Clean Hydrogen Production Potential as a Key Zero-Carbon Energy Tool

Both Congress and the Biden Administration are considering ways to elevate clean hydrogen production. President Biden's American Jobs Plan proposes a number of policies to build out the hydrogen economy in the United States, such as a new tax credit and investments to support 15 clean hydrogen demonstration projects in distressed communities.

This map suggests a few areas of the country where an initial set of clean hydrogen projects like those proposed in the American Jobs Plan could be located. The blue gradient zones show the density of industrial facilities that could potentially have demand for clean hydrogen, specifically in the steel, petrochemicals, and ammonia sectors. Demonstrations in these zones could produce either green or blue hydrogen, as all selected zones are in areas with favorable conditions for geologic carbon dioxide storage. The bright blue dots represent facilities that currently generate emissions from hydrogen production and could be strong candidates for carbon capture retrofits based on emissions guantities. The orange areas are communities that are classified as "at risk" or "distressed" by the Economic Innovation Group based on factors like income, employment turnover, housing vacancy, and education level. For this map we only chose to show orange "distressed" areas that were close to a H2 production site or co-located with a blue industrial density zone. If the Biden Administration intends to locate these clean hydrogen demonstrations in communities facing economic strain, this map shows a number of nearby areas in need of the jobs and economic activity that would be generated by these kinds of projects.



Source: Elizabeth Abramson, Great Plains Institute, 2021. Based on data from EPA 2019 and The Economic Innovation Group's Distressed Communities Index, 2014-2018.

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