CleanFuelsNYCoalition

WHAT IS A CLEAN FUEL STANDARD?

A clean fuel standard (CFS) is a proven, efficient and cost-effective way to reduce CO2 emissions and pollution from the transportation sector. A CFS effectively makes polluters pay for the development and deployment of cleaner fuels, including electricity, through a credit-trading system based on total life-cycle emissions.

Under a CFS, all fuels produced in or imported to a state are assessed on a carbon intensity (CI) scale that measures the full life-cycle emissions of each fuel, including extracting and refining oil, growing crops and producing biofuels, or generating electricity. Fuels more polluting than the standard generate deficits, and fuels cleaner than the standard generate credits. The pollution standard is reduced steadily each year, which creates a growing market for clean fuels. **A CFS was one of the recommendations in the Climate Action Council scoping plan that will help us more rapidly move off fossil fuels and decarbonize the transportation system.**

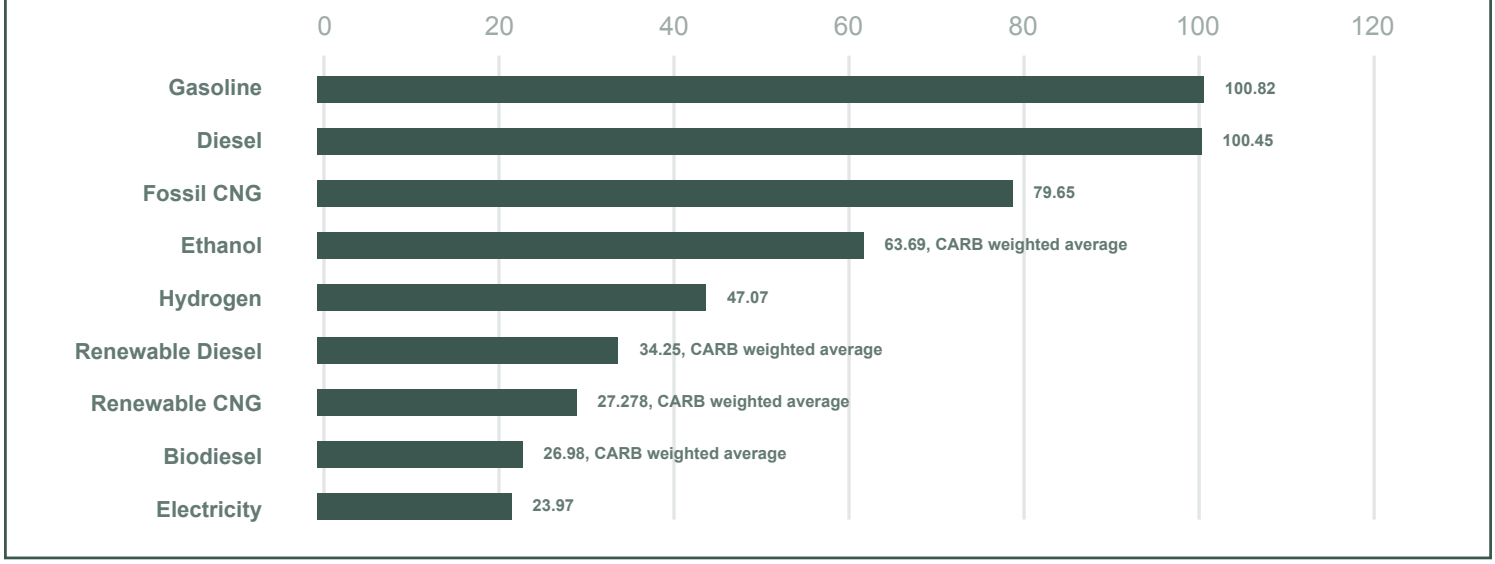
The CFS is NOT a tax. Resources generated by a CFS don't go to the State. They stay in the private market. Those fuels with a "CI" below the benchmark generate credits for the producer/ importer; the further below the benchmark their CI score, the more credits they generate. Very low/negative CI and highly efficient fuels like electricity generate the most credits, where fuels with a CI above the benchmark generate deficits, which must be matched with clean fuel credits.

HOW DO WE ESTABLISH A CARBON INTENSITY SCALE?

The relevant state agency – the Department of Environmental Conservation – would establish a benchmark for carbon intensity based on each energy source and its associated lifecycle emissions. CIs of fuels would then be determined by program administrators and annually certified by third-party verifiers.

Carbon Intensity Based On Each Energy Source (gCO_2e/MJ)

Based on data from the California Air Resources Board (CARB)



As an example, the graph above shows the weighted average scores of the predominant vehicle fuels used in California. Gasoline and diesel emit by far the most carbon emissions, while renewable biofuels and electricity are the lowest carbon and cleanest fuels.

Providers can:

- Blend lower CI biofuels into the gasoline they sell, or
- Buy credits from parties selling fuels below the standard, including EVs and fleets or retailers using or selling RNG, E85, biodiesel or renewable diesel.

The End Goal:
As higher-carbon fuels run deficits and lower carbon fuels earn credits, a funding mechanism for cleaner fuel options is put in place.

BENEFITS OF CLEAN TRANSPORTATION FUELS

Transportation is responsible for 36% of New York's global warming pollution. Almost all of these emissions come from:


Gasoline


Diesel


Other petroleum-based fuels[1]

Fortunately, New York has tremendous potential to move to a variety of clean fuels that can reduce the overall carbon intensity of the state's fuel supply. Scaling up the production and use of these clean fuels will benefit New York's drivers and economy in many ways.

Investing In Clean Fuels

The credits generated by low CI fuels will make it easier for transit agencies to move to electric buses, truck fleets and airlines to switch to low carbon biofuels, and could encourage ride-hailing companies to make EVs available to their drivers. A clean fuel standard would also help build technology innovation in the state. **By joining California, Oregon, Washington, and British Columbia in implementing a CFS, New York would help create a market for clean fuels and set an example for other states—and ultimately, our federal government—to follow.**

ENDING THE ERA OF PETROLEUM IS KEY TO A CLEAN ENERGY FUTURE

Transportation fuels have been dominated by petroleum for so long that people think "fueling up" is limited to gas stations. But electricity and biofuels are powering a growing number of vehicles on the road today.

Electricity

When running on electricity, EVs produce zero tailpipe emissions. The pollution from EVs is limited to the source(s) of electricity used to charge them. Since New York already has a relatively clean electricity grid (only 39% of power generation comes from fossil fuels), EVs are much less polluting than gasoline cars. As the state continues to invest in a clean energy grid, EVs become even cleaner.

Biofuels

While EVs present tremendous medium and long-term opportunities to decarbonize the transportation sector, New York's existing vehicle population is dominated by internal combustion engines and these vehicles have typical use expectancies of 10 to 15 years. **Biofuels present an opportunity to decarbonize these vehicles now, and also present long-term opportunities to decarbonize the sectors least feasible to electrification, including heavy-duty on-road vehicles and commercial aviation.** Modern biofuels blend with or replace existing petroleum- based fuels without the need for vehicle modification or sacrifices in performance.

New York is already producing and using significant quantities of biofuels, and is poised to produce much more.

PUBLIC HEALTH

Petroleum-based fuels in transportation are not only the highest carbon emitters, they also emit three common pollutants associated with a wide range of negative health impacts:


Particulate Matter


Nitrogen Oxides


Ozone

Exposure to elevated levels of these three pollutants leads to emergency room visits, hospital admissions and premature death. The highest levels of air pollution are found in urban areas, particularly in low-income neighborhoods that are near highways or that have high levels of heavy-duty truck traffic. In New York City, exposure to particulate matter (and by extension other pollutants, see below) is higher for Asian- and African-Americans, Latinos and "other races" than it is for whites.[2] For example, the rate of asthma among children under 18 in the South Bronx is 13.3% – almost twice the national average.

A study conducted by the Environmental Defense Fund and American Lung Association in California found that communities could expect significant cumulative benefits from the CFS and other cap and trade regulations in the state, including:

- **Savings of $8.3 billion** in pollution-related health costs
- **Prevention of 600 heart attacks and 880 premature deaths** caused by air pollution
- **Prevention of 38,000 asthma attacks** and almost 75,000 lost workdays
- **Reduction of criteria pollutant emissions** by almost 180,000 tons

1) https://www.nyserda.ny.gov/-/media/Files/EDPPP/Energy-Prices/Energy-Statistics/greenhouse-gas-inventory.pdf

2) Union of Concerned Scientists, op. cit.