

# Despite Climate Concern, Global Study Finds Fewer Carbon Capture Projects

Matthew L. Wald, New York Times, 10-1013

WASHINGTON — The number of large-scale projects to capture and bury carbon dioxide has fallen to 65 from 75 over the last year, a worldwide survey has found, despite a consensus among scientists and engineers that such projects are essential to meet international goals for slowing the buildup of climate-changing gases.

The [survey](#) was released on Thursday in Seoul, South Korea, by the Global CCS Institute, which is based in Canberra, Australia. Since a survey a year ago, five projects have been canceled, one reduced in size and seven postponed, while three have been added, the report said.

The leader in capture and sequestration, as the technique is known, is the United States, the report said, although that is mostly because of the use of carbon dioxide for stimulating the flow of oil out of old wells. Otherwise, the American program for capturing carbon dioxide from power plants is lagging.

The International Energy Agency expects [carbon capture and storage](#) to rank third among ways to reduce carbon emissions by 2050, behind energy efficiency and the use of renewable sources like solar and wind power, and ahead of nuclear power and a switch to lower-carbon fuels. The Global CCS Institute's report, referring to carbon capture and sequestration, found that "while C.C.S. projects are progressing, the pace is well below the level required for C.C.S. to make a substantial contribution to climate change mitigation."

Gareth Lloyd, the general manager of corporate affairs at the CCS Institute, said at a news conference in Seoul that despite the growth in renewable energy, about 60 percent of energy in 2060 will still come from fossil fuels, so "C.C.S. is not an optional technology if we're to address climate change."

Capturing and burying carbon is a cheaper route to low-carbon energy than wind or solar power, he said. "Policies are skewed strongly to renewables without much attention to what the lowest-cost options are," he said.

Carbon capture, though, has attracted opposition from people who oppose coal mining, itself environmentally damaging, and others who worry about injecting carbon dioxide deep below the earth's surface.

Among the problems, the report said, is a lack of support for projects that demonstrate new technologies. But it said that China, with 12 plants at various stages of planning and construction, was "well positioned to influence the future success" of carbon capture. China is now the leading producer of carbon dioxide.

Carbon can be captured from electricity plants that burn coal or natural gas, or from oil refineries and other kinds of industrial plants. The dominant source, though, is coal-fired power plants, and last month the Environmental Protection Agency [proposed rules to limit emissions](#) from new coal plants and said it would also write regulations to reduce emissions from existing facilities.

But the technology for capturing carbon has not been proved to work on a commercial basis, either in the United States or abroad. The Energy Department [canceled its main project demonstrating the technology](#) in 2008. It would have turned coal into a mixture of gases and captured the carbon dioxide before combustion.

The department eventually started over with a plan to burn coal in pure oxygen so the flue gases would be nearly pure carbon dioxide, eliminating the task of separating it from other gases. That plan was aided by

financing from the federal stimulus program, although construction has not begun.

The institute's new report said three American projects began operating in 2013, all based on natural gas. One of them, the [Air Products Steam Methane Reformer Enhanced Oil Recovery Project](#), in Port Arthur, Tex., captures carbon from natural gas that is used in an oil refinery. The second, the [Coffeyville Gasification Plant](#), recovers carbon dioxide from a fertilizer operation in southeast Kansas; a firm called Chaparral Energy compresses the gas and ships it 70 miles by pipeline to an oil field. The third project is the [Lost Cabin Gas Plant](#) in central Wyoming, where the gas is also used for oil recovery. Brazil started up one carbon capture plant, for use in an oil field.

Carbon capture experts say two important projects will open soon in North America: the [Southern Company's Kemper County plant](#) in Mississippi, which will burn coal to make electricity and provide carbon dioxide for oil recovery, and the [Boundary Dam coal plant in Saskatchewan](#), which will do the same.

Carbon capture and sequestration was demonstrated at a coal-burning power plant in New Haven, W.Va., built in 1980 and run by American Electric Power. But the utility [shut down the carbon capture equipment in 2011](#) because it could not sell the carbon dioxide or recover the extra cost from its electricity customers, and the equipment consumed so much energy that, at full scale, the project would have sharply cut electricity production.