



Carbon Management and Community Impacts in the Gulf Region

Lamar University, Beaumont, Texas | April 14, 2025

Workshop Overview

The workshop addressed the rapid expansion of Carbon Capture, Utilization, and Storage (CCUS) projects in the Gulf region, driven by federal and state subsidies. This expansion has significant potential for reducing U.S. emissions, but raises concerns about the impact on fenceline communities, which have historically borne a disproportionate burden of industrial pollution. The workshop aimed to convene diverse stakeholders—community groups, public and private sector representatives, and academics—to discuss these implications and develop research and policy priorities. The workshop emphasized several key principles for discussion: open communication, fostering trust among participants, encouraging the exploration of diverse perspectives, a commitment to constructive dialogue, and upholding mutual respect for all attendees' expertise and experience.

- **Houston CCS Alliance and ExxonMobil Low Carbon Solutions:** Key themes included identifying and responding to community priorities and concerns, proactive stakeholder engagement, promoting the benefits of low-carbon technologies, highlighting company expertise, and designing strategic community investment programs.
- **Panel 1: Community Voice and Social License:** This panel focused on how regulators and commercial operators can enhance social license around CCUS deployment and how to incorporate community perspectives into an equitable approach. Key themes included:
    - The necessity of ongoing engagement to build stronger, more resilient communities. Engagement should be a two-way, iterative process with regular check-ins, updates, and feedback loops to demonstrate respect for community input and encourage sustained involvement and trust.

- The importance of clear and consistent communication, with materials free of jargon and available in multiple languages. Materials and messaging should be culturally relevant and resonate with community values and concerns.
- The value of digital tools in expanding engagement opportunities, especially for those unable to attend in-person events. Virtual town halls, online surveys, interactive mapping tools, and social media platforms can facilitate dialogue and feedback.
- Strategies for defining the purpose of engagement efforts and articulating goals in an easily understandable manner, setting expectations, and clarifying the roles of community members.
- The fundamental role of trust in successful engagement, requiring consistency, transparency, and responsiveness. This involves active listening, honoring commitments, and recognizing and acknowledging community knowledge and expertise.
- Methods for removing barriers to participation and meeting people where they work, live, and play, such as creating accessible meeting formats, addressing language differences, and providing support for childcare or transportation needs.

- **Panel 2: Jobs, Community Benefits, and Economic Security:** Discussions centered on the economic impacts of CCUS deployment on communities and how they can prepare for the future, including through workforce development.
  - Explored the potential for CCUS projects to generate substantial investment, create numerous permanent jobs with strong wages, and increase state and local tax revenues, contributing to long-term growth and resilience for Southeast Texas communities and continued energy independence. The study examined the potential economic outcomes of CCUS projects across 12 counties in South and Southeast Texas, projecting billions of dollars in investment. These projects could also increase state and local tax revenues.
  - Illustration of the direct, indirect, and induced economic impacts of CCUS projects. Direct impacts include jobs and spending from the CCUS project itself. Indirect impacts include increases to sales, incomes, and jobs in business sectors that support or supply the project. Induced impacts are the household spending patterns of employees in all business sectors that experience increased earnings as a result of the project.

- A third panelist discussed corporate approaches to community benefits and economic impacts associated with their portfolio of projects.

- **Panel 3: Health and Community Impact:** This session addressed health and legal challenges associated with siting facilities near populated areas. Topics included the known and potential unknown health impacts of CCUS technologies and how communities can be better informed and compensated for any adverse effects.

  - Research results on the potential climate and local air pollution impacts of CCUS in the Gulf Region. The findings suggest that secondary particulate matter falls when coals are retrofitted with CCUS, but that post-combustion amine slip can mean that it increases for natural gas and most industrial facilities.

  - Analysis of air quality co-benefits of carbon capture in Louisiana, indicating positive health benefits. The health and economic impacts were estimated, and a public Louisiana Data Explorer was released.

  - An examination of energy justice, legal research, and community resources law, particularly in the context of tribal nations and the energy transition. The presentation covered oil and gas law, natural resources property law, environmental policy, tribal nation energy justice and sovereignty, and legal research on energy resources on tribal lands.

Resources

ExxonMobil Low Carbon Solutions Rose Project

Houston CCS Alliance

CCUS Economic Impact Study AngelouEconomics

"What are the likely air pollution impacts of CCUS?" *Journal of the Association of Environmental & Resources Economists*.

"Quantifying air quality co-benefits to industrial decarbonization: the local Air Emissions Tracking Atlas" *Frontiers in Public Health*.

LOCAETA: comprehensive tool for measuring public health impacts associated with emissions Carbon Solutions

Made possible with support from Alfred P. Sloan Foundation and U.S. Department of Energy