INDUSTRY MAKES.

WHAT IS CARBON CAPTURE AND SEQUESTRATION AND WHY IS IT CRUTIAL TO OUR FUTURE?

Carbon Dioxide (CO_2) is a greenhouse gas that all humans breathe out of our lungs and into the air. CO_2 is in your soft drinks; it is used to carbonate your water and is consumed by all the trees as an essential nutrient for growth. CO_2 is not flammable or explosive.

Society and the governments that represent them, are demanding a drastic reduction in CO_2. Thankfully, industry has an applied science that is a vital technology and is in demand. Carbon Capture and Sequestration (CCS).

CCS is often dismissed as unnecessary, unproven, or risky by environmentalists. But it is crucial technology that will help meet net carbon goals.

CCS is the science of trapping CO_2 from the atmosphere, or interior processes, from burning coal, gas, oil, or wood, liquifying it, and burying it deep underground safely and permanently. CCS facilities operate safely around the world, and, more specifically, in Louisiana through enhanced oil recovery projects, as well as CO_2 pipelines that have been in operation for several decades.

Unlike renewable energy, CCS cuts industrial emissions such as those from cement-making or steel manufacturing, in addition to all other traditionally thought of manufacturing processes. Additionally, instead of throwing away the current energy economy, CCS adapts to it- it has become increasingly apparent that the wholesale replacement of a fossil-fuel economy with alternatives like solar, wind and batteries is not possible at the required pace — whether logistically, economically, socially, or politically. These alternative energy plans have proved themselves unreliable.

CCS is more costly in a head-to-head comparison with solar or wind, but it adds predictability, diversity, and flexibility, making the whole energy complex more affordable and resilient. Governments around the world have begun auctioning underground carbon dioxide storage space, with oil companies and specialists attracted to a valuable new business line. In North America, the US has introduced a tax credit of $85 per ton of carbon dioxide captured, to make the application of CCS science more affordable.

The production of "blue" hydrogen from fossil fuels requires carbon capture, and hydrogen-using industries such as fertilizer producers, steel manufacturers, and refineries need this technology to meet ambitious carbon neutral goals and to meet the need for non-Russian oil and gas and even coal.

Today, many governments around the world cannot give exporters the long-term commitments they want because of net-zero carbon goals set by elected and non-elected bodies. Converting power plants and factories to ultra-low emissions can resolve this issue.

Companies along the Gulf Coast that manufacture steel, aluminum, plastics, fertilizers, and other such materials need to decarbonize to retain access to world markets, and they need to do it quickly. Carbon capture helps meet the need to ensure the long-term viability of the oil, gas, and petrochemical industry in a world of advanced science and environmental activism and scare tactics.

Source: The National News
Louisiana Department of Natural Resources
Louisiana State University