



CAC Policy Principles for Hydrogen in US

CAC's overarching goals center on reducing climate pollution and accelerating the transition to clean energy and a sustainable society in ways that support justice, jobs, improved health, and quality of life for all. When targeted at hard-to-electrify and energy-intensive applications, truly clean hydrogen can help catalyze the U.S. transition to a clean and renewables-based economy. However, hydrogen production, transport, and use can also carry significant risks including delaying decarbonization efforts, increasing health harming pollution, and serving as a greenwashing tool. In fact, some members of the fossil fuel and hydrogen industries, and their allies, are promoting hydrogen strategies that could have devastating climate and environmental justice implications. Considering the climate, health, and social and environmental justice considerations linked to hydrogen, these principles put forward a vision for the appropriate role of hydrogen in our clean energy future to minimize its risks and maximize its benefits.

Production

- To be considered truly 'green' and result in zero direct and upstream carbon and health harming emissions, hydrogen production projects must be electrolytic and those projects must:
 - be powered by new clean energy generation that is not already on the grid (also known as 'additionality');
 - be within the same geographic boundary as the clean energy project to prevent region-shifting of emissions (deliverability); and,
 - be matched with the clean energy project on an hourly rather than annual basis.
- CAC does not advocate for the proliferation of fossil-based hydrogen projects.



- Hydrogen produced by fossil fuels or other polluting feedstocks carries risks of significant harm. These include respiratory and other health harms from co-pollutant exposures in addition to prolonging fossil fuel infrastructure and exacerbating climate pollution.
 - To the extent these projects are considered, they should be subject to strict scrutiny and strong climate and health protections. Any emissions accounting of fossil-fuel or biogenic hydrogen must be updated to reflect the present reality of high methane system leakage and prohibit the use of flawed biomethane assumptions.

End Use

- Hydrogen deployment must be targeted to hard-to-electrify and energy-intensive applications, like steel manufacturing and long-haul transport. Hydrogen deployment should be minimized where direct electrification is a better option, as it may delay decarbonization, increase transition costs, and pose greater risks to communities.
- Current hydrogen end uses must be converted away from “gray” hydrogen in a way that does not undermine rapid decarbonization or greenwash polluting industries, including the petrochemical industry.
- Blending hydrogen into the gas distribution system is an inefficient use of hydrogen at scale and presents numerous and significant risks to health and safety; perpetuates fossil fuel pollution harms as well as the production of health-harming NOx emissions from the combustion of gas-hydrogen blends; and is likely to slow, not speed, the overall clean energy transition. Where feasible, direct electrification overwhelmingly serves as a vastly superior approach to decarbonization, including as a means of decarbonizing the building sector.

Safety, Oversight, Engagement, and Jobs

- Hydrogen is an indirect greenhouse gas, and any fugitive or intended emissions must be minimized and accounted for in lifecycle assessments. Hydrogen that is purged, vented, or flared should not be incentivized, and companies should be required to adopt emissions management plans, including known best practices (e.g., around recycling and storage) and best-available sensors.



- The health risks and the impacts of hydrogen infrastructure on frontline communities, including NOx emissions, safety risks from inadequate or unsafe infrastructure, and cumulative pollution impacts, must be addressed when locating hydrogen facilities. Clean energy solutions must decrease NOx emissions.
- Before the government selects hydrogen projects for funding, it must ensure local communities have meaningful information about the projects under consideration, robust and early engagement on project design including necessary technical assistance, and opportunity to participate in funding decisions. Projects should include community identified benefits and protections for the community's health and safety.
- Hydrogen facilities and applications must adhere to robust worker and safety protections, including real-time monitoring of harmful emissions inside and outside the facility and including workers in all aspects of safety and process safety management.
- Investments must support workers and communities and translate into quality, family-sustaining, union jobs that are accessible to all by requiring, incentivizing, or rewarding commitments that meet high road labor standards and responsible labor and community benefit practices.

SUPPORTING GROUPS:

