The Midwest Geological Sequestration Consortium's (MGSC) Illinois Basin – Decatur Project (IBDP) is a collaboration of the MGSC, the Archer Daniels Midland Company (ADM), Schlumberger Carbon Services, and other subcontractors to inject 1 million metric tons of anthropogenic carbon dioxide (CO_2) at a depth of 2,133 m at a site owned by ADM in Decatur, Illinois. ADM provides the carbon dioxide as a byproduct of its production of fuel ethanol from Illinois corn. MGSC is one of seven regional projects funded by the United States Department of Energy to test the safety and effectiveness of carbon capture and storage as a measure to reduce emission of carbon dioxide, a greenhouse gas, into the atmosphere.

The IBDP began operational injection on November 17, 2011. As of September 2013, the project has injected volume nearly 600,000 metric tons of CO_2. Injection will continue through late 2014 at which time the injection operation will shut down when 1 million metric tons have been injected. Environmental monitoring will continue for at least three more years, but likely longer. To date, the injection has proceeded as planned with the receiving reservoir, the Mount Simon Sandstone, readily taking the injected volume of 1,000 metric tons per day. Capacity, injectivity, and containment have all met pre-injection expectations and researchers continue to focus on validating the project's environmental framework, understanding the carbon dioxide distribution in the subsurface, and improvements in operations and monitoring well equipment. Pressure readings from an observation well 305 meters from the injection well suggest that the injected CO_2 has not reached the middle of the 457 meter-thick Mt. Simon reservoir. Models that project the movement of the CO_2 plume over 100 years suggest that the CO_2 will remain below this level. Data from a 3D vertical seismic profile acquired in early April 2013 have helped further define the position of the plume.

The IBDP research effort, part of the U.S. Department of Energy – National Technology Laboratory's Regional Carbon Sequestration Partnership program, is now complimented by the development of additional injection capacity of 2,000 metric tons per day, under development as part of the Illinois Industrial Carbon Capture and Storage project. Both sites are at the facilities of the Archer Daniels Midland Company in Decatur. The combined projects will allow evaluation of subsurface injected carbon dioxide from two high-volume injection wells that together will advance understanding of the volumes to be dealt with at a scale much more resembling storage from a commercial pulverized coal power plant.