

Environmental Justice Health Alliance for Chemical Policy Reform

July 31, 2024

Department of Energy Office of Energy Justice and Equity 1000 Independence Avenue SW Washington, DC 20585

Submitted to Docket Number: DOE-HQ-2024-0018

RE: Request for Information Related to the Department of Energy's Environmental Justice Strategic Plan

As organizations committed to just, equitable, and healthy communities, we submit the following comments urging the Department of Energy (DOE) to adopt an Environmental Justice Strategic Plan which sets forward a bold agenda to deliver protections to Environmental Justice (EJ) communities experiencing significant harm from fossil fuels, energy systems, and industrial infrastructure. This strategic plan must recognize the legacy, and continued harm, caused by the petrochemical industry in EJ communities and proactively transform the sector to eliminate fossil fuel inputs, greenhouse gas emissions and toxic pollution.

We note the continued absence of public health, community, and environmental justice assessments in many of DOE's programs, investments and research. This absence is particularly egregious given the documented health and environmental justice harm caused by energy and industrial processes. Significant reforms must be made to adhere to the Biden-Harris administration's call for "a whole-of-government approach to environmental justice" and to the vision articulated in <u>Executive Order 14096</u> of "an ambitious approach to environmental justice that is informed by scientific research, high-quality data, and meaningful Federal engagement with communities with environmental justice concerns."

DOE must expand, and reform, public participation and advisory processes to meaningfully respond to the input of Environmental Justice communities

It is a core tenet of Environmental Justice and EO 14096 that "all people should be afforded the opportunity to meaningfully participate in agency decision-making processes that may affect the health of their community or environment." Unfortunately, there has not been "meaningful"

engagement with communities already burdened by pollution caused by industrial and energyrelated infrastructure. Without this engagement, DOE cannot build equitable impact and evaluation criteria that ensure that the industrial decarbonization pathways do not exacerbate current inequalities and sacrifice zones.

Specific recommendations:

(1) Institute a formal Environmental Justice advisory body for the DOE similar to the National Environmental Justice Advisory Council (NEJAC) of the Environmental Protection Agency (EPA).¹

Given the disproportionate pollution burden from energy and industrial infrastructure borne by EJ communities, DOE must seek advice and recommendations from an advisory council representing the most impacted communities. This advisory council would help DOE achieve the EJ goals described in the RFI and improve transparency and accountability for the agency towards delivering equity and environmental justice.

(2) Expand existing advisory committees and roundtables to include Environmental Justice representation

Existing advisory committees and consultation processes must be modified to include adequate representation from communities most impacted by those industries. For example, the Industrial Technology Innovation Advisory Committee (ITAC) and Sustainable Chemistry Roundtables must be expanded. Although the Industrial Technology Advisory Committee includes industry representatives, including Eastman Chemical and Chevron, there are no members representing the communities most impacted by industrial emissions.² In addition, DOE must eliminate policies that require DOE roundtable participants to pay a fee to attend. This is a barrier to community participation and contrary to DOE's EJ goals. To meaningfully implement EO 14096, DOE's operating procedures must be modified and more inclusive measures must be implemented. Until there is adequate EJ representation from the communities most impacted, the recommendations produced from fora like the ITAC and the Sustainable Chemistry Roundables cannot be relied upon to support DOE's Environmental Justice goals.

(3) <u>Reform stakeholder engagement processes</u>

The DOE's "listening sessions on Hydrogen Hubs" and stakeholder forums on industrial decarbonization have not delivered "meaningful" engagement with communities already burdened by pollution caused by industrial and energy-related infrastructure. Communities can't *meaningfully* respond to a proposal or engage in a process without having adequate information to understand what is actually being proposed and how it might impact them. In addition, DOE must adopt inclusivity measures for public engagement such as, eliminating fees, providing translation, and partnering with community representatives to hold public meetings in impacted

¹ https://www.epa.gov/environmentaljustice/national-environmental-justice-advisory-council

² https://www.energy.gov/eere/iedo/meet-industrial-technology-innovation-advisory-committee

communities. Without this engagement, DOE cannot build equitable impacts and evaluation criteria that ensure that the industrial decarbonization pathways do not exacerbate current inequalities and sacrifice zones.

DOE's decarbonization investments must deliver health protections to EJ and frontline <u>communities</u>

DOE's Industrial Demonstration Program grants for the chemical and refining sector and netzero decarbonization pathways for the chemicals subsector endanger EJ and frontline communities by supporting expansion of facilities with known toxic emissions into already overburdened communities. None of the grant descriptions, nor the decarbonization pathways, include an assessment of the impacts on emissions of Hazardous Air Pollutant emissions (HAPs) or the potential to further entrench racialized exposure disparities to carcinogens and reproductive toxicants.

For example, one of the Industrial Demonstration Program grants would grant Exxon Mobile close to 332 million dollars for hydrogen and carbon capture and storage (CCS) demonstration technology at the Baytown Olefins Plant in Baytown, Texas.³ This facility emits tens of thousands of pounds of cancer, and other health harming, hazardous air pollutants (HAPs) into the neighboring communities every year and has racked up over 25 federal air quality violations in just five years.^{4 5} This project proposes to use hydrogen as an alternate fuel for high heat burners used to produce ethylene, a building block for synthetic chemicals, plastics and products. The hydrogen would be produced from natural gas with CCS. The technology supported by this grant will not reduce the toxic burden for fenceline communities and could result in increased harmful exposures because the fuel combustion in high heat burners is not the main source of HAPs. HAP emissions and elevated levels of HAPs in fenceline communities, are the result of stack and fugitive releases from the processing of chemicals used to make ethylene. ⁶ To the extent that this project enables and/or contributes to the expansion of the Baytown Olefins plant, this project is increasing the toxic burden on the neighboring communities and furthering environmental injustices.

Additionally, DOE's decarbonization pathways for the chemical sector are based on a 20% increase in basic chemical production which has the potential to further entrench the full life-cycle pollution burden caused by petrochemicals and plastic. This expansion is in direct conflict with the science demonstrating that the current production of chemicals and plastic are

³https://www.energy.gov/oced/industrial-demonstrations-program-selections-award-negotiationschemicals-and-refining#baytown

⁴https://www.houstonpublicmedia.org/articles/news/energy-environment/2024/03/25/481486/baytownplant-with-troubled-track-record-could-receive-up-to-332-million-from-federal-government-to-loweremissions/

⁵ https://www.justice.gov/opa/press-release/file/1007591/dl

⁶ https://www.epa.gov/sites/default/files/2015-08/documents/ii16_aug2007final.pdf

endangering "Earth's life support systems" and human health.⁷ Demand reduction to reduce chemical manufacturing, especially for the building blocks of plastic, should be deployed as a decarbonization strategy with public health and EJ benefits.

Specific recommendations:

 In partnership with the White House Environmental Justice Advisory Council (WHEJAC), adopt Environmental Justice criteria to govern DOE investments and research

EJ guidance is needed to direct investments to projects which deliver reductions in toxic pollution and reject projects which further sacrifice the health of fenceline communities. This is a critical time for the DOE to help remedy the legacy of toxic pollution experienced by communities living at the fenceline of chemical and plastic manufacturing. The new "net-zero" and "decarbonized" industrial build-out must not perpetuate and deepen the sacrifice zones already borne by environmental justice communities.

(2) <u>Halt DOE investments which support the expansion of the petrochemical and plastic</u> <u>industry</u>

From the Gulf Coast to Alaska, communities most harmed by petrochemical and plastic production are facing increased threats from expansion of existing facilities and the construction of new facilities.^{8 9} DOE grants for industrial decarbonization, hydrogen hubs and carbon capture and storage technologies are being awarded to chemical companies to support increased production and expanded facilities. Examples include:

• DOE grant of 100 million dollars to Dow chemical to build a new plant in the Gulf Coast to produce the chemical, and hazardous air pollutant, ethylene oxide with the addition of CCS.¹⁰ EPA's own analyses of cancer-causing pollution, repeatedly finds that ethylene oxide is one of the major risk drivers for excess cancer risk in

⁷ Philip J. Landrigan et al., "The Minderoo-Monaco Commission on Plastics and Human Health," *Annals of Global Health* 89, no. 1 (2023): 23, https://doi.org/10.5334/aogh.4056; Linn Persson et al., "Outside the Safe Operating Space of the Planetary Boundary for Novel Entities," *Environmental Science & Technology* 56, no. 3 (February 1, 2022): 1510–21, https://doi.org/10.1021/acs.est.1c04158.

⁸ "Damage to the Arctic from the fossil fuel/petrochemical industry includes threats from chemicals, plastics, and climate. These have combined to poison lands, waters, and traditional foods of Arctic Indigenous Peoples, with ongoing health effects that threaten their cultures and communities." Full report available: <u>https://www.akaction.org/wp-content/uploads/ipen-alaska_report-2024-finalcompressed.pdf</u>

⁹ "UN experts raise serious concerns about further industrialization of so-called Cancer Alley in southern US state of Louisiana, saying the development of petrochemical complexes is a form of environmental racism. The experts said that the new petrochemical complexes would exacerbate environmental pollution and disproportionately effect African American communities rights to life, health, and an adequate standard of living." https://news.un.org/en/story/2021/03/1086172

¹⁰https://www.energy.gov/oced/industrial-demonstrations-program-selections-award-negotiationschemicals-and-refining#novel

communities.¹¹ A recent, first of its kind, ambient air monitoring study in the petrochemical corridor of Louisiana (often referred to as Cancer Alley) found ethylene oxide levels exceeding EPA's upper-level regulatory limit in many communities and much higher than EPA's estimates.¹² The CCS technology at this new facility proposed for the Gulf Coast would not reduce ethylene oxide pollution, which is not released from the same sources as the CO2. By investing in the construction of a new ethylene oxide plant, DOE is subsidizing increases in cancer causing pollution in a region already overburdened with toxic emissions.

• The Midwest, Appalachian, and Gulf Coast hydrogen hubs all list ammonia production as an end use.¹³ So-called "blue ammonia" produced from natural gas with CCS technology is being invested in as a climate solution.¹⁴ These investments are resulting in a massive expansion of ammonia production and new facilities which are highly hazardous and polluting to neighboring communities.¹⁵ This expansion is clustering in already overburdened communities along the Gulf Coast and deepening harms to EJ communities. Similarly, other chemical manufacturing, such as low carbon aviation fuels (LCAF), are also described as end users.¹⁶ There has not been a health or justice evaluation of impacts from LCAF manufacturing.

(3) <u>Halt DOE investments in CCS and Hydrogen until robust public health and</u> <u>environmental justice evaluations have been completed.</u>

Communities living at the fenceline of chemical manufacturing are also at the forefront of the build-out of CCS and hydrogen infrastructure. To advance Environmental Justice for these communities, we support the WHEJAC recommendations on carbon management and a thorough evaluation of health harms to communities from hydrogen production, storage, transport and use:

- cease carbon management investments and projects
- clarify the landscape of carbon management initiatives and technologies that federal agencies are advancing,

¹³ https://www.arch2hub.com/wp-content/uploads/2024/05/ARCH2-FAQs-Final-5-13-24.pdf https://machh2.com/why-hydrogen/machh2-faq/ https://www.hyvelocityhub.com/wpcontent/uploads/2023/04/HyVelocity-H2Hub-FAQs-4_23.pdf

 ¹¹ https://www.epa.gov/system/files/documents/2023-01/2019%20AirToxScreen%20Risk%20Drivers.pdf
¹² Robinson et al 2024. Ethylene Oxide in Southeastern Louisiana's Petrochemical Corridor: High Spatial Resolution Mobile Monitoring during HAP-MAP Environmental Science & Technology Article DOI:

^{10.1021/}acs.est.3c10579

 ¹⁴ CIEL 2022. Fossils, Fuels and False Solutions. Agrochemicals are Propping Up the Fossil Economy. https://www.ciel.org/wp-content/uploads/2022/10/Fossils-Fertilizers-and-False-Solutions.pdf
¹⁵ EIP 2023. The Fertilizer Boom: America's Rapidly Growing Nitrogen Fertilizer Industry and Its Impact on the Environment and Public Safety. https://environmentalintegrity.org/wpcontent/uploads/2023/04/Fertilizer-Boom-Report-4.28.23.pdf

¹⁶ https://www.arch2hub.com/wp-content/uploads/2024/05/ARCH2-FAQs-Final-5-13-24.pdf

- conduct a systematic review of the evidence of risks related to carbon management
- engage in accountable communications with EJ communities
- ensure free, prior and informed consent and meaningful engagement of the most impacted communities be put into practice¹⁷

(4) <u>Invest in research to develop and expand sustainable chemistry which can deliver toxic</u> <u>pollution reductions across the entire production process – especially at the fenceline of</u> <u>chemical manufacturing.</u>

Investments are needed to reduce the toxic burden in EJ communities living at the fenceline of chemical plants. For example, instead of providing Dow Chemical with \$100 million to make more carcinogenic ethylene oxide, the DOE should be funding research and demonstration projects for non-toxic alternatives and processes that don't endanger communities, or the climate.

We appreciate the opportunity to provide input on the DOE's Environmental Justice Strategic Plan and look forward to future opportunities to work together towards a just, equitable and sustainable future.

Sincerely,

Environmental Justice Health Alliance (EJHA)	National
Alaska Community Action on Toxics	Alaska, National and International
Alliance of Nurses for Healthy Environments	National
BASEstud.io Incorporated	Newark, DE
Black Women for Wellness	Los Angeles, CA & National
Center for Earth Energy & Democracy (CEED)	Minneapolis, MN
Center for the Urban Environment, John S. Watson Institute for Urban Policy and Research, Kean University	New Jersey & National
Claymont Coalition for Environmental Justice	Claymont, DE

¹⁷https://www.epa.gov/system/files/documents/2023-11/final-carbon-management-recommendationsreport_11.17.2023_508.pdf

Clean + Healthy	New York
Clean Power Lake County	Waukegan, IL
Clean Water Action	National
Coming Clean Network	National
Community-Campus Partnership for Health	National
Comunidades Aliadas Tomando Accion	Arvin, California
Concerned Citizens of Wagon Mound and Mora County	Wagon Mound, NM
Delaware Concerned Residents for Environmental Justice	New Castle, DE
Earthjustice	National
Environmental & Public Health Consulting	National
Ethical And Respectful Treatment of Humans (EARTH)	Atlanta, GA
Family Farm Defenders	Madison, WI
Green America	National
Habitable (formerly Healthy Building Network)	National
Harambee House, Inc. / Citizens for Environmental Justice	Savannah, GA
International Center for Technology Assessment	National
Just Transition Alliance	National
Lideres Campesinas	Oxnard California

Los Jardines Institute	Albuquerque, NM
MADE SAFE	Irvington, NY
Moms for a Nontoxic New York (MNNY)	Albany, NY
Pesticide Action Network North America	California & National
PODER	Austin, TX
RISE for Environmental Justice	Missouri, Kansas, Midwest
Texas Environmental Justice Advocacy Services	Houston, Texas
Tishman Environment and Design Center at The New School	National
Until Justice Data Partners	National
Women's Voices for the Earth	National
WE ACT for Environmental Justice	New York and National