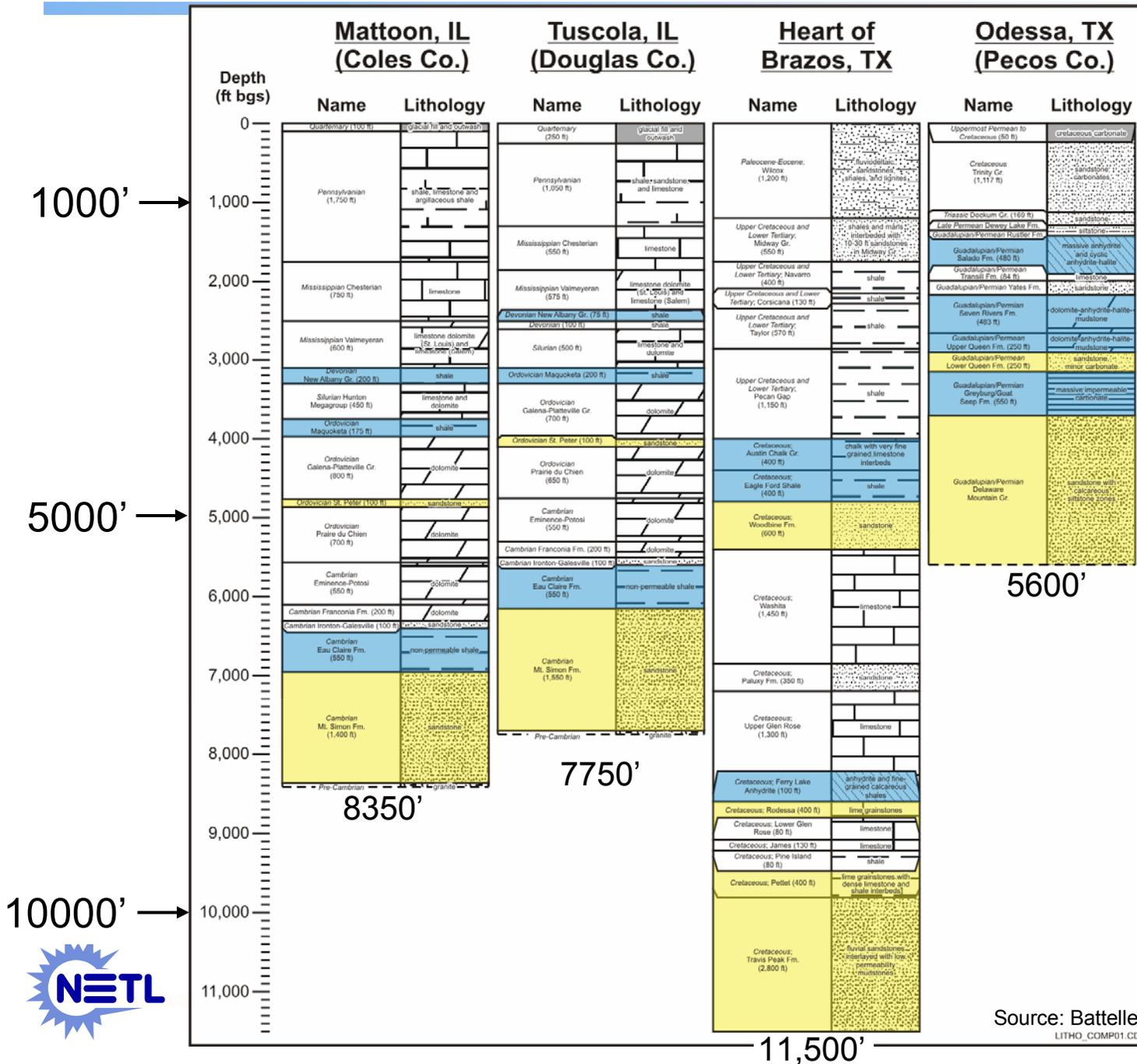
- Injection at two sites (~25 and 33 miles)
- New pipeline to be constructed
- ~6,000 ft deep in the Woodbine formation
- ~11,000 ft deep in the Travis Peak formation

Odessa



- Injection off-site (~56 miles)
- Potential to use existing pipeline with minor upgrades
- ~6,000 ft deep
- Guadeloupe Sands

Comparison of Sites by Depth



Seal

Injection



Questions/Discussion

