Abstract:
Carbon Capture, Utilization, and Storage (CCUS) is one of the most effective approaches for quickly reducing emissions of carbon dioxide from industrial facilities and power generation. The objectives of this project are: Develop a staged 3x10yr CCUS deployment analysis roadmap. Utilize the NPC national analysis construct and regionalize for local impacts. Analyze the emissions AND economic investment impact in the Houston Area. Assess and position CCUS “optionality” to alternative geologic formations for both storage and EOR – as well as -for the extended energy producing network in the greater US Gulf Coast in all directions from Houston. The findings of this project are: Investment and risk hurdles will require “strategic investment”. A mix of EOR and pure storage provides an investment portfolio approach for CCUS. Current base of target geologies and infrastructure options are far greater than the stationary emissions in the 9 county Houston region – long term expansion impact. Federal, state and local government policies must support/accelerate this transition.

Mr. McConnell has joined the University of Houston Energy program in 2018 as the Executive Director for Carbon Management and Energy Sustainability. He will coordinate a campus-wide effort to address marketplace challenges in the energy industry. All disciplines of research in science, engineering, business economics, law and policy will work closely with UH energy industry partners in oil and gas, petrochemicals, and the electric power markets to collaborate on new technologies, policies and business models for the future. Prior to joining UH Energy, McConnell was the executive director of the Energy and Environment Initiative at Rice University for the past 5 years. McConnell currently serves on the US EPA Science Advisory Board, is a board member of the Energy & Environmental Research Center (EERC) Foundation in North Dakota, is a member of the National Coal Council, has served on the Society of Petroleum Engineers and National Petroleum Council subcommittees, and has held a number of board positions including chairmanships of the Gasification & Syngas Technologies Council and the Clean Carbon Technology Foundation of Texas. McConnell holds a bachelor's degree in chemical engineering from Carnegie-Mellon University (1977) and an MBA in finance from Cleveland State University (1984).