

Transcending Boundaries

# United States Energy Association Webinar on Carbon Capture, Utilization, and Storage

April 14, 2021

Kenneth J. Nemeth, Secretary and Executive Director

Southern States Energy Board

## John Kerry – Institute of International Finance's 2021 Washington Policy Summit

"The solution is going to come from the private sector, and what government needs to do is create the framework within which the private sector can do what it does best, which is allocate capital and innovate and begin to take the framework that's been created.

...We need to go after this as if we're really at war."

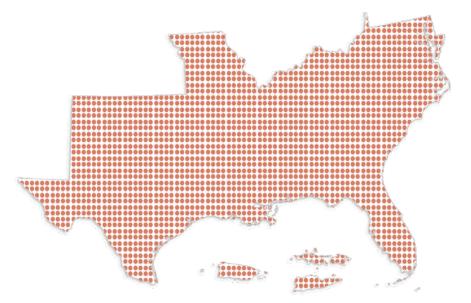


© Getty Source: The Hill, <u>https://thehill.com/policy/energy-</u> environment/545125-kerry-no-government-is-going-tosolve-climate-change





"Through innovations in energy and environmental policies, programs and technologies, the Southern States Energy Board enhances economic development and the quality of life in the South." ~ SSEB Mission Statement



- Interstate Compact Organization, created by state law and consented to by Congress (PL 87-563, PL 92-440)
- 16 U.S. States and Two Territories
- Each jurisdiction represented by the governor, a legislator from the House and Senate, and a governor's alternate
- Federal Representative appointed by U.S. President
- Secretary, who serves as Executive Director

#### 2020-2021 Executive Committee







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**Secretary** Kenneth Nemeth

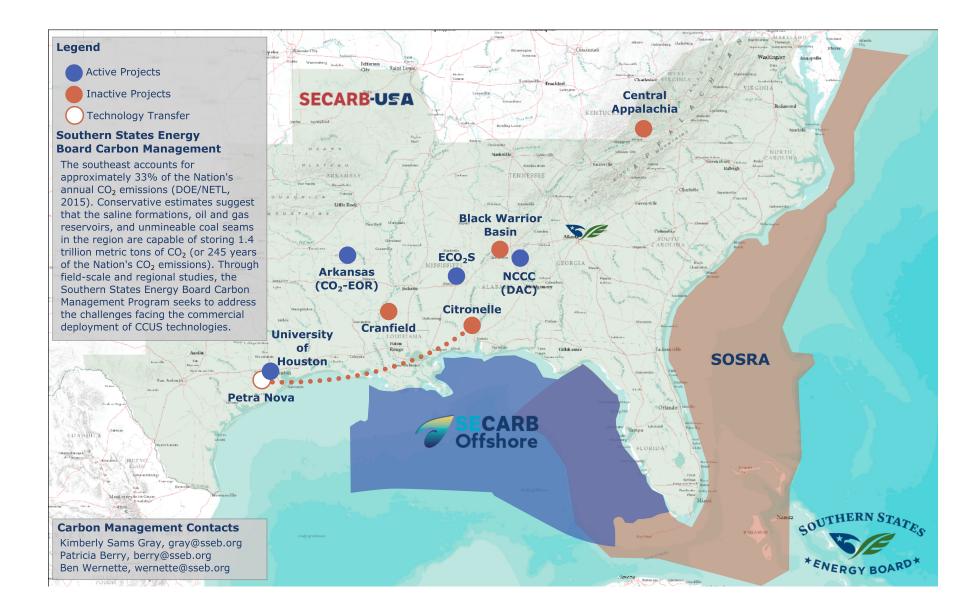




# **Carbon Management Program**

SSEB Programs and Activities - Schedule and Funding	Start Date	End Date	2003	2004	2005	2007	2008	2009	2010	2011	2013	2014	2015	2016	2018	2019	2020	2021	2022	2023	2025	2026	2028 2028 2029
SSEB LEADS:																							
Southeast Regional Carbon Sequestration Partnership (SECARB)	10/1/03	6/30/21																					
Phase I: Characterization	10/1/03	9/30/05			Г		Γ																
Phase II: Validation	10/1/05	6/30/11																					
Phase III: Development	10/1/07	6/30/21																					
Phase III Partner Contributions Outside DOE/NETL Agreement																							
SECARB Utilization and Storage Acceleration (SECARB USA)	10/1/19	9/30/24																					
Committee on Carbon Management	7/8/10	3/31/21																					
Committee on Carbon Management, including CCUS Commercialization Consortia	10/1/20	9/30/25																					
Southeast Offshore Storage Resource Assessment (SOSRA)	10/1/15	9/30/19																					
Project ECO <sub>2</sub> S (A CO <sub>2</sub> Storage Assessment in Mississippi) (CarbonSAFE) Phase II	3/1/17	9/30/20																					
Project ECO <sub>2</sub> S (A CO <sub>2</sub> Storage Assessment in Mississippi) (CarbonSAFE) Phase III	9/1/20	8/31/23													Τ								
SECARB Offshore: Gulf of Mexico	4/1/18	3/31/23																					
Direct Air Capture Recovery of Energy for CCUS Partnership (DAC RECO2UP)	10/1/20	1/31/24																					
Arkansas CCUS Opportunity Assessment	4/1/19	6/30/19										$\square$					Pr	oje	ct tr	ansf	errec	l to S	SECARB
	-, 1, 15	5/ 50/ 15											Ļ						0		ase II	-	<u> </u>
				Active				Proposed								Clos	sed/	Comp	olete	d			





#### State Laws/Incentives (Selected)

#### **Reducing uncertainty/risk/costs**

- Pore space and CO<sub>2</sub> ownership: IL, LA, MS, MT, ND, OK, TX, WV, and WY
- Long-term liability: IL, KS, KY, LA, MS, MT, TX, WV, and WY
- Tax incentives: AL, FL, LA, MS, OK, TX, and VA (e.g., severance tax, ad valorem, sales tax, franchise tax), plus a few outside the SSEB region
- Eminent domain: AL, KY, LA, MS, and TN
- CCUS and enhanced oil recovery laws are in place in a number of states that specify state organizational jurisdiction over CO<sub>2</sub> injection wells, pipeline transport of CO<sub>2</sub>, and similar issues (ID, IL, LA, MI, MT, and TX)



## **State Legislation: First Movers in Southeast**

**Texas** – The Advanced Clean Energy Project Grant and Loan Program (2007) and additional laws promoting CCS and EOR (2009)

- Sales tax exemption: equipment purchases for projects that capture at least 50% of their CO<sub>2</sub> emissions
- Franchise tax credit: \$100 million per-project to the first three projects that can achieve a 70% carbon capture rate qualification
- Severance tax exemption: 75%, 30-year exemption for oil recovered using CO<sub>2</sub> captured from anthropogenic, or manmade, emission sources
- Offshore carbon repository program: creates a network of CO<sub>2</sub> pipelines throughout Texas
- Grant program: new emissions-reducing technologies, including clean coal technologies and CCS projects (2009 Appropriations Act)
- Regulatory framework: authorizes Railroad Commission jurisdiction over the injection of CO<sub>2</sub> into wells for oil and gas production



# **State Legislation: First Movers in Southeast**

Louisiana Geologic Sequestration of Carbon Dioxide Act (2009)

- Liability: releases storage operators from any and all liability associated with or related to that storage facility which arises after the issuance of the certificate of completion of injection operations
- Caps on civil liability cases: non-economic damages may not exceed \$1 million
- Eminent domain rights: any carbon storage operator who obtains a state permit or certificate of public convenience and necessity
- Severance tax incentives: oil and gas recovered through EOR

Mississippi Geologic Sequestration of Carbon Dioxide Act (2011)

- Regulatory framework: pore space and CO<sub>2</sub> ownership
- Liability: liability for the owners of the CO<sub>2</sub>
- Severance tax incentives: oil and gas recovered through EOR
- Ad valorem tax exemptions: equipment used for EOR

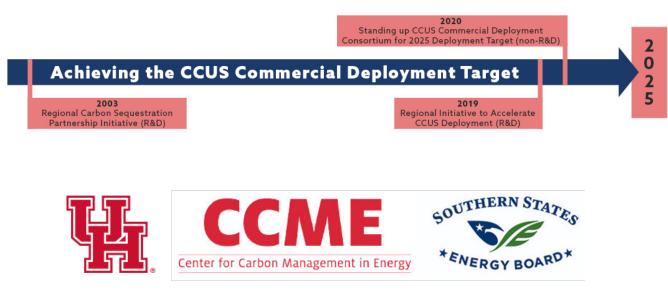






## **CCUS Commercialization Accelerator Consortium**

Public-private consortium of experts established to promote the rapid and transformative deployment of CCUS technologies



Advanced Resources International, Inc. **Baker Hughes** Battelle Battelle **BP** America Inc. Chevron Denbury, Inc. Dow Enbridge Energy & Environmental Research Center, University of North Dakota Enhanced Oil Recovery Institute - University of Wyoming **Environmental Defense Fund** Exxon Mobil **Gaffney Cline and Associates** Hunton Andrews Kurth LLP Jackson Walker, LLP Kiewit **McKinsey & Company** Melzer Consulting Minnkota NRG Energy, Inc. **Occidential Petroleum** Phillips 66 **Proven Project Development Group** Shell Southern Company Services The University of Texas at Austin, Bureau of Economic Geology **U.S. Department of Energy United States Energy Association** University of Illinois, Illinois State Geological Survey Wood PLC WSP



#### **Carbon Management Policies and Technologies**

"Provide a regional effort that fosters and sustains an innovative environment for the development of coal policies and technologies."

- Foster and facilitate communication, education and outreach between DOE, governors and legislative leaders within the SSEB region, state agencies, utilities, regulatory bodies, the private sector and nonprofit organizations.
- Support global outreach to promote the adoption of U.S. technologies internationally and provide greater opportunities for U.S. companies in a globally challenging environment.
- Brief state policy-makers and regulators on the historical and current technical aspects of clean energy demonstration programs to gain support and regulatory approval for future commercial deployment and on establishing <u>a public-private consortium of experts to promote the rapid and transformative</u> deployment of CCUS technologies.





# **CCUS Commercialization Accelerator Consortium**

- Public-private consortium of experts established to promote the rapid and transformative deployment of CCUS technologies
  - Establish a Leadership Committee and Public-Private CCUS Commercial Deployment Consortium
  - Develop a CCUS Commercial Deployment Consortium Roadmap
  - Provide CCUS Facility Design Support to Industry
  - Maintain robust Stakeholder Engagement and Workforce
  - Solicit and assemble ongoing feedback from participants on obstacles to CCUS deployment





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