

Greenhouse Gas (GHG) emissions have adverse climate impacts that show up in varying ways for consumers, shaping how they interact with goods and their transportation needs, and contributing to extreme weather, which impacts overburdened communities most. In the United States, the biggest source of GHG emissions comes from the transportation sector.

Extreme weather, food supply disruptions, and increased wildfires are all effects of climate change caused by GHG. These impacts cost consumers billions in damage and increased insurance costs¹.

In order to reduce overall GHG emissions, we must use a variety of tools to help bring cleaner technologies to the market. One important tool in this effort is low carbon fuel (LCF) policies, which provide an increasing range of low carbon fuel alternatives. LCF policies can reduce GHG emissions in the transportation sector and limit their impacts on consumers and the environment.

WHY LOW CARBON FUEL POLICIES?

1 Transportation accounts for 27% of greenhouse gas (GHG) emissions in the United States. To address this, there should be a strategy to decarbonize transportation fuels by increasing consumers' options for affordable low GHG-emitting transportation fuels. This will be most effectively accomplished by steadily growing market opportunities for low carbon fuels with transparency, scale, and fair competition. Any such markets or programs must include safeguards to protect and enhance consumer benefits, and ensure equitable distribution of these benefits.

IMPLEMENTATION OF LCF POLICY

2 In 2020, emissions from light-duty vehicles represented the highest emissions from the transportation sector at 57%. In order to achieve emissions reductions at the scale needed to mitigate the impacts of climate change, LCF policies should be used as a tool to rapidly scale down emissions in the light-duty vehicle market.

3 In 2020, heavy-duty vehicles comprise 26% of total transportation GHG emissions while only comprising 11% of total vehicle miles traveled. LCF policies should therefore identify opportunities to ensure emissions reductions in these highest-emitting vehicle classes and fleets to maximize emissions benefits. LCF policies should also identify opportunities to reduce emissions in sectors that are hardest to electrify, such as aviation and maritime transportation.

These principles were crafted using elements from the policy principles of the DriveClean Initiative, [California](#) and [Oregon](#) Low Carbon Fuel Standards, and Low Carbon Fuel legislative proposals from [New Mexico](#) and [New York](#).

1. NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2022). <https://www.ncei.noaa.gov/access/billions/>

- 4 Any LCF policy should be technology-neutral and be able to account for future low carbon fuel technologies yet to reach the marketplace.
- 5 LCF policies should be complementary to, and not conflict with, other greenhouse gas and pollution reduction policies, goals and strategies.
- 6 It is critical that regulators take a transparent, uniform, and traceable approach to measuring the lifecycle emission performance of low carbon fuels. But this approach alone is not sufficient to get significant reductions in carbon intensity. There must be stringent standards contained in any LCF policy to achieve emissions reductions in the transportation sector. These standards must ensure the best possible technology is being used to support carbon intensity reduction, including with respect to lifecycle analysis and standardization of applicable verification and reporting.
- 7 States or regions should be able to implement their own low carbon fuels programs that are at least as stringent as any federal program and are designed to steadily decarbonize transportation fuels.
- 8 In addition to individual state efforts, the federal government and the states can and should make a sustained effort to expand the research, development and deployment of low and zero carbon fuels technologies and practices, including demonstration projects and technical assistance.

ADDRESSING EQUITY THROUGH LCF POLICIES

- 9 Any LCF policy must prioritize justice and equity by recognizing that those communities impacted most by transportation GHG emissions are low income and communities of color. To do so, policies should identify opportunities to invest a significant portion of credit revenues into overburdened communities to fund infrastructure projects to support the emergence of more LCFs.
- 10 In recognition that low-income communities spend disproportionately more of their income on transportation fuel, policymakers should work to ensure that any LCF policy does not significantly raise the cost of transportation fuel whether LCFs or traditional transportation fuels.

Footnotes:

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