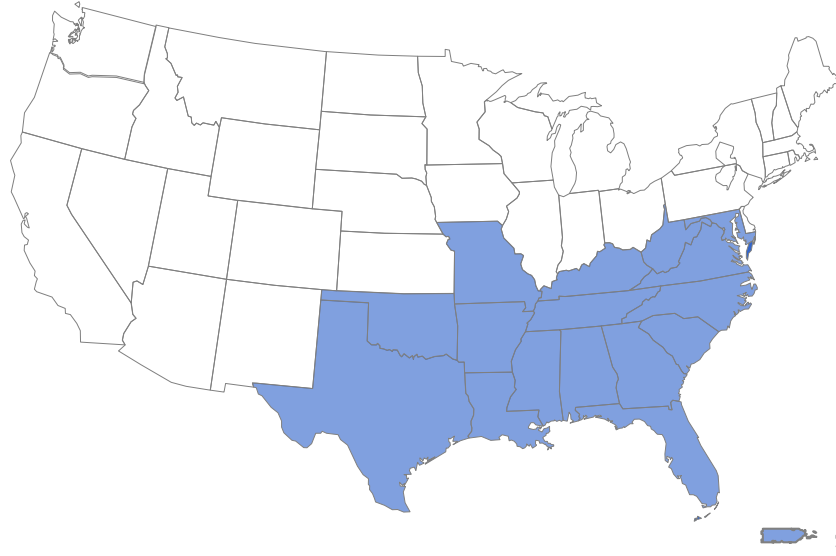




# Recent Activities & 2019-2020 Elections Insights

Presentation by Kimberly Gray, Managing Director  
Washington, DC | February 7, 2020

*“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



**Chair**  
Gov. Kevin Stitt  
Oklahoma



**Vice Chair**  
Rep. Lynn Smith  
Georgia



**Treasurer**  
Rep. Bill Sandifer  
South Carolina



Gov. Asa Hutchinson  
Arkansas



Rep. John Ragan  
Tennessee



Rep. Rocky Miller  
Missouri



Sen. Brandon Smith  
Kentucky



Sen. Ken Yager  
Tennessee



**SLC E&E Chair**  
Sen. Ed Emery  
Missouri



**Federal Representative**  
Honorable Eddie Joe  
Williams

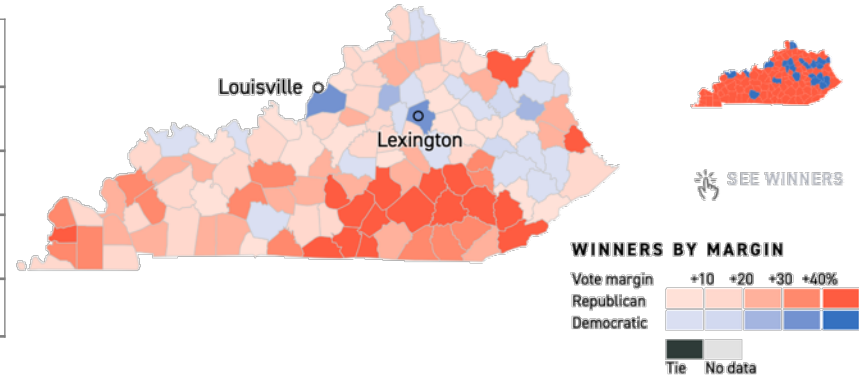


**Secretary**  
Ken Nemeth

# Election Day in KENTUCKY



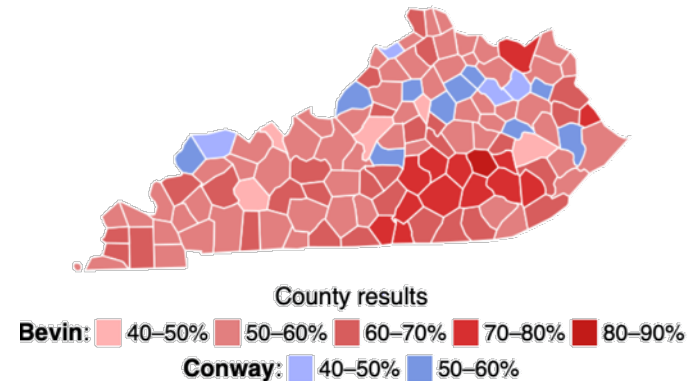
Winner	Percent	Candidate	Party	Votes
✓	49.2%	Andy Beshear	Dem	709,673
	48.8%	Matt Bevin*	GOP	704,523
	2%	John Hicks	Libt	28,426
*Incumbent		1,442,622 total votes		



## 2015 ELECTION RESULTS & MAP FOR COMPARISON

*Note: color keys are different*

- Gov. Bevin won the popular vote (opponent Jack Conway)
- 52.52% to 43.82%
- 937,994 total votes

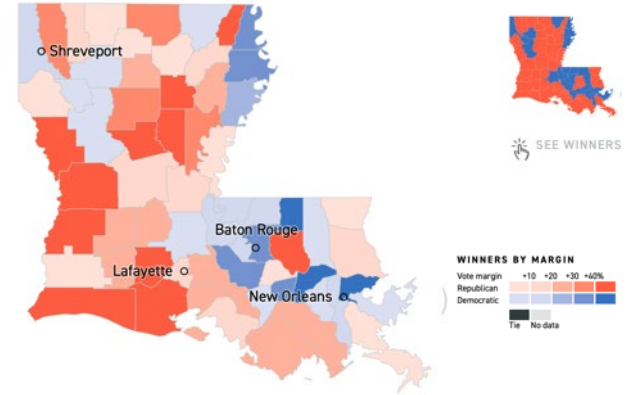


# Election Day in LOUISIANA



## RUNOFF: NOVEMBER 16 (GENERAL ELECTION)

Winner	Percent	Candidate	Party	Votes
✓	51.3%	John Bel Edwards*	Dem	626,000
	48.7%	Eddie Rispone	GOP	368,318
		*Incumbent	1,508,597 total votes	



## 2015 ELECTION RESULTS & MAP FOR COMPARISON

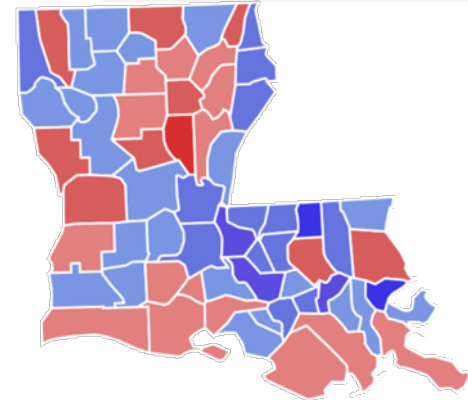
Note: color keys are different

- Gov. Edwards won the election (opponent David Vitter)
- 56.1% to 43.9%
- 1,152,789 total votes

Parish results

Edwards: 50-60% 60-70% 70-80% 80-90%

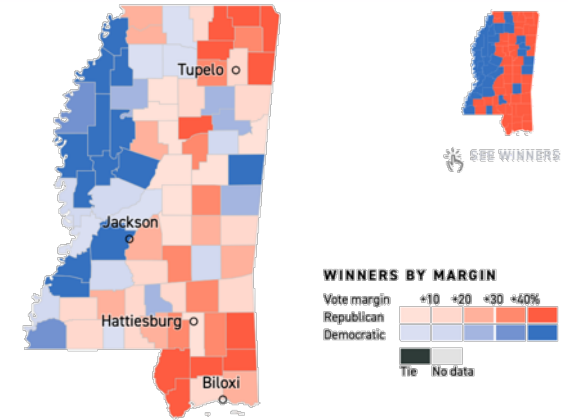
Vitter: 50-60% 60-70% 70-80%



# Election Day in MISSISSIPPI



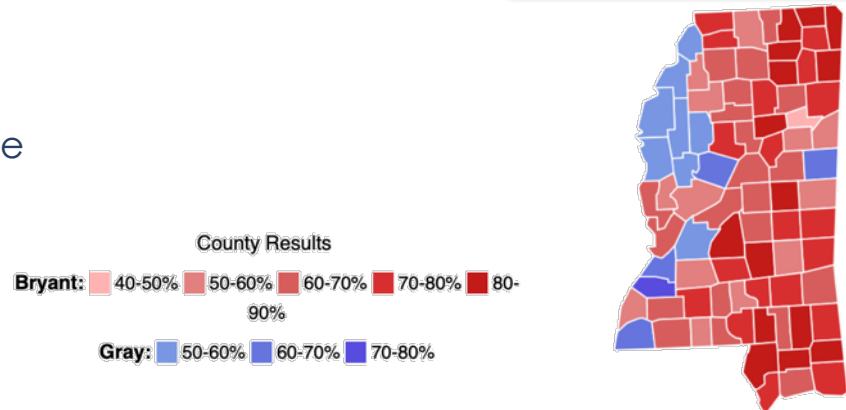
Winner	Percent	Candidate	Party	Votes
✓	52.2%	Tate Reeves	GOP	449,252
	46.5%	Jim Hood	Dem	400,336
	1%	David Singletary	Ind	8,237
	0.3%	Bob Hickingbottom	Const	2,526
				860,351 total votes



## 2015 ELECTION RESULTS & MAP FOR COMPARISON

*Note: color keys are different*

- Gov. Bryant (term limited in 2019) won the popular vote (opponent Robert Gray)
- 66.38% to 32.25%
- 708,340 total votes



# Election Day in VIRGINIA



## VIRGINIA HOUSE OF DELEGATES

Party	Before November 5, 2019	After November 5, 2019
Democratic	48	54
Republican	51	45
Vacancies	1	0

## VIRGINIA STATE SENATE

Party	Before November 5, 2019	After November 5, 2019
Democratic	19	21
Republican	20	19
Vacancies	1	0



A glowing crystal ball is held by two hands, with the year 2020 displayed inside. The crystal ball is illuminated with a bright blue light, and the hands are positioned around it, suggesting a magical or prophetic act. The background is dark, making the glowing ball stand out.

**2020**

# 2020 Elections – SSEB Member Governors



## Missouri



Gov. Michael Parson

## North Carolina



Gov. Roy Cooper

## Puerto Rico



Gov. Wanda Vázquez  
Garced

## West Virginia



Gov. Jim Justice

# 2020 Election Impact



	AL	AR	FL	GA	KY	LA	MD	MS	MO	NC	OK	PR	SC	TN	TX	VI	VA	WV
<b>Governor</b>																		
<b>Gov.'s Alt 1</b>			Ag		2020			2020										
<b>Gov.'s Alt 2</b>																		
<b>Sen. 1</b>	2022	2021	2022	2021	2023	2020	2023	2020	2021		2022	2021	2020	2020	2021		2024	2020
<b>Sen. 2</b>	2022*	2023	2020				2023		2023		2020		2020				2024	2022
<b>Sen. 3</b>																	2024	
<b>Rep. 1</b>	2022	**	2020	2021	2021	2020	2023	2024	2021	2020	2020	2021	2020	2020	2021		2022	
<b>Rep. 2</b>	2022		2020	2021		2024			2021	2020	2020						2022	
<b>Rep. 3</b>																	2022	

- Current
- Potential Change (re-election bid, appointing authority change, seeking other office, etc.)
- Vacant or Becoming Vacant Soon (term limited, not seeking re-election)

## Special Projects

Annual Governors Energy Caucus

State Energy Days

Board Resolutions

Energy and Environment Legislative Digest

Annual Energy Briefing to Southern Legislative Leaders

Regional Emergency Motor Fuel Waiver

Strategizing an Electric Policy and Regulatory Framework in Puerto Rico

## Long-Term Policy and Technical Programs

Carbon Management

Transuranic Waste Transportation

Radioactive Materials Transportation Committee

Committee on Clean Coal Energy Policies and Technologies

Southern Emergency Response Council

Foreign Research Reactor Spent Nuclear Fuel Transportation

# SSEB's Focus for "All-of-the-Above" Energy Portfolio



- Cybersecurity
- Hardening critical energy infrastructure
- Modernization and enhancement of the electric grid
- Advanced and emerging technologies
  - Energy storage
  - Electric vehicles
  - CO<sub>2</sub> capture, utilization, and storage (CCUS)
  - Water-energy nexus
- Workforce development and training
- Education and outreach

**CLEAN**  
**EFFICIENT**  
**RELIABLE**  
**RESILIENT**  
**SECURE**  
**SUSTAINABLE**  
**AFFORDABLE**

# 45 State Agencies, Colleges, and Universities Funded by SSEB



# 45 State Agencies, Colleges, and Universities Funded by SSEB (continued)



## Special Projects

Annual Governors Energy Caucus

2020 TBD

State Energy Days

Alabama in April

Board Resolutions

Schedule Dependent – Annual Mtg

Energy and Environment Legislative Digest

In Progress – Draft in July, Final in Sept

Annual Energy Briefing to Southern Legislative Leaders

July 31-Aug 1 in Winston Salem, NC

Regional Emergency Motor Fuels Waiver

Council – Work in Progress

Strategizing an Electric Policy and Regulatory Framework in Puerto Rico

Project Closed – June 30, 2019

## Long-Term Policy and Technical Programs

Carbon Management

Several Changes – see next slides

Committee on Clean Coal Energy Policies and Technologies

May 18-19, Kingsport, TN; State Outreach; Energy Profiles

Transuranic Waste Transportation

\$2MM in State Subgrants – Next Agreement Preparations Underway

Radioactive Materials Transportation Committee

Emergency Responders Training, Equip., etc.

Southern Emergency Response Council

Mutual Aid Agreement – Radiological Incidents - Drills, drills, drills

Foreign Research Reactor Spent Nuclear Fuel Transportation

U.S. accepts SNF from research reactors in 31 countries



- State outreach to legislative leaders
- Support states in research and/or development of legislation
- Assistance to Southeastern Association of Regulatory Utility Commissioners (SEARUC)
- State primacy for UIC Class VI Permits Working Group (Groundwater Protection Council)
- Establishment of Regional Emergency Motor Fuels Waiver Council

# SSEB's Carbon Management Program (Sept 2019 v Feb 2020)



SSEB Carbon Management Project Portfolio - Schedule	Start Date	End Date	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>SSEB LEADS:</b>																										
<b>Southeast Regional Carbon Sequestration Partnership (SECARB)</b>																										
Phase I: Characterization	10/1/03	9/30/05																								
Phase II: Validation	10/1/05	6/30/11																								
Phase III: Development	10/1/07	6/30/20																								
<b>Southeast Regional CO<sub>2</sub> Sequestration Technology Training Program (SECARB-Ed)</b>																										
11/16/09	3/31/20																									
<b>Southeast Offshore Storage Resource Assessment (SOSRA)</b>																										
10/1/15	9/30/19																									
<b>Industrial CCS/CCUS (ICCS) Working Group (Gulf of Mexico)</b>																										
8/1/16	6/30/18																									
<b>Project ECO<sub>2</sub>S (A CO<sub>2</sub> Storage Assessment in Mississippi) (CarbonSAFE)</b>																										
3/1/17	2/28/20																									
<b>SECARB Offshore: Gulf of Mexico</b>																										
4/1/18	3/31/23																									
<b>Arkansas CCUS Opportunity Assessment</b>																										
4/1/19	6/30/19																									
<b>SECARB Utilization and Storage Acceleration (SECARB USA)</b>																										
10/1/19	9/30/24																									
<b>SSEB SUPPORTS</b>																										
<b>Central Appalachian Basin Unconventional (Coal/Organic Shale) Reservoir Small-Scale CO<sub>2</sub> Injection Test (Lead: VA TECH/VCCER)</b>																										
10/1/11	12/31/17																									
<b>Offshore Storage Resource Assessment - Texas (Lead: UTEXAS/BEG)</b>																										
10/1/15	1/30/19																									
<b>Industrial CCS/CCUS (ICCS) Working Group (Appalachia) (Lead: USEA)</b>																										
7/1/18	6/30/19																									
<b>Proposed: CONSENSUS - CO<sub>2</sub> Capture, Utilization &amp; Storage (Lead: USEA)</b>																										
10/1/19	9/30/24																									

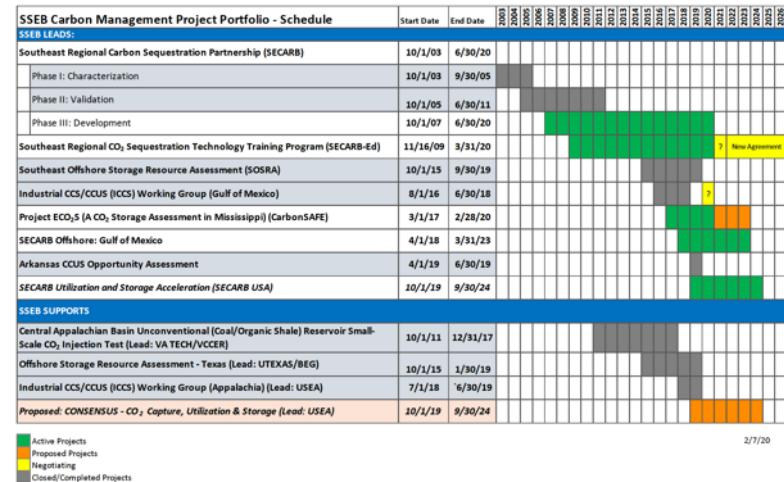
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7/1/18	6/30/19																									
<b>Proposed: CONSENSUS - CO<sub>2</sub> Capture, Utilization &amp; Storage (Lead: USEA)</b>																										
10/1/19	9/30/24																									

- Active Projects
- Proposed Projects
- Negotiating
- Closed/Completed Projects

# SSEB's Carbon Management Program



- Southeast Regional Carbon Sequestration Partnership (SECARB) Phase III
  - AR CCUS Study
  - Assisting MD with Clean and Renewable Energy Strategy (CCUS roadmap)
  - Ends 6/30/20...unless we are able to extend the project
- Southeast Regional CO<sub>2</sub> Utilization and Storage Acceleration Partnership (essentially SECARB for Phase IV)
  - Conditionally awarded for a start date of 10/1/2019
  - Fully awarded on 2/4/2020
- Southeast Offshore Storage Resources Assessment
  - Ended 9/30/2019, finalizing a few closeout details
- SECARB Partnership: Offshore GOM
  - March 25-27 meeting in New Orleans
- CarbonSAFE: Project ECO<sub>2</sub>S Phase II
  - Extension requested through 9/30/2020
- CarbonSAFE: Project ECO<sub>2</sub>S Phase III
  - Proposal Submitted 1/15/2020

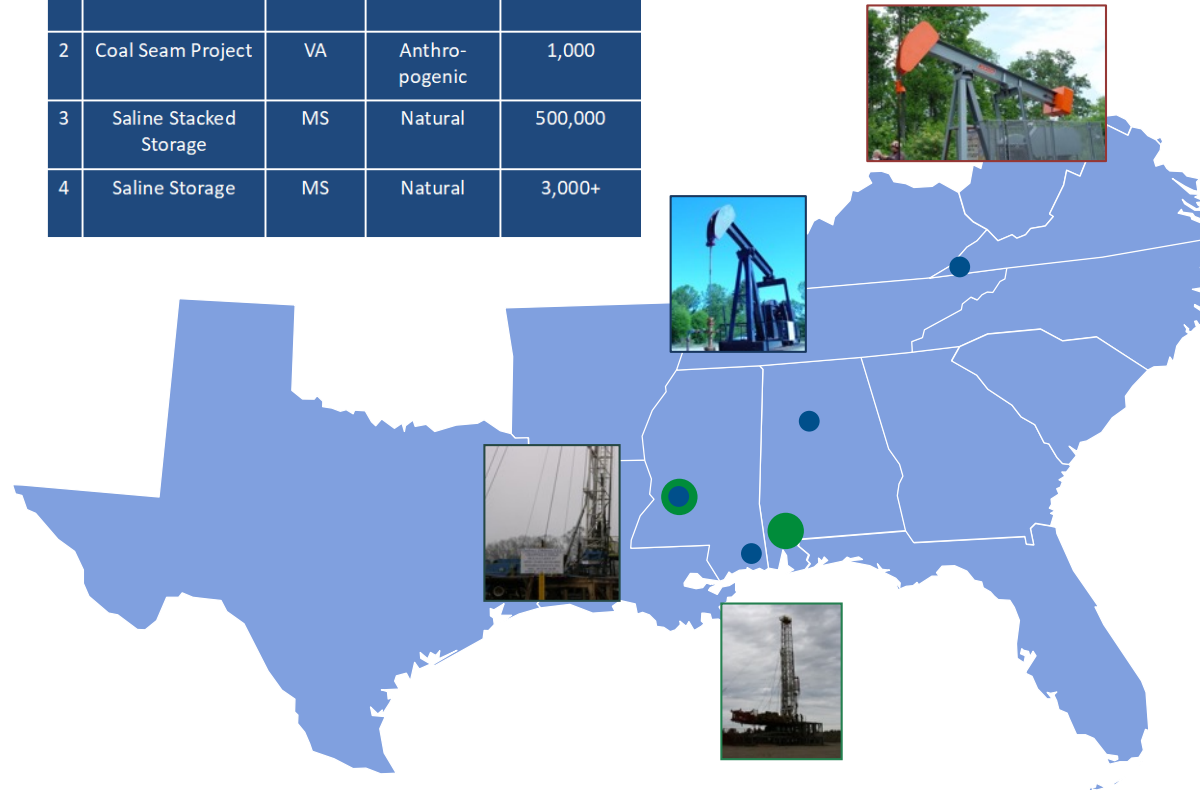


# Southeast Regional Carbon Sequestration Partnership (SECARB)



#	Name/Description	Location	CO <sub>2</sub> Source	CO <sub>2</sub> Stored (metric tons)
1	Coal Seam Project	AL	Natural	1,000
2	Coal Seam Project	VA	Anthropogenic	1,000
3	Saline Stacked Storage	MS	Natural	500,000
4	Saline Storage	MS	Natural	3,000+

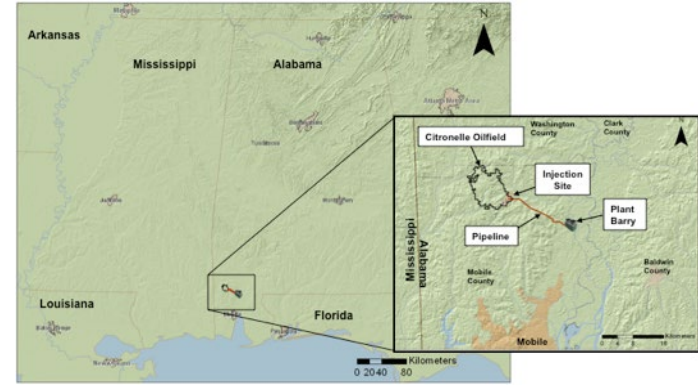
#	Name/Description	Location	CO <sub>2</sub> Source	CO <sub>2</sub> Stored (metric tons)
5	CO <sub>2</sub> -EOR	MS	Natural	5,000,000+ (10MM injected)
6	Saline Storage	AL	Anthropogenic (from new CO <sub>2</sub> capture facility)	100,000+



# SECARB CO<sub>2</sub> Capture, Utilization & Storage Demo



- SSEB's SECARB Demo at Alabama Power's Plant Barry (Bucks, AL)
- 25 MWe post-combustion slip-stream carbon capture
  - Scaled up to 240MW at Petra Nova (TX)
- 12-mile pipeline to Citronelle, AL, for storage



Power Plant



Capture



Transport



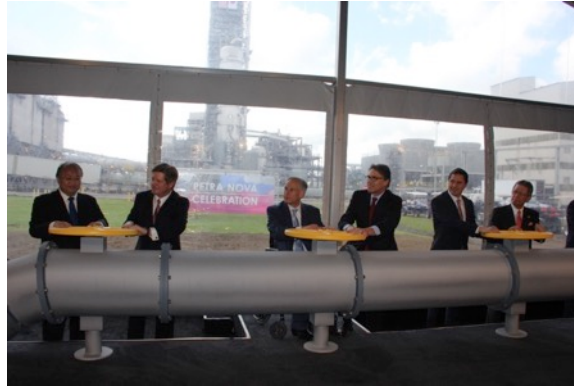
Storage

# Petra Nova - Emergence of CCUS in South



## SECARB Demo Goes Commercial!

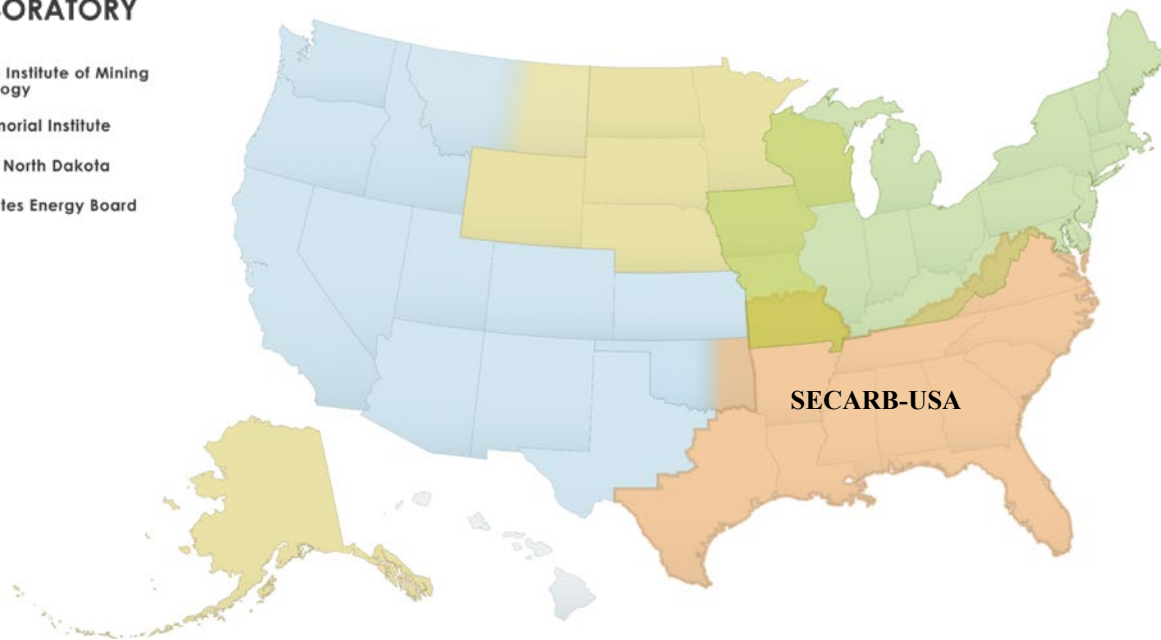
- NRG Energy (Houston, TX)
- Interest in Plant Barry Demonstration
- Plant scale-up to 240 MW
- Post-combustion slip-stream
- Captures 5,200 tons CO<sub>2</sub>/day or 90% of CO<sub>2</sub>
- Pipeline to Petra Nova West Ranch Oil Field (81 miles)
- EOR 300 bbls/day to 15,000 bbls/day (peak)!
- 60 million bbls Recoverable Reserves



# Regional Initiative to Accelerate CCUS Deployment



-  New Mexico Institute of Mining and Technology
-  Battelle Memorial Institute
-  University of North Dakota
-  Southern States Energy Board



## Acceleration

- 5 years (2019-2024)
- 4 Partnerships
- \$20M DOE and cost share

## Scope of Work

- Address key technical challenges
- Facilitate data collection, sharing, and analysis
- Assess transportation and distribution infrastructure
- Promote regional technology transfer and dissemination



## By the Numbers

- 5-year project, 10/1/19-9/30/24
- Federal \$5,000,000, Non-Federal \$1,335,136 (21%)
- Builds on the experience of SECARB and other DOE-FE/NETL-funded projects in the Southeast



U.S. DEPARTMENT OF  
**ENERGY**



NATIONAL  
ENERGY  
TECHNOLOGY  
LABORATORY



Los Alamos  
NATIONAL LABORATORY  
EST. 1943



BUREAU OF  
ECONOMIC  
GEOLOGY



# Existing Public-Private Partnership



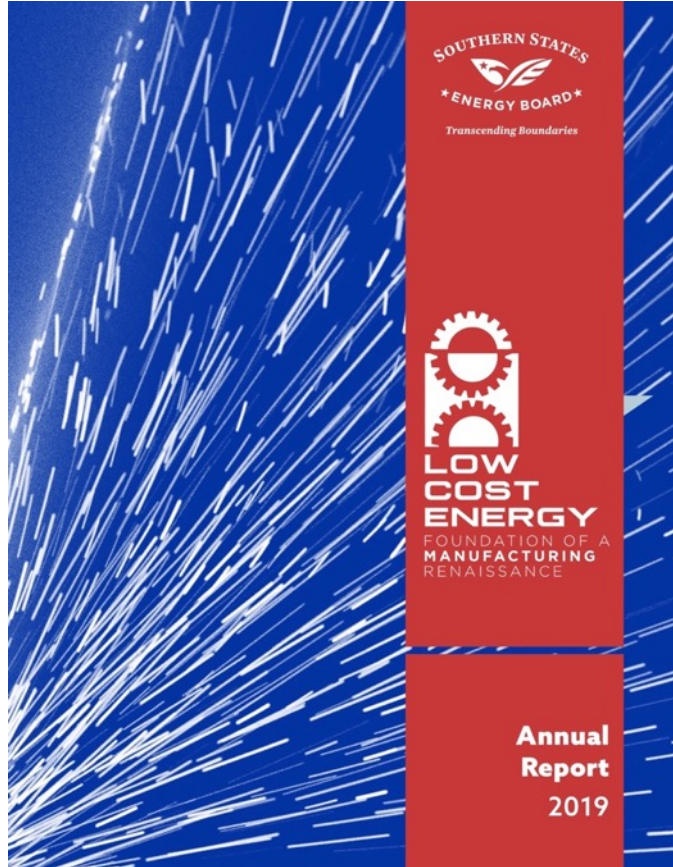
# Existing Public-Private Partnership





# Radioactive Materials Transportation Committee





- Annual Reports released at SSEB's Annual Meeting
- “Low Cost Energy: Foundation of a Manufacturing Renaissance” in 2019
- Report of SSEB's Programs, Activities, Achievements, Members



Upcoming  
Events

DATES*	EVENT DESCRIPTION (SSEB hosted/sponsored events are in bold)	LOCATION
<b>2020</b>		
<b>March 25-27, 2020</b>	<b>Southeast Regional Carbon Storage Partnership: Offshore Gulf of Mexico, Joint Meeting with GoMCarb</b> <a href="http://www.sseb.org/news-and-events/">http://www.sseb.org/news-and-events/</a>	<b>New Orleans, LA</b>
<b>April 2020</b> <i>(tentatively 14-15)</i>	<b>Alabama Energy Day</b>	<b>Montgomery, Alabama</b>
<b>May 18-19, 2020</b>	<b>SSEB Committee on Clean Coal Energy Policies and Technologies (held in conjunction with the Virginia Coal and Energy Alliance's Annual Meeting)</b> <a href="https://www.sseb.org/news-and-events/">https://www.sseb.org/news-and-events/</a>	<b>Kingsport, Tennessee</b>
<b>July 31-August 1, 2020</b>	<b>SSEB Annual Energy Briefing to Southern Legislative Leaders, Members Dinner on 7/31 and Briefing on 8/1</b> <a href="https://www.sseb.org/news-and-events/">https://www.sseb.org/news-and-events/</a>	<b>Winston-Salem, North Carolina</b>
<b>Fall 2020</b>	<b>SSEB 60<sup>th</sup> Annual Meeting, Hosted by Oklahoma Governor J. Kevin Stitt</b>	<b>Oklahoma</b>

<https://www.sseb.org/news-and-events/>



- **Invoices** sent mid-January for CY2020
- **Board Resolutions Schedule** to be released as soon as the SSEB Annual Meeting dates are confirmed
- Review **events** calendar!
  - **Attendance & Sponsorship**
  - **Speaker recommendations**
- **State Energy Days**
  - Education/outreach components to all of our projects
- Energy & Environment **Legislative Digest**
- **Suggestions for improvement?**



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at [sseb@sseb.org](mailto:sseb@sseb.org)



*Transcending Boundaries*



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