

December 7, 2023

Honorable Michael S. Regan
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Regan:

We, the undersigned organizations, thank you for your leadership in taking actions to reduce climate and health-harming air pollution from some of the nation's largest industrial sources. Building from these actions, we respectfully urge you to establish protections to reduce pollution caused by producing hydrogen with fossil fuels. Fossil hydrogen—sometimes called gray, blue, and brown hydrogen—comes with inherent pollution risks that must be addressed through enforceable standards. Incentives and voluntary measures cannot be relied upon to protect frontline communities. We therefore urge EPA to act quickly to develop protective national emission standards to limit the harmful climate and air pollution impacts of fossil hydrogen production facilities.

Today, nearly all the hydrogen produced in the U.S. comes from high-polluting fossil-based methods and is mostly used in petroleum refining and ammonia and methanol production. Fossil-based hydrogen production facilities emit large amounts of harmful greenhouse gases, criteria air pollutants, and hazardous air pollutants. These facilities are often located in communities already facing harmful industrial pollution burdens, including California's South Coast and the Gulf Coast portions of Texas and Louisiana. With a significant projected increase in hydrogen production driven, in part, by federal support, the lack of comprehensive pollution standards for these facilities is a critical regulatory gap. The Biden-Harris Administration's recently announced support for the development of hydrogen hubs—including new fossil-based facilities with significant production capacity—further underscores the need for rigorous federal air pollution standards.

Existing fossil hydrogen facilities collectively emit tens of millions of tons of greenhouse gases annually. Merchant facilities, meaning those that produce hydrogen to sell, alone emitted over 40 million tons of climate pollution in the U.S. in 2020 while producing 10 million tons of hydrogen. The largest individual merchant facility, located in Port Arthur, Texas, produces more than 2 million tons of climate pollution in a year, comparable to emissions typical of a 300 megawatt coal-fired power plant. Absent protective and enforceable standards, the next 10 million tons of hydrogen production capacity added in the U.S. could lead to 40 million tons of additional climate pollution per year.

Fossil-based hydrogen production also releases large amounts of dangerous conventional air pollution. Some individual facilities release hundreds of tons of nitrogen oxides that contribute to ozone and particulate pollution, along with volatile organic compounds, sulfur dioxide, and direct particulates. This pollution contributes to harmful health effects, including cardiovascular and respiratory ailments, cancer, and premature death. The limited available data also suggests fossil hydrogen facilities emit significant amounts of hazardous air pollution, which are toxic compounds that cause severe health problems such as cancer, birth defects, and neurological damage.

Hydrogen production facilities are typically located in petrochemical corridors and are often sited in or near communities with high proportions of low-income residents and people of color. According to EPA's ECHO database, 86% of merchant hydrogen facilities are in neighborhoods with two or more EJScreen

indices at the 80th percentile or above; 76% are in communities with six or more indices at that level; and 41% are in communities with 10 out of the 13 indices at the 80th percentile or above. There are also many plans for new facilities to be built in these same areas.

Large-scale hydrogen infrastructure buildout is projected over the coming decade, underscoring the need for EPA to move forward swiftly with protective safeguards. The Inflation Reduction Act and the Infrastructure Investment and Jobs Act included billions of dollars of investments designed to support “clean hydrogen,” yet neither legislation includes enforceable pollution limitations. Projections show significant new capacity from fossil-based production by 2035, suggesting that these methods could make up over two-thirds of new capacity additions over the next decade. Like existing hydrogen plants, planned facilities are also concentrated in already heavily impacted petrochemical corridors. Without swift action, these facilities will not face any requirements to limit emissions, further exacerbating their climate impacts as well as health burdens and inequities.

We therefore urge EPA to develop emission standards under sections 111 and 112 of the Clean Air Act for new, modified, and existing hydrogen production facilities. The standards should require hydrogen production facilities to limit air pollution to the greatest extent possible, and the process of listing this category and developing standards should move forward without delay.

Fossil hydrogen comes with a host of additional inherent pollution and environmental justice risks that must be considered and addressed by the federal government. For example, producing hydrogen from methane drives demand and upstream pollution from the oil and gas supply chain. It also requires significant and often dangerous pipeline infrastructure. For these reasons, the Biden-Harris Administration should do everything in its power to drive production toward the least polluting method: electrolytic hydrogen powered by new clean supply that is located in the same region and running during the same hours as the hydrogen production facilities themselves. At the same time, any new and existing facilities that do pursue fossil-based methods must be required to reduce their emissions to the greatest extent possible.

In addition, we urge EPA to continue to update and enforce other environmental requirements that apply to hydrogen production facilities to reduce the cumulative pollution burden on communities from these plants. In developing hydrogen policies, EPA should elevate the needs of communities facing environmental justice burdens, including communities in the vicinity of petrochemical infrastructure which have historically borne heavy pollution burdens and had little voice in decisions affecting their health and well-being. As it works to regulate the dangerous pollution from this industry, EPA must engage robustly and center the protection of the communities that have experienced the most harm from refining and petrochemical development and use, as well as from climate change impacts.

Sincerely,

Air Alliance Houston
Alabama Interfaith Power & Light
All Our Energy
Beaver County Marcellus Awareness Community
Between the Waters
Beyond Toxics
Black Appalachian Coalition

Breathe Project
Cafeteria Culture
California Communities Against Toxics
California Interfaith Power & Light
CASA
CASA in Action
Cherokee Concerned Citizens
Citizens Caring for the Future
Clean Air Action Fund
Clean Air Council
CleanAIRE NC
Coastal Action Network
Commission Shift
Conservatives for Responsible Stewardship
Earth Ministry/WA Interfaith Power & Light
Earthjustice
Earthworks
Environmental Defense Fund
Environmental Health Project
Environmental Integrity Project
Evergreen Action
First Congregational United Church of Christ Albuquerque
FracTracker Alliance
FreshWater Accountability Project
Friends of the Inyo
Fuerte Arts Movement
Georgia Interfaith Power & Light
HEAL Utah
Interfaith Power & Light
LSU Climate Pelicans
Mi Familia Vota
Michigan Sustainable Business Forum
Moms Clean Air Force
Mountain Watershed Association
NC Conservation Network
New Mexico & El Paso Interfaith Power & Light
New Mexico Sportsmen
North Carolina Sustainable Business Council
PA Jewish Earth Alliance
PennFuture
People Over Petro Coalition
Physicians for Social Responsibility Pennsylvania
Plastic Pollution Coalition
Poder Latinx
POWER Interfaith
ProgressNow New Mexico
Responsible Decarbonization Alliance

Rio Grande Indivisible, New Mexico
Rio Grande International Study Center
Sierra Club
Southern Alliance for Clean Energy
Sustainable Pittsburgh
Texas Campaign for the Environment
The Last Plastic Straw
The People's Justice Council
The Vessel Project of Louisiana
Together for Brothers
Turtle Island Restoration Network
Union of Concerned Scientists
UUP
Vermont Interfaith Power & Light
Western Colorado Alliance
Western Environmental Law Center
Western Leaders Network
350 New Mexico