

Slide #1: Why Illinois Passed the Hydrogen Economy Act

- The spending law calls for four hubs, but “aiming for more, like six to ten, to ultimately get us closer to the goal of a national hydrogen network.”
- Regional hubs are envisioned as a network of clean-hydrogen producers, with customers and infrastructure to connect them.
- The goal is to decarbonize major industrial sectors dependent on natural gas. The Biden administration is pushing clean hydrogen basic research, demonstration projects and “ecosystem” development.
- Each hub will be chosen based on a mix of criteria. At least one must use fossil fuels to produce hydrogen, known as "blue hydrogen," with others sourcing renewable energy and nuclear power for cleaner “green” hydrogen.
- Key selection factors also include a concentration of industrial emitters and high fossil fuel use; plants that qualify for carbon-capture 45Q tax credits; hydrogen and ammonia production; large geologic formations for hydrogen or CO₂ storage; and existing infrastructure for hydrogen blending and for “low-impact” hydrogen and CO₂ transport, says the institute.
- Funding would be roughly \$500 million to \$1 billion per hub, with participants matching federal investment. DOE is reviewing 300 responses from its most recent request for input but has not said when its official RFP will be issued.
- The Great Plains Institute, a Minneapolis nonpartisan think tank, identified 14 potential sites for hydrogen and carbon management hubs in U.S. regions (see map above), although these “are by no means exclusive.”

Slide #2: What's the Hydrogen Economy Act?

- The Task Force shall consist of the following members:
 1. one member of the Senate, appointed by the President of the Senate;
 2. one member of the Senate, appointed by the Minority Leader of the Senate;
 3. one member of the House of Representatives, appointed by the Speaker of the House of Representatives;
 4. one member of the House of Representatives, appointed by the Minority Leader of the House of Representatives;
 5. one member representing the Governor's Office of Management and Budget, appointed by the Governor;
 6. one member representing a statewide labor organization, appointed by the Governor;
 7. one member representing a national laboratory that researches alternate fuels, energy, and environmental impacts, appointed by the Governor;
 8. one member from the Office of Energy, appointed by the Director of the Illinois Environmental Protection Agency;
 9. one member representing local economic development interests, appointed by the Director of Commerce and Economic Opportunity;
 10. one member representing a trade association, appointed by the Director of Commerce and Economic Opportunity;
 11. one representative of a manufacturing association, appointed by the Director of Commerce and Economic Opportunity;
 12. one representative of a community-based organization that supports environmental justice communities, appointed by the Director of Commerce and Economic Opportunity;
 13. one member representing the University of Illinois Institute for Sustainability, Energy, and Environment, appointed by the President of the University of Illinois System;
 14. the Director of the Illinois Power Agency or his or her designee;
 15. the Chairman of the Illinois Commerce Commission or his or her designee;

16. the Director of Commerce and Economic Opportunity or his or her designee;
 17. the Director of Natural Resources or his or her designee;
 18. the Secretary of Transportation or his or her designee;
 19. the Director of Agriculture or his or her designee;
 20. the Chair of the Illinois Community College Board or his or her designee;
 21. one member with knowledge of public safety, appointed by the State Fire Marshal;
 22. one member representing a non-profit energy research organization, appointed by the Governor;
 23. one representative of a trade association representing the investor-owned electric and natural gas utilities and power generation companies in the State of Illinois, appointed by the Speaker of the House; and
 24. one representative of a trade association representing wind and solar electric generators, renewable transmission companies, and storage companies, appointed by the President of the Senate.
- Both the University of Illinois and Argonne National Laboratory in Lemont, IL have partnered with the intent of participating in the federal Clean Hydrogen Hub program.
 - They have been partnering on Hydrogen related research in Illinois since 2019. Both entities will be represented in the Task Force as the state is hoping to take advantage of their expertise.
 - The Task Force Responsibilities:
 - Publishing a plan to create a Hydrogen Hub in Illinois
 - Identifying opportunities to integrate hydrogen into the economy
 - Analyzing barriers to hydrogen development
 - Recommending policies to catalyze deployment of hydrogen in the state economy

- The Task Force shall report to the Governor and the General Assembly by December 1 of each year on its activities, findings, and recommendations.
- The legislation received bipartisan support and passed unanimously in both chambers. Still waiting to be signed by Illinois' Governor.

Slide #3: Illinois' Energy Transition & the Hydrogen Economy Act

- Illinois passed the Climate and Equitable Jobs Act (CEJA) in September 2021
- CEJA requires 100 percent clean energy by 2050
- Hydrogen is a clean alternative to methane that can also be transported through gas pipelines, minimizing disruption and reducing the amount of expensive infrastructure needed to build a new hydrogen transmission network.
- Illinois' six nuclear plants can produce hydrogen that can be mixed with natural gas to reduce CO2 emissions.
- CEJA also preserved the state's nuclear plants, which is good news for Hydrogen research because our state's nuclear plants are already looking into this.

Slide #4: What's After the Hydrogen Economy Act

- Legislation received bipartisan support and passed unanimously in both chambers. Still waiting to be signed by Illinois' Governor.
- Once signed into law, we need to quickly appoint its members as the Task Force is supposed to meet at least quarterly and report to the Governor and the General Assembly by December 1 of each year on its activities, findings, and recommendations.
- First meeting is likely to be July 1.

- Depending on the Task Force findings, the state legislature may need to pass new legislation to help implement the recommendations.
- Illinois did set aside \$40 million capital appropriation to DCEO for grants, awards, and contingent costs associated with infrastructure projects, including but not limited to zero emission vehicle manufacturing, clean energy, supply chain manufacturing, and environmental purposes
- As well as an additional \$70 million capital appropriation to CDB for energy efficiency projects at state facilities.