

July 1, 2022

**Draft Scoping Plan Comments**
**NYSERDA**
**17 Columbia Circle**
**Albany, NY 12203-6399**

Re: Clean Fuels NY Coalition Comments in Support of Including a Clean Fuel Standard in New York’s Scoping Plan

To whom it may concern:

**The Clean Fuels NY Coalition applauds the Climate Action Council for including a Clean Fuel Standard (CFS) in the draft scoping plan, and we write to strongly urge you to include the CFS in the State’s final Scoping Plan later this year.** The transportation sector is the second-largest source of greenhouse gas emissions in New York State. With a Clean Fuel Standard, New York can build a market to aid the transition to clean fuels, reduce reliance on fossil fuels, improve public health, and help the state reach its climate goals without additional state tax funding.

A CFS is a technology-neutral, performance-based approach to decarbonizing the entire transportation sector, which will help enable New York to meet its aggressive climate goals. Currently, New York remains more than 95% dependent on petroleum in transportation, consuming 6.78 billion gallons of diesel and gasoline in 2019. We need to adopt policies that will speed up our transition to electric vehicles and clean fuels in a manner that will decarbonize the entire transportation sector, including both highway and offroad vehicles and engines.

**Our coalition is united in our commitment to decarbonization, regardless of the fuel or technology used by any individual owner or operator. This approach to decarbonization makes the most sense, given that, under even the most ambitious electrification scenario, roughly one-third of the transportation energy consumed in 2050 will still come from fossil fuels.**

In addition, meeting our near-term 2030 goals will require replacing the fossil fuels we currently use with low-carbon, renewable drop-in replacement fuels as much as possible. Indeed, according to the Department of Environmental Conservation’s integration analysis, without looking at other options, it would take EV market penetration reaching 98% of new sales for light duty vehicles and 40% for medium and heavy-duty vehicles in only eight years for New York to meet its goal of reducing emissions 40% by 2030. Since such a rapid transition will be difficult, we will need to accelerate our use of low-carbon, clean and renewable fuels at scale this decade – while we are accelerating all of the requisite vehicle, charging, transmission, and grid investments to enable the ZEV market that will be needed to meet our 2050 goals.

**That is why we strongly believe that we need to rely on a balanced set of proven technologies to avoid relying on fossil fuels for transportation for at least the next 25 years. A Clean Fuel Standard will both accelerate electrification and promote rapid growth in low carbon, renewable liquid and gaseous fuels.** It will help cover the operating costs of fleets making the switch to electric and will incentivize and accelerate the transition to liquid and gaseous clean fuels, especially for hard to electrify sectors. In addition to the emissions reductions available through electrification, substituting low-carbon, renewable fuels will help to offset fossil fuel use and reduce harmful pollutants for combustion engine vehicles that will remain on the road for decades to come.

Clean fuels are especially important for hard to electrify sectors. Non-road fuels (including aviation) are 12% of total transportation emissions in New York. Other transportation emissions policies, like the Clean Cars Rule and the Clean Truck Rule, will not help to decarbonize these sectors. To transition off fossil fuels, we will need investments in biofuels and green hydrogen. A clean fuel standard will help to accelerate this transition.

Critically, a Clean Fuel Standard will provide a strong incentive that will mobilize private sector investment and innovation in developing new technologies, purchasing new zero and near-zero emission vehicles and using alternative fuels. Further, a Clean Fuel Standard should spur national and international companies that have made climate commitments to make those changes in New York, rather than in states that do not provide the Clean Fuel Standard’s incentives. And, as California has shown with its combination of a Low Carbon Fuel Standard and the Advanced Clean Truck Rule, adopting a Clean Fuel Standard in New York will also make it less costly to comply with New York’s Advanced Clean Truck Rule.

In addition, there are opportunities in how a Clean Fuel Standard is structured that can assure investments are made to reduce emissions in disadvantaged communities while maintaining the advantages of using market mechanisms. the Clean Fuels NY Coalition strongly supports including provisions that would direct at least 40% of the credits generated by government/quasi-governmental entities towards transit, school bus, charging infrastructure, and other ZEV-related investments in these communities. This provision was included in the most recent legislative proposal for a CFS (A.862B; S.2692B).

Finally, based on the price of credits in California and the volume of fossil fuels used in New York, we project that the state could see $1-$1.4 billion in clean fuels credits annually, which would stay within the transportation sector and would not be at risk of being diverted for other budgetary purposes.

Over the past two years, a significant body of research has shown that a Clean Fuel Standard will provide significant climate, clean air, jobs, economic development and other benefits to New York, and that a future CFS can be implemented in ways that will provide critically needed benefits in the State’s low-income communities of color and other under-served or disadvantaged communities.

The remainder of this comment letter summarizes this research.

1. Cerulogy, *New York’s Clean Fuel Future*, January 2021

In January 2021, Cerulogy published a study outlining the feasibility and benefits of a Low Carbon Fuel Standard (LCFS) in New York. Using the California Low-Carbon Fuel Standard (LCFS) and other successful LCFS or CFS programs as guideposts, Cerulogy modeled two scenarios in which a 20% carbon intensity (CI) reduction for New York on-road transportation could be met by 2030.

The full report is attached as Appendix 1. Some of the report’s key findings are as follows:

* For more than ten years, the California Low Carbon Fuel Standard (LCFS) has been one of the most successful climate policies in the state and has delivered significant reductions in transportation emissions through the use of low carbon fuels and zero emission vehicles.
* The report demonstrated two different CFS scenarios that would yield a 20% carbon intensity (CI) reduction in overall on-road transportation energy supply by 2030. Both scenarios model a significant reduction in CI through transportation electrification, and both result in net benefits of $3.1 – $7.9 billion.
	+ The “balanced” scenario creates CI reductions through the use of electrification as well as alternative low carbon fuels, such as renewable natural gas, renewable diesel, ethanol, hydrogen, and others. This scenario has the potential to help consumers save nearly $1.4 billion in fueling costs from 2020 to 2030.
	+ The “high ZEV” scenario relies on the rapid deployment of electric vehicles for light-, medium-, and heavy-duty vehicles, resulting in a reduced need for alternative low-carbon fuels. The high ZEV scenario has the potential to help consumers save $2.5 billion in fueling costs from 2020 to 2030.
* According to the report, “by 2030, NY-LCFS credits for electric vehicle charging in the balanced scenario could deliver $900 million of revenue to support electric vehicle deployment and charging infrastructure.”
	+ If New York adopts an LCFS similar to California’s program, hundreds of millions of dollars of this revenue could support electrification in over-burdened and disadvantaged communities in New York.
* The report finds that a New York CFS would reduce particulate matter (PM) and NOx emissions as a result of increased use of electricity and alternative fuels. Because over-burdened and disadvantaged communities currently bear the brunt of the State’s dirty diesel pollution and related health costs, cleaning up these vehicles will logically lead to a disproportionate benefit in these communities as well. The report found that New Yorkers can collectively save $800 million – $1 billion in health care costs as a result of the PM and NOx benefits of a CFS.
1. Scioto Analysis, “Economic and Health Impacts of a Clean Fuel Standard for New York,” May 2022.

The full report is attached as Appendix 2 and Appendix 2A. This study analyzed economic, national security, and health implications of a CFS to quantify the costs and benefits of adopting a CFS in New York. Some of the key findings of this report are as follows:

* Economic Impacts:
	+ **Quick start projects inspired by a state CFS could create 9,200 jobs, equating to $2.6 billion in wage income and $1.3 billion in investments by 2030**.
	+ The credit market created by California’s technology-neutral clean fuel standard has demonstrably supported development of, and substantial investments in, diverse low-carbon transportation fuels.
	+ By incentivizing the diversification of transportation fuels and reducing reliance on petroleum, a clean fuel standard creates more stability in fuel prices while improving energy security.
* **A 20% carbon intensity reduction CFS policy could reduce oil consumption in New York by 8-25 million barrels annually by 2030, worth between $850 million to $5.1 billion in benefits.**
* Environmental and Public Health Impacts:
	+ **Projections based on the California LCFS estimate that a CFS in New York could reduce carbon emissions by 13-20 million metric tons annually, equating economic benefits between $16-24 million, based on DEC’s $125 social cost of carbon.**
	+ Reducing the carbon intensity of transportation fuels also reduces local air pollutants like NOx and PM2.5. Abating these pollutants through a clean fuel standard could **save the lives of 24-43 New York residents each year**.
	+ A CFS would promote environmental justice in New York by reducing the NOx and PM2.5 pollutants for vulnerable demographics in the state that are currently disproportionately affected by pollution-related health impacts.
	+ A CFS in New York could create $14-31 billion in total net social benefits through 2050, with ***cumulative benefits likely outweighing cumulative costs in four years or less*** following its adoption.
1. Bates-White, *Low Carbon Fuels Standard Market Impacts and Evidence for Retail Fuel Price Effects,* April, 2022

The full report is attached as Appendix 3. This study analyzed impacts of the California LCFS on retail gasoline prices in the state. Some of the key findings of this report are as follows:

* **Retail gasoline prices in California are not statistically correlated with LCFS credit prices.**
	+ State taxes, Cap-and-Trade program costs, and crude oil prices account for 90% of state retail gas prices, with crude oil alone explaining 70% of price variations.
	+ Crude oil prices, and in turn retail petroleum-based fuel prices, are driven by the global petroleum market, highlighted by the increase to more than $100 per barrel following Russia’s invasion of Ukraine.
	+ State-specific conditions like higher taxes, Cap-and-Trade, market isolation, and CaRFG fuel blend specifications drive the relatively higher prices in the California market – these higher prices are not associated with the LCFS.
* **The LCFS has resulted in the availability of lower-priced low-carbon fuels as market alternatives to petroleum-based fuels, providing cost savings to consumers.**
	+ Renewable diesel and E85 are currently cheaper than petroleum diesel and gasoline and have been for a majority of the past 5 years.
	+ Even accounting for the relatively reduced energy content of E85, E85 is still economically advantageous for consumers, generally offering a discount of $1 or more per gallon compared to gasoline.
* The diversity of fuels and increased aggregate low-carbon fuel supply induced by the LCFS reduces compliance costs and price impacts, and creates fuel market competition**.**
* Looking ahead, the expected expansion of renewable diesel from proposed and announced production projects in California is expected to lead to increased renewable diesel availability by 2024.
* Expected growth in the electric vehicle (EV) market in California will increase demand for electricity with low CI as a transportation fuel, which will help meet LCFS targets and drive down credit prices.
1. SUNY/ESF Study, *A Review of the Scientific Literature on Greenhouse Gas and Co-Pollutant Emissions from Waste- and Coproduct-Derived Biomass-Based Diesel and Renewable Natural Gas, January 2022*

On January 27, 2022, the State University of New York College of Environmental Science and Forestry released a whitepaper detailing how biomass-based diesel (BBD) and renewable natural gas (RNG) can provide significant reductions in greenhouse gas (GHG) emissions, which will help New York meet its climate and health goals.

The full report is attached as Appendix 4. Some of the report’s key findings are as follows:

* Both the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have identified biomass-based diesel and renewable natural gas as acceptable alternative biofuels that can displace the use of petroleum-based fuels and achieve reductions in GHG emissions.
* In the United States, BBD is primarily consumed as either biodiesel or renewable diesel. While the two fuels have similar characteristics in terms of climate and health impacts, there are important differences.
	+ According to the report, “Biodiesel is most commonly a fatty acid methyl ester (FAME) that is produced by reacting a lipid feedstock such as used cooking oil with methanol. Biodiesel is not a hydrocarbon fuel, but is widely used for transportation and building heat applications in blends of up to 20% with ultra-low sulfur diesel (ULSD). Biodiesel is frequently produced from waste/residue vegetable oil feedstocks such as distillers corn oil and used cooking oil.” (pg. 7)
	+ Renewable diesel is also produced using lipid feedstocks. Renewable diesel producers tend to favor waste/reside feedstocks that contain a high saturated fat content, a component that is found in animal processing waste, or tallow. One of the key factors that differentiates renewable diesel from biodiesel is the use of hydrogen for the purposes of reacting with the feedstock. This results in a drop-in hydrocarbon fuel that meets ASTM D975 specifications.
* The carbon intensities (CI) of BBD and RNG is considerably lower than the petroleum-based fuels they replace, regardless of feedstocks.
	+ The CI of BBD from feedstocks such as tallow and used cooking oil are approximately 66-81% lower than conventional diesel. CI scores from BBDs range from a minimum of 19.04 g CO2eq/MJ (biodiesel from used cooking oil) to a high of 32.37 g CO2eq/MJ (renewable diesel from tallow). In contrast, the CI scores of ULSD range from 94.4-100.85 g CO2eq/MJ.
	+ RNG produced from landfill gas has a CI range of 48.01-64.37 g CO2eq/MJ, or 30-44% lower than its fossil fuel counterpart. Furthermore, RNG that utilizes feedstock from swine manure can actually be carbon-negative, ranging from -332.21 to -387.43 g CO2eq/MJ.
* BBD and RNG can also reduce co-pollutant emissions, thereby improving human health in the many low-income communities of color and other disadvantaged communities throughout the State that suffer from disproportionately high levels of dirty diesel pollution today.
	+ The literature review found that, “compared to the use of ULSD, B100 combustion in one study resulted in reductions of between 47% (particulate matter) and 100% (SO2).”
	+ It is worth noting that, in addition to the co-benefits identified by this report, near-zero emission engines powered by RNG have been certified by CARB to reduce NOx to levels that are 90% below the current EPA and CARB standards.
* The findings of this report demonstrate that BBD and RNG can make significant contributions to New York State’s climate and public health goals, and thus it is imperative that policymakers incentivize conditions in which the use of biofuels can make the largest contributions to GHG reductions in the transportation sector.

In addition to the research and analyses provided herein, we attach case studies that document the positive experience of several Clean Fuel NY Coalition members that use low-carbon fuels, electric vehicles, or other low-carbon technologies and that support the adoption of a CFS in New York. Appendix 5 documents the experiences of Clean Energy, Lyft, Manhattan Beer Distributors, Natural Upcycling, NYC Department of Citywide Administrative Services, Neste, and Western New York Energy, respectively

In sum, meeting our near-term 2030 goals will require replacing the fossil fuels we currently use with low-carbon, renewable drop-in replacement fuels and scaling up new ZEV vehicle sales, especially in the passenger vehicle, school bus, and transit bus markets as much as possible, while also laying the groundwork with charging and other infrastructure investments that will enable the ZEV market to scale up to meet our longer-term 2050 goals. There is no scenario (including DEC’s own integration analysis) that does not require each of these steps to be taken, if New York is to meet its climate and clean air goals. As we have shown in the research and case studies included herein, implementing a Clean Fuel Standard will enable the State to move forward with each of these goals, in ways that will create thousands of jobs and billions of dollars of new economic development, direct unprecedented levels of investment in zero-emission vehicles and charging infrastructure and low-carbon, renewable fuels towards low-income communities of color and other under-served or disadvantaged communities, eliminate millions of barrels of oil, reduce air pollution, and improve human health – yielding billions of dollars of net benefit to New York.

For all of the foregoing reasons, the Clean Fuel NY Coalition strongly urges the Council to include a Clean Fuel Standard in its final Scoping Plan.

Thank you for the opportunity to comment.