

Illinois Decarbonization Fact Sheet

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Delineated below are several examples that indicate why Illinois has become the effective national center in U.S. for hydrogen and other low and no carbon gas research and commercialization efforts.

University of Illinois, Urbana/Champaign – has created and is leading the Midwest Hydrogen Partnership. They are positioning Illinois for the hydrogen economy. Their Prairie Research Institute received **\$3.5 million** from DOE to demonstrate Direct Carbon Capture (**5,000 tons**) in steel making to produce low carbon cement. <https://hydrogenenergy.illinois.edu/>

State of Illinois – Governor's Office - has formally partnered with six other Midwestern States to pursue DOE funding for a **\$2 billion** hydrogen hub. It would create green jobs, transition communities to carbon free energy and provide lower cost options to decarbonize homes and business. Here is a link to that opportunity. <https://www.naturalgasintel.com/seven-midwest-states-collaborating-to-vie-for-hydrogen-hub-to-create-jobs-lower-emissions/>

University of Chicago - has a newly created hydrogen center, and just received **\$12.5 million dollars** from DOE to launch it. Called the Catalyst Design for Decarbonization Center it is led by Professor Laura Gagliardi. <https://news.uchicago.edu/story/new-125-million-center-uchicago-investigate-zero-emission-hydrogen-energy#:~:text=The%20U.S.%20Department%20of%20Energy,emission%20alternative%20to%20fossil%20fuels.>

Argonne National Labs is doing cutting edge hydrogen and fuel cell research and has set up a center to help advance related innovative technologies and systems. <https://www.anl.gov/taps/fuel-cell-and-hydrogen>

Northwestern University -recently received **\$10.35 million** from the Department of Energy to lead a newly created Center (EFRC) focused on developing hydrogen-based energy technologies to fight climate change. <https://www.mccormick.northwestern.edu/news/articles/2022/08/northwestern-receives-10-million-for-new-national-energy-research-center/>

University of Illinois – Chicago, Energy Research Center (ERC) – is home to DOE Midwest CHP Technical Center. ERC led a stakeholder group to get CHP related REC incentives for hydrogen and RNG, placed in **CEJA**.

Illinois' industrial sector is also helping to lead the transition to the hydrogen economy. For example, Illinois industry giant **Caterpillar** has developed and is now selling electricity generators, including combined heat and power (CHP) systems, that can not only run on H2 blends, but now can operate on **pure 100 % H2** as well. https://www.cat.com/en_US/news/engine-press-releases/caterpillar-to-offer-power-solutions-operating-on-100-hydrogen-to-customers-in-2021.html

Chicago Building Owners and Operators (BOMA) - some members are looking to low and no carbon fuels for their buildings and have several pathways to do that with CHP systems, boilers, furnaces, gas heat pumps etc. now being manufactured, or will soon be entering production, to operate on low/no carbon H2 and RNG.

The above list is not comprehensive, and doesn't include **GTI Energy**, who is the recognized U.S. leader on gas decarbonization. But it does highlight some of the gas related decarbonization initiatives being led by Illinois. It provides opportunity for Illinois to broadly accelerate decarbonization, while expanding economic growth. But that work is premised on Illinois communities, and residential and business customers, *having energy choice*.