Growth Energy™
Expanding America's Bioeconomy

August 2, 2024

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Submitted via NMED online portal

Ms. Borchert,

Thank you for the opportunity to provide written comments in response to the New Mexico Environment Department (NMED) Clean Transportation Fuel Standard's (CTFS) Advisory Committee and its technical report. Growth Energy is the world's largest association of biofuel producers, representing 97 U.S. plants that each year produce more than 9.5 billion gallons of renewable fuel; 119 businesses associated with the production process; and tens of thousands of biofuel supporters around the country. Together, we are working to bring better and more affordable choices at the fuel pump to consumers, improve air quality, and protect the environment for future generations. We remain committed to helping our country diversify our energy portfolio in order to grow more green energy jobs, decarbonize our nation's energy mix, sustain family farms, and drive down the costs of transportation fuels for consumers.

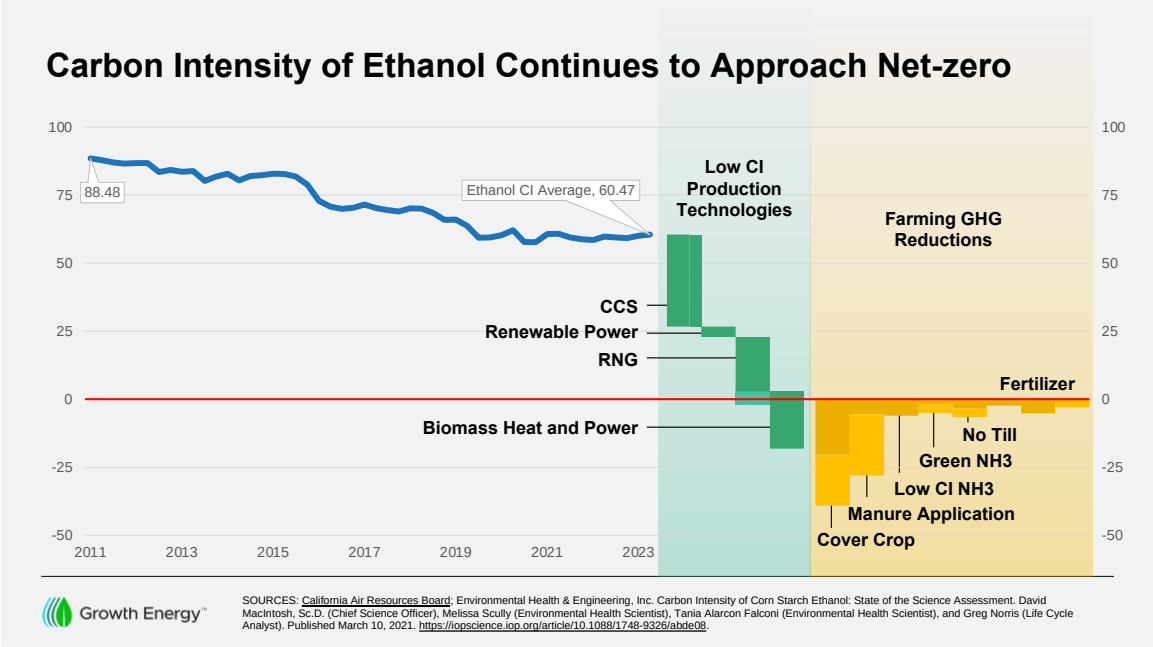
We applaud New Mexico's efforts to reduce carbon emissions through the CTFS. Growth Energy has previously provided extensive comments on similar programs in California, Washington, and Oregon, ensuring those states recognize the carbon reduction value of increased bioethanol use. In California, biofuels have been among the largest contributors to the success of the LCFS program to date and are poised to continue to do so with appropriate updates to the program.[1] Additionally, as mentioned in the June 28 Advisory Committee meeting, bioethanol has been a significant credit generator in the Oregon and Washington programs.[2] Like those states, we believe the CTFS has the opportunity to utilize biofuels as a means of immediate greenhouse gas (GHG) reduction in the current light-duty vehicle fleet as future technologies are further developed.

[1] https://www.transportationenergy.org/wp-content/uploads/2023/07/Decarbonizing-Combustion-Vehicles_FINAL.pdf
[2] https://cloud.env.nm.gov/resources/_translator.php/OWEwYTlmZjgwMjk2NWEyMTYwZTcxOWI4ZF8xNjE0NDg~.pdf

Environmental and Economic Value of Bioethanol

According to recent data from Environmental Health and Engineering, today's bioethanol reduces GHG by nearly 50 percent compared to gasoline and can provide even further GHG reductions with additional readily available technologies.[3]

The potential for fuels with higher blends of ethanol to reduce GHGs are further illustrated in a national analysis showing more than 146,000 tons in GHG reduction in New Mexico alone if E10 gasoline was replaced with E15.[4] This is the GHG reduction equivalent of removing 32,000 vehicles from New Mexico's fleet just by using a higher ethanol-blend fuel.



Bioethanol's other environmental benefits are also noteworthy. As has been researched by the University of California, Riverside and the University of Illinois at Chicago, the use of more bioethanol and bioethanol-blended fuel reduces harmful particulates and air toxics such as carbon monoxide, and benzene.[5]

Use of GREET for Life Cycle Analysis Modeling

We believe the Argonne National Laboratory's GREET model is the most accurate tool to examine the life-cycle greenhouse gas emissions of all fuels and considers a wide range of carbon reduction processes and technologies that bioethanol production can utilize. It is the gold standard for measuring the emissions-reducing power of farm-based

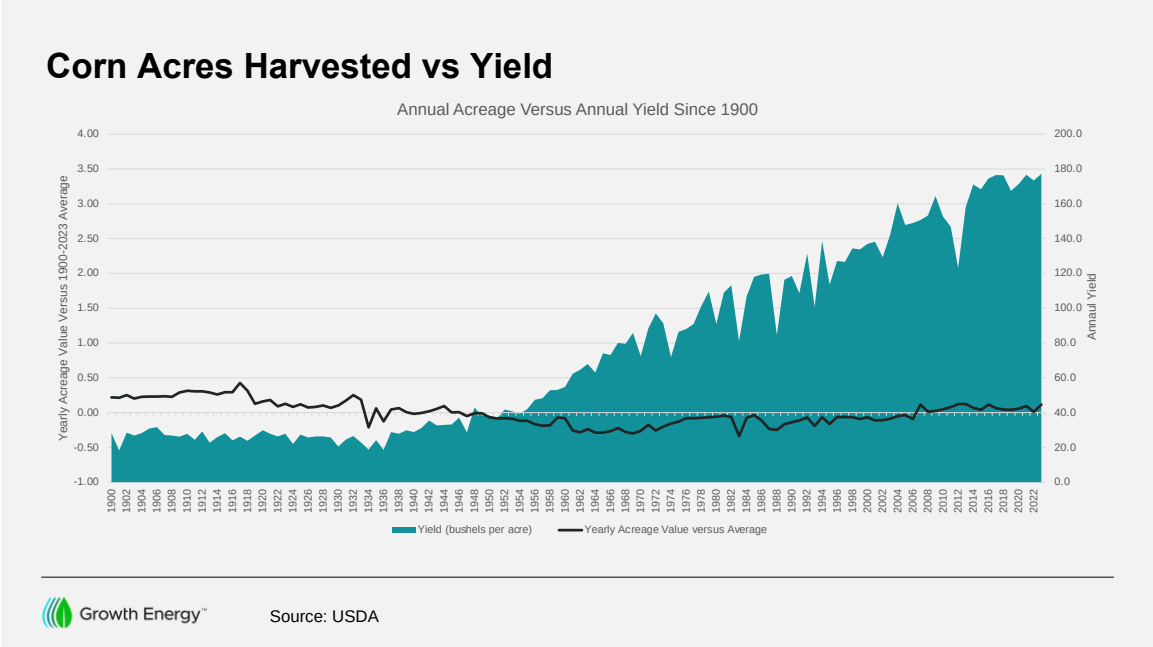
[3] https://iopscience.iop.org/article/10.1088/1748-9326/abde08/pdf
[4] http://www.airimprovement.com/reports/national-e15-analysis-final.pdf
[5] Comparison of Exhaust Emissions Between E10 CaRFG and Splash Blended E15, https://fixourfuel.com/wp-content/uploads/2018/04/UC-Riverside-Study.pdf

feedstocks and biofuels. It incorporates up-to-date science that more accurately scores lifecycle carbon intensity (CI) for corn ethanol and other renewable fuels.

Reject Caps and Sustainability "Guardrails" on Biofuels

As several members of the CTFS Advisory Committee noted in presentations and we reiterated above, biofuels have been a major driver of GHG reductions in existing fuel standard programs. They have been able to be so despite onerous, and we believe unnecessary, land use change (LUC) penalties for cornstarch bioethanol of varying values, including 19.8 gCO2e/MJ in California's Low Carbon Fuel Standard. This penalty was designed to mitigate alleged land use change with respect to cornstarch ethanol's production. We believe these scores to be outdated and not based on the most up to date research. A review of more recent science indicates a decreasing trend in land use values with the newer data indicating values closer to 4 gCO2e/MJ.[6]

Concerns over land use change for cornstarch ethanol are unfounded. The United States is planting grain corn on roughly the same number of acres as it was in 1900. At the same time, the per acre yield has increased more than 600%.[7,8] Capping the use of bioethanol in the CTFS or adopting a sustainability framework similar to what has been proposed by the California Air Resources Board would create an unfair double penalty on cornstarch ethanol in addition to violating the New Mexico legislature's directive for technology neutrality in the program.



[6] https://iopscience.iop.org/article/10.1088/1748-9326/abde08/pdf
[7] https://www.nass.usda.gov/Publications/Todays_Reports/reports/croptr19.pdf
[8] https://www.nass.usda.gov/Charts_and_Maps/Field_Crops/cornac.php

Expanding E15 and Higher Blends

Emissions reductions through the use of E15 also come with meaningful consumer cost-savings. During the summer of 2023, E15 was sold at 15 cents less per gallon where available on average nationwide. In some locations, we saw E15 selling consistently for as much as 60 cents less per gallon than E10.

Consumers have embraced E15's reputation as a more environmentally beneficial, more affordable fuel. Since the US EPA approved E15 in 2011, at which time there were *zero* retailers offering it, its availability rapidly expanded to what is now more than 3,400 retail sites in 32 states. Since then, drivers in America have relied on E15 to drive 100 billion miles.[9]

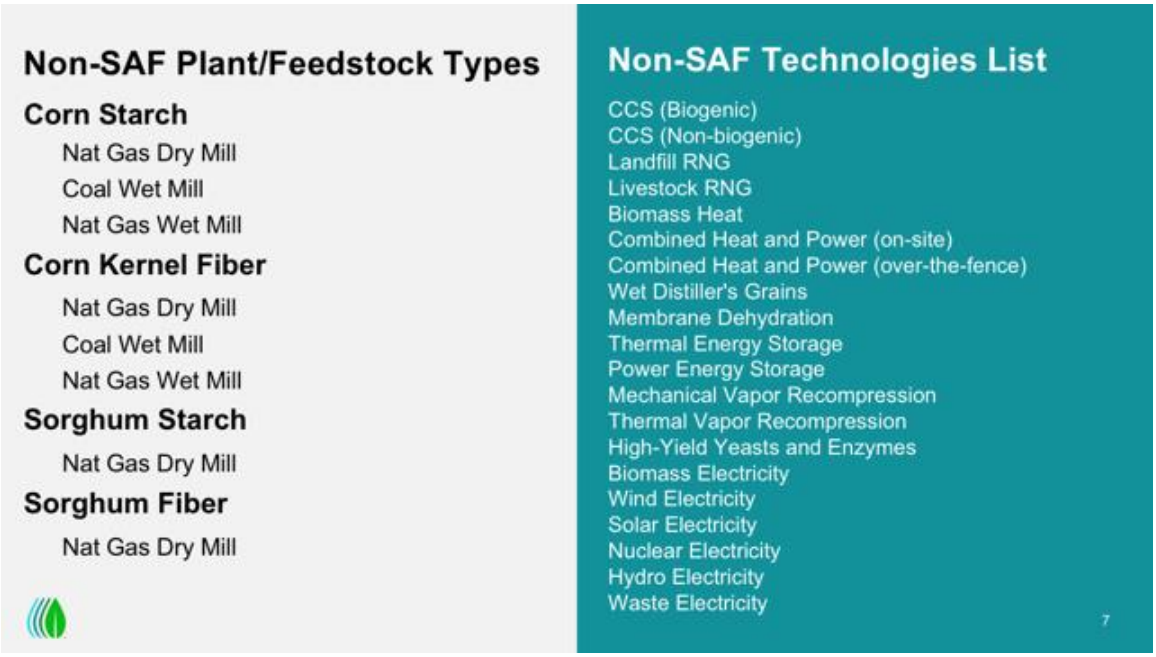
Recognizing Carbon Capture and Other CI Reduction Methods

Bioethanol producers constantly make improvements to their production process, increasing economic efficiency and more importantly, reducing CI. Among the newest tools bioethanol producers are utilizing to reducing CI is carbon capture utilization and sequestration (CCUS). Recently, California adjusted their modeling to account for CCUS, recognizing its importance in carbon reduction. By accounting for CCUS, the pathway CI for E85—approved for use in California—was updated such that it reduces the assumed CI score for ethanol from 66 gCO2e/MJ to 35 gCO2e/MJ.[10] We urge NMED to also recognize the CI reductions CCUS provides to biofuels pathways.

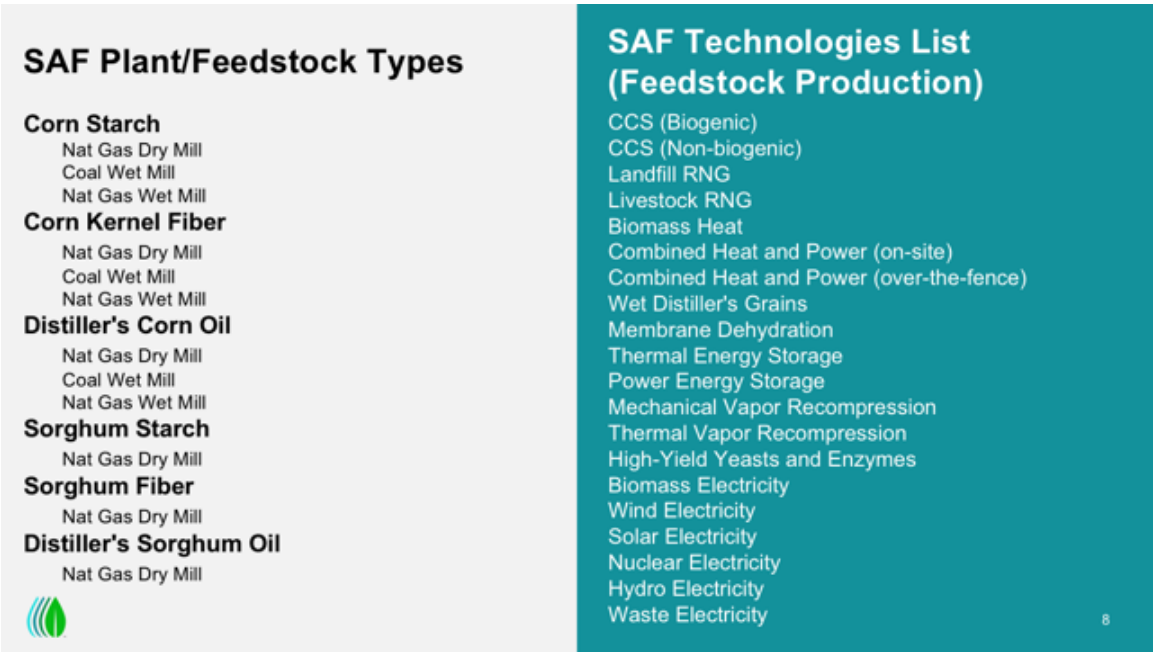
[9] https://growthenergy.org/2024/01/29/100-billion-miles-e15-growth-energy/
[10] https://ww2.arb.ca.gov/sites/default/files/2023-08/CATS%20Technical_1.pdf

Additionally, we have recently advocated for expanded crediting for low-CI power sourcing in California's LCFS, Currently, the ability to credit low-CI power in a pathway is limited to specific fuel pathways. While CARB is considering expanding crediting ability to hydrogen-as-fuel pathways, we believe the ability to credit *new* low-CI power sourcing—power not included in a utility's preexisting capacity—through power purchase agreements should be available to all feedstocks and pathways. With bioethanol production occurring entirely outside of New Mexico, the state has an opportunity to become a national leader by encouraging, via the CTFS, the adoption of low-CI power for bioethanol producers in other jurisdictions. We encourage NMED to consider the ability of all fuel pathways to credit low-CI power sourcing in their CI score.

On-farm carbon reduction practices, commonly called climate-smart agriculture (CSA), should also be credited in the CTFS. With the use of the GREET model, including the model's Feedstock Carbon Intensity Calculator, along with the USDA's database of CSA practices, the carbon reduction values can easily be quantified and verified.[11] Among these practices are the use of cover crops, low or no-till farming, precision fertilizer application, and the use of enhanced efficiency fertilizer.



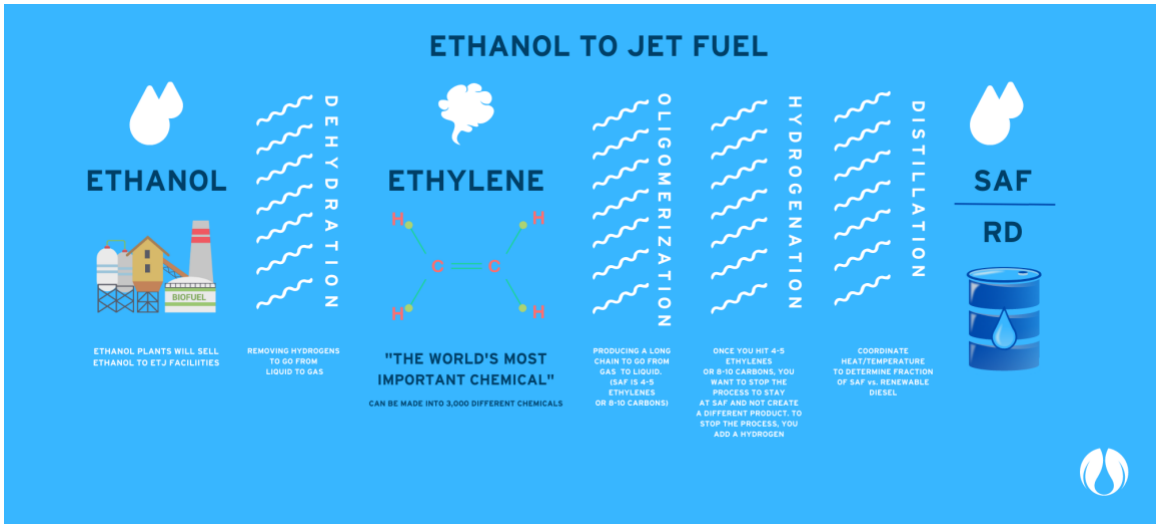
[11] https://www.nrcs.usda.gov/sites/default/files/2023-10/NRCS-CSAF-Mitigation-Activities-List.pdf



Bioethanol producers have a wide variety of tools at our disposal to reduce our product's carbon intensity. We strongly urge NMED to consider maximizing the opportunities for bioethanol producers to lower the CI for bioethanol pathways.

<u>Sustainable Aviation Fuel (SAF)</u>

As producers of one of the most scalable feedstocks for SAF production, we appreciate NMED's attention to development of this key market. We encourage NMED to work with SAF producers, biofuel feedstock producers, and airlines to seek ways to accelerate use of these important fuels to help decarbonize the aviation sector.



Thank you for the opportunity to provide input on the CTFS Advisory Committee's technical report. The CTFS will be a critical tool in New Mexico's decarbonization efforts, and we look forward to working with NMED to ensure the role of biofuels in making New Mexico's fuel mix more sustainable and help the state achieve its progressive climate goals through the expanded use of bioethanol. Additionally, we are happy to make ourselves available for any questions NMED may have.

Sincerely,

Chris Bliley
Senior Vice President of Regulatory Affairs
Growth Energy