

Needs Analysis for Carbon Sequestration

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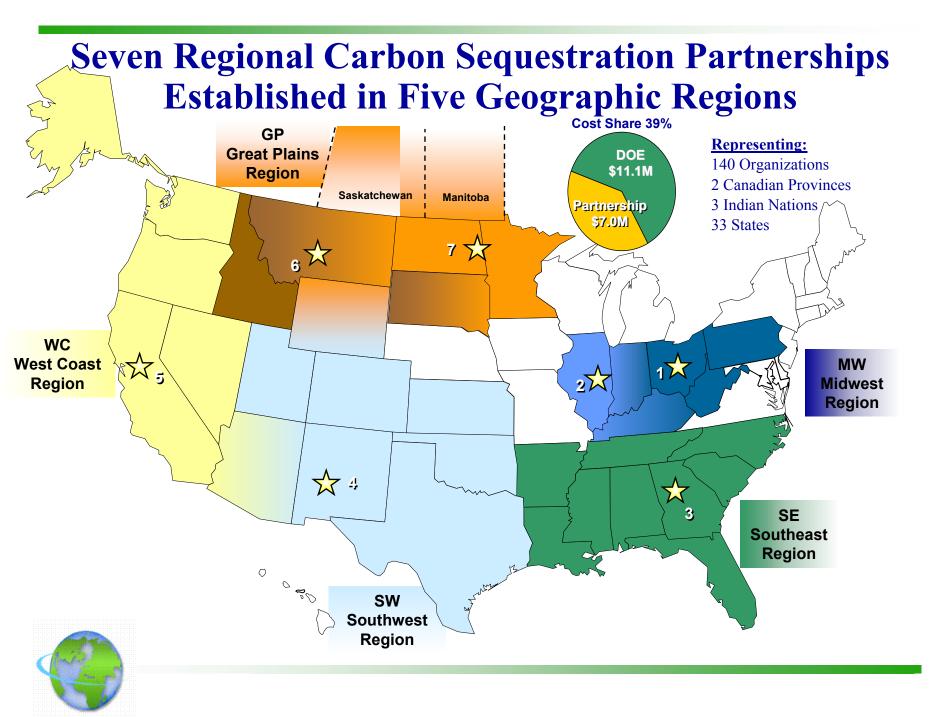


DOE/FE Carbon Sequestration Research Program Components

Core R&D

- Separation and Capture
- Sequestration (Direct + Indirect)
- Measurement, Monitoring & Verification
- Non-CO₂ GHG Control
- Breakthrough Concepts
- Infrastructure
 - Regional Partnerships
- Integration
 - FutureGen





Regional Partnerships Tasks

- Characterize the Region.
- Identify and Address Issues for Technology Deployment (e.g., legal, regulatory, financial).
- Develop Public Involvement and Education Mechanisms.
- Identify the Most Promising Capture, Sequestration and Transport Options.
- Prepare Action Plans for Implementation and Technology Validation Activity.



Two-Phased Approach

Phase I (Planning)

- -7 Projects
- 18-24 months
- -~\$1.5 million per project
- Overall ~ 40% cost share
- 2 exceed 50% cost share





Phase II (Proof-of-Concepts)

- 5-7 years
- \$5-\$7 million per year/project
- 30-35% cost share
- 4 to 5 Regions



Critical Synergy With Carbon Sequestration Program FutureGen Project Development Operation Geologic Permitting, Monitoring, **Deploy-**Sink Safety, Verification ment **Regulatory**, **Oppor-Protocols & Oppor-Outreach** tunities tunities Validation Phase 2 Phase 1 **Regional Carbon Sequestration Partnerships** 2002 2006 2008 2010 2004 CY