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world converge at on problems

Ten nations were represented at the second International Workshop on Offshore Geologic CO2 Storage held June 19-21 at Lamar University's Center for Innovation, Commercialization and Entrepreneurship (CICE).

The workshop, hosted by Lamar University and University of Texas Geosciences, included sessions on finding offshore storage, environmental and overburden monitoring, offshore assessment and more.

"This was an amazing group of scientists and engineers … seeing Beaumont/Port Arthur for the first time," said Paul Latiolais, director of the CICE. "They were stunned with the amount of industry and growth and did not fully understand that

the petrochemical process originated in Beaumont, not Houston. They have glowing reviews of the conference and the region. They loved the Museum of the Gulf Coast.

“The long-range strategy of CO2 recovery on a national and international scale makes a very compelling case for federal agencies, the administration and industry. The science points to our region as the most optimal place in the world for large-scale storage.”

In addition to sharing scientific papers and posters, more than 60 scientists from around the world presented the latest information on CO2 geologic storage, according to Brian Sattler, director of Public Relations at Lamar University.

Tim Dixon, manager of the Technical Programme of the IEA Greenhouse Gas R&D Programme (IEAGHG), based in the United Kingdom, said the conference was extremely helpful. IEAGHG is an international research program established in 1991, funded by 33 member countries and companies, focusing mostly on carbon dioxide capture and geological storage (CCS). Dixon is responsible for managing the delivery of the whole technical program, and for ensuring IEAGHG activities provide the evidence-base to support regulatory and policy developments for CCS.

Dixon said scientists at the conference discussed opportunities to take CCS offshore.

“It’s really important,” Dixon said. “There are a lot of benefits of going offshore. There’s a lot of potential there for storage. We’ve got a few countries doing it already in the world, and so what we can do is bring the expertise of those who are doing it already to those who are interested in doing it. There are countries like Norway and the Netherlands who have been doing it for a while. … What you’ve got here (in Southeast Texas) is a great potential for the U.S. to do it in this immediate region. You’ve got a great offshore and lots of CO2 sources here.”

Forty-eight conference attendees visited Air Products, a carbon capture facility inside the Valero plant in Port Arthur.

“There’s already one large-scale project in Port Arthur — the Air Products project that captures over a million tons of CO2 a year,” Dixon said. “You’ve got well-developed transport infrastructure. … (Southeast Texas) also lends itself to being a

hub for CO2 transport as well."

Dr. Timothy "Tip" Meckel, research scientist with the Bureau of Economic Geology at University of Texas and a featured speaker at the conference, said there are more opportunities for carbon capture and storage facilities in Southeast Texas.

"The global research and business communities are moving forward with clean energy development, including the recovery of CO2 emissions," said Meckel. "The region here is particularly interesting because it has a high concentration and a variety of CO2 emission sources. … The conference hopes to strengthen international collaborative efforts to deploy CCS technology for atmospheric emissions abatement. The second goal is to receive advice on developing a local demonstration project. There is a possibility for the Golden Triangle region to host a DOE-funded demonstration project that integrates CO2 capture, transport, utilization and permanent geologic storage.

"Southeast Texas is one of the best places in America for CO2 capture and storage. There are diverse emissions sources, and some recovery has already been demonstrated at Air Products facility at Valero refinery as well as in Lake Charles. … For permanent geologic storage for reduction of atmospheric emissions, the Gulf Coast geology is excellent. It is one of the most explored basins in the world for hydrocarbons, and subsurface data is readily available. The geology does not stop at the shoreline, and the near offshore region is perhaps even more suitable, mainly because it is owned by a single landowner, the Texas General Land Office, which makes project development more straight-forward.

"As the industries in the region consider large expansion plans — gas-cracking units, compression for LNG export, etc. — now is the time to incorporate CO2 emissions abatement technology. Texas has higher CO2 emissions than the next two states combined, so any management of CO2 emissions will impact the state most directly. The development of a CO2 management industry in the area could provide job growth and training opportunities, and the Golden Triangle could lead the nation in clean energy development.

"In addition, revenues and royalties from subsurface CO2 storage on offshore state lands would be deposited into the Permanent School Fund for disbursement throughout the state

in support of primary education thus minimizing property tax increases."

Dennis Isaacs, executive director of the Golden Triangle Business Roundtable, attended the conference and said advances in technology will enable local industry to begin capturing CO2.

"You have a lot of industry here and a lot of combustion devices here, a by product of refining crude oil. So you have a lot of CO2 emissions," said Isaacs. "We knew this issue was coming but the technology for trying to abate it hadn't really evolved yet. Now, we've done a really good job of controlling most of the criteria pollutants that are precursors to air pollution like sulfur dioxides and nitrous oxides and photochemical oxidants. We've done a really good job in Southeast Texas in industry — substantial reduction in the last 25 years. Now we're moving into that era of CO2 and the beneficial aspects of capturing that — how we capture it, how we store, and also the benefits environmentally. This is the next era, not only as a commercial issue but also an environmental issue. These folks (at the conference) from all over the world are looking at this because global warming is a global issue. Paul's group has been very good at accommodating this international community to begin to try to collaborate on a global issue."

Sponsors were Lamar University CICE, UT Geosciences Bureau of Economic Geology, Gulf Coast Carbon Center, IEAGHG, Carbon Sequestration Leadership Forum, South Africa National Energy Development Institute, and the City of Beaumont.

International organizations with attendees included National Oceanography Centre, University of Southampton, UK; Japan CCS, Co., Ltd.; School of Applied Social Studies, Robert Gordon University, Scotland; Pemex Exploration & Production, Mexico; Applied Biology Group, Marine Ecology Research Institute, Tokyo, Japan; TNO, Utrecht University, The Hague, Netherlands; International Energy Agency, The Australian National University, Brisbane, Australia; Gassnova SF, Norway; IEAGHG, Cheltenham, UK; UK-China (Guangdong) CCUS Center, China; Research Council of Norway; University of Bergen, Norway; University of Edinburgh, Scotland; the Global CCS Institute, Melbourne, Australia; Sonedi, South Africa

National Energy Development Institute, South Africa; Industrial Technology Research Institute, Taiwan; The Research Institute of Innovative Technology for the Earth, Kyoto, Japan.
U.S. organizations included U.S. Department of Energy; U.S. Environmental Protection Agency; Lawrence Livermore National Laboratory; ExxonMobil; Shell; Gulf Coast Carbon Center, The University of Texas Bureau of Economic Geology; Boone Pickens School of Geology, Oklahoma State University; School of Earth, Ocean, and Environment, Earth Sciences and Resources Institute, University of South Carolina; University of Texas at Austin School of Law; Bureau of Ocean Energy Management; Southern States Energy Board, Pacific Northwest National Laboratory, Louisiana State University; Battelle Memorial Institute, Columbus, Ohio; Columbia University; Advanced Resources International, Washington, D.C.; Deloitte, Pittsburgh; Louisiana State University; Drexel University; National Energy Technology Laboratory, Leidos; AquaNRG Consulting; and Sonardyne.

Courtesy photo - More than 60 scientists representing 10 nations attended the second International Workshop on Offshore Geologic CO2 Storage held June 19-20 at Lamar University's CICE.

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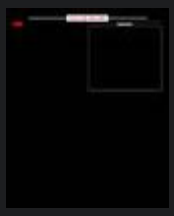

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