



Projects Recommended for CSLF Recognition

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From April 2013 Technical Group Meeting in Rome:

- Uthmaniyah CO₂-EOR Demonstration Project
- Alberta Carbon Trunk Line Project

From November 2013 Technical Group Meeting in Washington:

- Midwest Regional Carbon Sequestration Partnership Development Phase Project
- Kemper County Energy Facility
- South Regional Carbon Sequestration Partnership Phase III Anthropogenic Test and Plant Barry CCS Project

Uthmaniyah CO₂-EOR Demonstration Project



- Nominated by Saudi Arabia and United States
- Large scale project located in Eastern Province of Saudi Arabia
- Will capture and store approx. 800,000 tonnes of CO₂ per year from natural gas production and processing facility
- Includes pipeline transportation (70 km) to injection site in Uthmaniyah Field

Uthmaniyah CO₂-EOR Demonstration Project



Objectives:

- Determination of incremental oil recovery (beyond water flooding)
- Estimation of CO₂ sequestered
- Addressing risks and uncertainties (including migration of CO₂ within reservoir)
- Identifying operational concerns

Uthmaniyah CO₂-EOR Demonstration Project



Status:

- Construction of capture facility and pipeline underway (as of April 2013)
- Project duration expected to be 4-5 years total

Alberta Carbon Trunk Line Project



- Nominated by Canada and United States
- Large scale fully-integrated project located in Alberta Province of Canada
- Will collect CO₂ from two industrial sources (fertilizer plant and oil sands upgrading facility)
- Transport via 240 km pipeline to depleted hydrocarbon reservoirs in central Alberta

Alberta Carbon Trunk Line Project



Overall Objective:

- Stimulate EOR development in Alberta
- When in full operation, will be world's largest CCS project in terms of capacity

Status:

- Construction began in early 2013
- Commissioning expected in 2014
- Start of operation projected for 2015

Midwest Regional Carbon Sequestration Partnership Development Phase Project



- Nominated by United States and Canada
- Located in northern USA (Michigan and nearby states)
- Will inject 1 million tonnes of CO₂ over four-year span into oil and gas fields in various lifecycle stages, including carbon pinnacle reef complexes

Midwest Regional Carbon Sequestration Partnership Development Phase Project



Objectives:

- Assess storage capacities
- Validate static and numerical models
- Identify cost-effective monitoring techniques
- Develop system-wide information for further understanding of similar geologic formations

Midwest Regional Carbon Sequestration Partnership Development Phase Project



Status:

- Site characterizations and monitoring underway
- Long term injection and monitoring to begin in 2015
- Baseline geology reports in 2015
- Final topical report in 2019

SECARB Phase III Anthropogenic Test and Plant Barry CCS Project



- Nominated by United States, Japan and Canada
- Located in southwestern Alabama, USA
- Fully-integrated pulverized coal power plant CCS project
- 25 MW slipstream demonstration, with 12-mile pipeline transport to deep saline storage site

SECARB Phase III Anthropogenic Test and Plant Barry CCS Project



Objectives:

- Gain knowledge by operating integrated capture, transportation, injection, and monitoring project
- Test CO₂ flow, trapping, and storage mechanisms for a regionally-extensive Gulf Coast saline formation
- Test experimental CO₂ monitoring activities, where such technologies hold promise for future commercialization

SECARB Phase III Anthropogenic Test and Plant Barry CCS Project



Status:

- Construction of capture unit completed in June 2011
- Permitting completed in August 2012
- Injection milestone of 100,000 tonnes accomplished on October 29, 2013
- Post-injection monitoring to begin in 2014

Kemper County Energy Facility



- Nominated by United States and Canada
- Located in Mississippi, USA
- Large-scale IGCC utilizing Transport integrated Gasification technology utilizing low-cost lignite
- Will capture up to 3 million tonnes per year of CO₂ for use in EOR via 60-mile pipeline
- Expected to capture approx. 65% of CO₂ produced, yielding an expected 2 million barrels annually of domestically sourced oil

Kemper County Energy Facility



Objectives:

- Demonstrate at commercial scale new gasifier technology (Transport Integrated Gasification)
- Utilize nearby source of low-rank lignite coal, which accounts for more than half the world's coal reserves

Kemper County Energy Facility



Status:

- Construction largely complete
- Site visit scheduled for November 8!