### **Comment 1 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Paul Last Name: Smolen Email Address: paul.smolen@agrinetworks.com Affiliation: Agri Networks Management

Subject: Comments on Presentation Pages 39 and 40. Comment:

With regard to the chart appearing on page 39 of presentation to LCFS workshop today.

• The axis label states "million acres of soybeans crushed annually". This is misleading. 87.5 mln acres relates to production of the entire 4,276 mln bu soybean crop.

. USDA is estimating soybeans crushed at 2,245 mln bu., or 52.5% of the soybean production. The balance 1,990 mln bu is forecast to be exported as whole soybeans. Of the soybean oil produced from crush in 2022, approximately 55% is used in foods and 45% is used in biofuels.

• If the chart is intended to relate to soybean utilization in 2022, the total harvest from 87.5 mln acres can be divided into 41.5 mln acres of soybeans for export, 25.3 mln acres for soybean oil for food uses, and 20.7 mln acres for soybean oil for biofuels.

• The projected 600 to 700 mln bu/yr increase in soybean crush capacity (referenced on page 40), will draw primarily from the export residual of soybeans without requiring additional production. US does not have to grow more to crush more. The increase in capacity would raise crush to 67% if production is the same.

• Further increases in U.S. soybean crush would be constrained to avoid over production of soybean meal for domestic and export consumption.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2023-02-22 12:19:33

## **Comment 2 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Patrick Last Name: Wood Email Address: patrick@agmethaneadvisors.com Affiliation: Ag Methane Advisors

Subject: Comments on 2.22.23 wksp Comment:

Please find my comments attached. Thank you!

Attachment: www.arb.ca.gov/lists/com-attach/3-lcfs-wkshp-feb23-ws-AmNVNFQ4AzULeQVt.pdf

Original File Name: AgMethane\_Comments Re Feb 23 LCFS potential changes wksp\_2.22.23.pdf

Date and Time Comment Was Submitted: 2023-02-22 14:16:13

### **Comment 3 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Daisy Last Name: Laurino Email Address: daisy.laurino@dot.ca.gov Affiliation: Caltrans

Subject: LCFS Workshop - alternative sources of biomass and methane Comment:

Hi - Comment in response to slide 41.

Slide 39 states an increase of soybean production from 35 to 98 million acres in 2025 and this will increase going forward to achieve goals. These increases in farmland will also increase GHG emissions and need for water. Slide 11 shows a fast increase of renewable diesel volumes, plus existing alternative fuels using biomass.

Due to the amendment to Order 2449 requiring renewable diesel for prime contractors, Caltrans studied producers of renewable diesel and observed that feedstock prices affects decision to produce. https://www.reuters.com/business/energy/cvr-pauses-renewable-diesel-plans-feedstock-pricessurge-2021-08-03/

Therefore, 3 concerns - increase of water requirements in a drought ridden CA, consumers facing higher food prices and producers affected by high feedstock prices. Slide 41 - reflects these are also CARB's concerns.

What about CARB connecting LCFS' program with recycling instead?
Instead of virgin biomass, how about recycled biomass from restaurants, schools, etc. example Crimson Renewable Energy https://www.turnto23.com/news/local-news/crimson-renewable-energy-opens-new-facility-insouthwest-bakersfield
Find an alternative source for methane like CALRecycle or disposal sites for plastics as source of CH4? or other wastes?

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2023-02-22 14:16:55

## **Comment 4 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Dion Last Name: Lobreau Email Address: Dion@mazamaenergy.com Affiliation:

Subject: IRA Clean Fuel credit and the existing LCFS Credits Comment:

I am reviewing a Green H2 project and wondering if the IRA Clean Fuel credit can be incorporated with the LCFS Credits that the project would create? Thank-you

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2023-02-22 21:16:14

### **Comment 5 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Randy Last Name: Hull Email Address: rhull@innosepra.com Affiliation: Chief Commercial Advisor @ Innosepra

Subject: High CI factor threshold for liquid hydrogen not aligned with IRA Comment:

The threshold CI factor as reported in the Feb 22 workshop for gaseous H2 roughly equates to the maximum level of CO2 allowed to obtain a "Clean Hydrogen Production Tax Credit." That is at a maximum CI of 55 gCO2e/MJ H2, above which no LCFS credits are allowed, roughly equates to the Inflation Reduction Act of 2022 threhold of 4 kg CO2e/kg H2 when adjusted by the EER factor for FCEV engines.

Allowing liquid hydrogen ("LH2") a maximum CI of 95 gCO2e/MJ makes no sense whatsoever and that CI is really not materially different than CNG. Gaseous H2 is the precursor for production of both high-pressure gaseous H2 as well as liquid hydrogen. While the capital cost differences are significant between the two approaches, the energy inputs are not that different: 3-5 kwh/kg for UHP gaseous H2 vs 12-13 kwh/kg for LH2 production and fueling station recompression. The maximum CI limit for hydrogen should be the same no matter the mode of production and supply.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2023-02-23 08:00:14

### **Comment 6 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Randy Last Name: Hull Email Address: rhull@innosepra.com Affiliation: Chief Commercial Advisor @ Innosepra

Subject: New Tier 1 Simplified CI-calculator for Hydrogen Comment:

The new CI-calculator for hydrogen should include the option for carbon capture and sequestration (CCS) under the SMR pathway. CCS has the potential to significantly reduce CO2 emissions to the atmosphere. In addition, CCS for biomethane processing and procurement is expected to be prioritized under SB 1440.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2023-02-23 08:00:14

### **Comment 7 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Evan Last Name: Edgar Email Address: evan@edgarinc.org Affiliation:

Subject: ZEV are not Zero Emissions but are plus 62.52 to 90.64 Comment:

CARB:

The LCFS is for transportation fuels where lifecycle analysis are conducted. ZEVs using electricity and a battery to be charged needs to have a lifecycle analysis conducted as part of the LCFS. The attached study conducted by Edgar & Associates based upon several credible European Studies and submitted to CARB on March 24, 2022 is attached.

We have asked to meet with CARB staff on this. It's been 11 months and request a meeting with CARB LCFS staff.

Attachment: www.arb.ca.gov/lists/com-attach/8-lcfs-wkshp-feb23-ws-BWkFagFmAzUDWgRn.pdf

Original File Name: Life Cycle Impacts of Zero Emission Vehicles Manufacturing 3.23.22.pdf

Date and Time Comment Was Submitted: 2023-02-24 16:31:21

### **Comment 8 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Evan Last Name: Edgar Email Address: evan@edgarinc.org Affiliation:

Subject: ZEV Battery Supply Chain Due Diligence Comment:

The EU Battery Directive (2006/66/EC), adopted in March 2022, regulates the manufacturing and disposal of batteries and accumulators in the European Union to protect human health and the environment from hazardous substances such as mercury and cadmium. With \$9 billion being invested in the Governor's budget in zero emission vehicles (ZEV) technology deployment, without any conditions regarding sourcing the Earth's rare minerals from corrupt countries with severe human rights abuses and flagrant environmental destruction. CARB needs to adopt a California Battery Directive (See Attachment A) following the EU Battery Directive to compliment the recently adopted Scoping Plan Update 2022 that accelerates the electrification of the transportation sector with few conditions other than not exacerbating harm to disproportionately impacted communities. Mining rare earth minerals from around the world is severely exacerbating harm disproportionately on impacted communities

Attachment: www.arb.ca.gov/lists/com-attach/9-lcfs-wkshp-feb23-ws-VCddLlAhU3BVPwN6.pdf

Original File Name: Supply Chain Due Diligence ZEV Battery.pdf

Date and Time Comment Was Submitted: 2023-03-01 18:22:47

### **Comment 9 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Dustin Last Name: Dodds Email Address: ddodds@selectionlink.com Affiliation:

Subject: LCFS - Proposed Changes Comment:

Thank you for your work on LCFS. We are thrilled to see this continuing to bring down our carbon footprint. Could you please explain and provide data on how the staff produced the proposed changes to LCFS which appear to favor Electric and Hydrogen over vehicles powered by sources such as CNG, RNG/Biomethane? After reading the attached report (please review), it appears that when you consider the bigger picture, Electric and Hydrogen overall lifecycle ends up with a higher Carbon Intensity than other sources such as biomethane/RNG. Also, when you look at some of these great carbon capture and renewal energy sources such as biomethane, it appears to be the most effective method of reducing carbon intensity. Why does the proposal seem to discriminate against farmers/agriculture in carbon capture and recycling this energy for transportation and RNG/biomethane? Most of these are from dairy farms, and of course, dairy is used in many of the foods we eat, not just milk and cheese. To discriminate against our farmers in the reductions you are proposing will continue to put pressure on our food sources and also lessen the pathway to lower carbon, which could be achieved much faster if you continue or even increase incentives for this type of energy. Will you consider increasing the credits for biomethane that is created by farmers which is ultimately used DIRECTLY to vehicles? This is the cleanest and lowest form of energy which produces a negative carbon intensity level when used in vehicles. This will streamline CA carbon goals. I look forward to your answers. Thank you!

Attachment: www.arb.ca.gov/lists/com-attach/11-lcfs-wkshp-feb23-ws-BWZVMlwCBDtQNQNl.pdf

Original File Name: CA LCF.pdf

Date and Time Comment Was Submitted: 2023-03-02 06:31:59

## Comment 10 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Randy Last Name: Hull Email Address: rhull@innosepra.com Affiliation: Chief Commercial Advisor @ Innosepra

Subject: Question: Future use of fossil natural gas for hydrogen production Comment:

Is CARB and/or CPUC considering a future where the carbon intensity of hydrogen produced via steam reforming of methane can be reduced to well below the maximum threshold of 55 gCO2e/MJ if 96+% of CO2 produced is captured and sequestered? A related question is whether CARB would consider a blend of fossil gas and negative carbon biomethane that meets the threshold will be allowed?

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2023-03-02 10:16:17

## Comment 11 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Dustin Last Name: Dodds Email Address: ddodds@selectionlink.com Affiliation:

Subject: LCFS - Proposed Changes - Adverse Impact Comment:

CARB: Some of the proposed changes will have an adverse impact on carbon emissions. Can you please provide the data behind why CARB is advertising for fuel cell vehicles/Hydrogen on your website? According to the data in the attachment Hydrogen has a much higher overall carbon footprint when compared to RNG vehicles. RNG is the quickest way to get diesel off the roads. If you look at RNG from farms such as Dairy, it actually has a negative Carbon Rating. Will you consider increasing the LCFS credits for RNG dairy projects? Will you increase the LCFS credits for RNG when used in vehicles? Considering the direct positive impact RNG has in reducing emissions, will you also advertise RNG vehicles on your website?

Here is the link found on your website: https://californiahvip.org/vehicle-category/heavy-duty/

Please read in full the attached document provided on February 23, 2023 and provide your responses to the questions above.

This was sent to:

The Honorable Lily L. Batchelder Assistant Secretary for Tax Policy Department of the Treasury Mr. Seth Hanlon Deputy Assistant Secretary for Tax and Climate Policy Department of the Treasury Mr. William M. Paul Principal Deputy Chief Counsel and Deputy Chief Counsel (Technical) Internal Revenue Service Mr. John Podesta Senior Advisor to the President for Clean Energy Innovation and Implementation White House Mr. Ali Zaidi Assistant to the President and National Climate Advisor White House The Honorable Jennifer Granholm Secretary U.S. Department of Energy This document was provided by: Clean Air Task Force EDP Renewables Electric Hydrogen Electricity Maps Energy Innovation EnergyTag Environmental Defense Fund Evergreen Action FlexiDAO

Galvanize Climate Solutions Intersect Power M-RETS Natural Resources Defense Council Nordex USA, Inc Rondo Singularity Energy Synergetic LLC Union of Concerned Scientists

Attachment: www.arb.ca.gov/lists/com-attach/13-lcfs-wkshp-feb23-ws-Vj5UK1A1AiNQOVQL.pdf

Original File Name: Hydro Tax Credit Concerns.pdf

Date and Time Comment Was Submitted: 2023-03-03 12:02:46

## Comment 12 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: TaMarco Last Name: Davis Email Address: tdavis@lonecypressmss.com Affiliation: Lone Cypress Energy

Subject: Book & Claim Hydrogen Production Comment:

Attachment: www.arb.ca.gov/lists/com-attach/14-lcfs-wkshp-feb23-ws-WjYGbwNsVGIBWABj.docx

Original File Name: Lone Cypress Energy -CARB Comments.docx

Date and Time Comment Was Submitted: 2023-03-03 13:48:59

## **Comment 13 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Margaret Last Name: Laub Email Address: margaret.laub@anaergia.com Affiliation: Anaergia

Subject: Comments on Proposed LCFS Program Changes Presented at the February 22, 202 Public Worksho Comment:

Thank you for the opportunity to provide the attached comments. We look forward to reviewing the updated Tier 1 calculators for Biomethane from Anaerobic Digestion of Organic Waste when available.

Attachment: www.arb.ca.gov/lists/com-attach/16-lcfs-wkshp-feb23-ws-VTQBaVc3VGIGcghv.pdf

Original File Name: Anaergia CARB LCFS Comments - 20230309.pdf

Date and Time Comment Was Submitted: 2023-03-09 16:58:38

## Comment 14 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: BRIAN Last Name: HARRIS Email Address: bharris@papemh.com Affiliation: PAPE MATERIAL HANDLING

Subject: LCFS Credit connversation Comment:

I have attached my comments, Please let me know if you have any questions

Brian Harris

Attachment: www.arb.ca.gov/lists/com-attach/18-lcfs-wkshp-feb23-ws-VDdSNQd0VmdSCwJu.doc

Original File Name: Carb LCFS Credits Response.doc

Date and Time Comment Was Submitted: 2023-03-13 13:55:26

### **Comment 15 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Chris Last Name: Valenzuela Email Address: cvalenzuela@pmhsi.com Affiliation: Pacific Equipment Solutions

Subject: LCFS Comment:

As a significant lift truck fleet owner, we are submitting comments on the proposed updates to forklifts in the LCFS regulation based on our expertise in the industry. As fleet owners, we invest major capital resources and have significant compliance obligations in the proposed ZEF rules. We are often the trusted source of information for businesses considering electrification and have dedicated staff for the ongoing successful operations and maintenance of our forklift fleet.

Our comments on the proposed updates are as follows: • Metering requirements should provide flexibility to meter batteries or chargers or use truck telematics so that the most cost-effective technology can be deployed at any given location. This would frequently mean measuring the battery, but in some cases could include using data from 'smart' chargers or other measuring solutions. Each site and lift truck deployment are different, so providing for a range of data collection options is important. • As fleet owners, we have the most robust data on our fleet and are best equipped to collect data on all fleet operations including energy used. For example, we have access to hardware that can monitor batteries that are deployed to a site and are best positioned to set up the hardware and ensure data collection for our fleet, regardless of location. These metering solutions come at a cost to us to deploy, especially at scale, which is why it's important to align the incentive with the entity incurring costs to obtain accurate data. • The most significant compliance issue and greatest potential for

near-term electrification in forklifts is for businesses to move to class I and class II forklifts. CARB should evaluate using lift class, not load capacity as a parameter for adjusting credit generation. • Reducing credits for forklifts

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2023-03-13 14:47:32

## Comment 16 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: MAN Last Name: ALTAHER Email Address: maltaher@smartchargetech.com Affiliation: Smart Charging Technologies

Subject: SCT Comments to Potential changes to LCFS Workshop 02.23.2022 Comment:

Please find our comments attached.

Attachment: www.arb.ca.gov/lists/com-attach/20-lcfs-wkshp-feb23-ws-ViVdOFUgVlpQNQlm.pdf

Original File Name: SCT Comments to CARB LCFS - Comments on Proposed Changes Workshop 2-23-Final.pdf

Date and Time Comment Was Submitted: 2023-03-14 06:55:29

## Comment 17 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Kristin Last Name: Henningson Email Address: kristin.henningson@valero.com Affiliation:

Subject: Comments to LCFS Workshop Comment:

Please see the attached comments on the LCFS Workshop.

Attachment: www.arb.ca.gov/lists/com-attach/21-lcfs-wkshp-feb23-ws-AjBVY1xvVjYHLAU1.pdf

Original File Name: 2023-03 Valero LCFS Amendment Comments FINAL.pdf

Date and Time Comment Was Submitted: 2023-03-14 07:42:52

### **Comment 18 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Miquela Last Name: Hanselman Email Address: mhanselman@nmpf.org Affiliation: National Milk Producers Federation

Subject: Comments Regarding Potential Changes to the Low Carbon Fuel Standard Comment:

Dear Chair Randolph,

We would like to support the comments offered by Newtrient LLC on behalf of the dairy industry in response to the February 22, 2023, Public Workshop regarding potential changes to the Low Carbon Fuel Standard (LCFS).

Newtrient applauds the leadership the California Air Resources Board (CARB) is taking on climate change and appreciates being a part of this important dialogue surrounding potential changes to the Low Carbon Fuel Standard (LCFS). The dairy industry has answered the call to action and is embracing environmental responsibility - from family farms in California, to farms across America. By installing and utilizing biogas systems, farms are offering practical solutions to the challenges CARB seeks to address.

We would like to highlight our support of the following:

- •We encourage CARB to adopt higher Carbon Intensity (CI) reductions.
- We urge CARB to reconsider elimination of Book and Claim.We strongly oppose phasing out avoided methane emission crediting.
- Additionally, we would ask that CARB do the following: •Advocate For Ongoing Investment in Dairy Digester Methane Capture and Beneficial Use
  - •Update GREET Modelling
  - Oppose RNG Market Use Limitations
  - •Support Market Mechanism
  - •Reject Calls to Regulate Dairies.

We appreciate CARB's efforts to lead a robust stakeholder process ahead of formal rulemaking. We look forward to continuing to partner with the California dairy industry, CARB, and other stakeholders in the successful achievement of the State's climate goals, particularly the world leading short-lived climate pollutants (SLCP) target and programs. Greenhouse gas ("GHG") emissions have a global impact, and it is important that CARB demonstrate that its programs can harmonize environmental goals and protect the state's economy. This is particularly true of local economies in the disadvantaged communities the State says it will prioritize. California's dairy farm families and developers are striving to develop projects that not only reduce potent SLCP emissions, but also create opportunities for economic development that helps protect jobs and improve baseline environmental conditions in these communities.

Thank you for your consideration of these comments.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2023-03-14 09:41:46

### **Comment 19 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Janna Last Name: Chernetz Email Address: janna.chernetz@amogy.co Affiliation: AMOGY

Subject: AMOGY Comment Submittal Form Comment:

Amogy, an ammonia-to-power technology company, supports the efforts and submits the following comments in response to California Air Resources Board's (CARB) call for stakeholder feedback on Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard, specifically CARB's request for information on the role of ammonia, ammonia-to-power technology, as a carbon-free alternative fuel.

This is of particular importance to decarbonizing the maritime sector. On April 12. 2022 the Biden Administration announced support and commitment of the U.S. to establish Green Shipping Corridors, "In support of the effort to achieve net-zero greenhouse gas emissions by no later than 2050, and in support of the effort to achieve zero greenhouse gas emissions from the international shipping sector by the same year, the United States is charting a course to advance domestic and international green shipping corridors." Green Shipping Corridors (global and domestic) and individual ports incentivizing and requiring emissions reductions accelerate the need to create a robust portfolio of decarbonization solutions. COP27 resulted in a recommitment and ramp up of global efforts to decarbonize the maritime shipping sector. Mission Innovation, to which the U.S. is a member country, enhanced its global efforts to accelerate progress towards the Paris Agreement.

Additionally, ammonia-to-power technology will provide for off-the-grid hydrogen production and power solution. This is critical to creating a resilient hydrogen ecosystem. Ammonia-to-power technology allows for the easy transport of hydrogen, with ammonia as its carrier. As such, it serves as an ideal solution for the challenges in serving the hydrogen needs of more rural and remote areas within the hydrogen hub context. For example, in this application, green hydrogen can be used to create the green ammonia which can then be transported to an end user where it can be cracked back into hydrogen. This negates the safety concerns and complications that often accompany the transportation of pure hydrogen.

Furthermore, given the dire need to reduce GHG emissions to zero by 2050 globally and with other jurisdictions and entities having more aggressive intermittent dates, it is imperative that there be a number of alternative solutions to increase the portfolio of options. There is no one-size fits all approach. Instead it's an all hands on deck effort to identify and solve the energy demand needs of each polluting sector.

ADVANTAGES of NH3 as energy source

Over 200 ammonia ports worldwide Ammonia is the second largest produced chemical globally Over 4,500 miles of domestic ammonia pipeline

Energy density of NH3: ​​ Material - x20 battery & x10 H2 gas System - x5 battery & x2.5 H2 gas Ease of storage and transport (existing regulations and standards for the handling and transport of NH3 given its prevalence as a widely used chemical) Historic infrastructure investment on the production of green ammonia (NH3 produced using renewable energy) within the \$10B Hydrogen Hub program. Ideal fuel source for agricultural applications. As farmers are already familiar with the use of ammonia in an agriculture setting for fertilizer applications, it is a natural fit to meet the fuel needs for power demanding farm applications such as tractors, grain dryers and the warming of livestock barns. Companies, such as Amogy, have already successfully demonstrated the viability of ammonia as a tractor fuel.

#### SAFETY

Existing knowledge of safe handling of NH3 already as firm foundation for the evolution of NH3 as fuel Extensive network of global studies (ongoing and completed) to advance safety measures for utilizing ammonia in the variety of applications (for the user and the public) with support from a wide variety of stakeholders including the American Bureau of Shipping

#### ENVIRONMENT Benefits

2.7% of global CO2 emissions are attributable to the shipping sector (1% in US). IMO goals of 50% reduction of emissions (as compared to 2008 levels by 2050, zero by the end of the century. Projections from the International Renewable Energy Agency (IRENA) estimate that by 2050, in a scenario aligned with the Paris Agreement goal of keeping global temperature rise within 1.5 degrees Celsius (°C), this transition would lead to a 688 Mt ammonia market, nearly four times larger than today's market. This ammonia would be decarbonized, with 566 Mt of new renewable ammonia production (from renewable hydrogen and renewable power), complemented with fossil-based ammonia production in combination with carbon capture and storage (CCS). This drastic growth in the ammonia market is significantly caused by the recognition of the role of ammonia as a carbon-free fuel, especially in maritime shipping.

IMO regulation, MARPOL Annex VI, sets limits on NOx and SOx emissions from ship exhausts, and prohibits deliberate emissions of ozone depleting substances from ships of 400 gross tonnage and above engaged in voyages to ports or offshore terminals under the jurisdiction of states that have ratified Annex. Ammonia fuel technologies will be key to meeting these NOx standards.

#### EQUITY Benefits

Using NH3 as an energy source is consistent with goals of the Biden Admin Justice40 Initiative especially in the decarbonization of ports, port infrastructure and board maritime applications. Ports: Given NH3's natural fit for decarbonizing a variety of port and maritime applications. 12% of the population (39 million people) live near seaports, many in what is considered environmental justice communities. These communities exhibit higher rates of respiratory and cardiovascular disease, dangerous soil and water quality, and poorer health outcomes exacerbated by elevated emissions from port related equipment/vehicles/ships (standard port related activities).

ECONOMY Benefits Energy security for US - domestic green NH3 production NH3 can be used as a carbon-free energy solution in pretty much every application, especially those with heavy duty cycle requirements. Existing infrastructure to support usage (4,500 existing domestic pipeline miles, over 200 ports worldwide) Consistent with the US Department of Energy's National Clean Hydrogen Strategy and Roadmap which states: "Container ships carry about 90 percent of global trade by volume, producing about 3% of global carbon emissions and a larger share of sulfur dioxide emissions. Potential alternatives during the third wave include clean ammonia, clean methanol, and liquified clean hydrogen." Maritime engine manufacturers expect to commercialize ammonia-fuelled two-stroke and four-stroke engines by 2024 or 2025, for new builds and retrofits. Ammonia engine developers can deliver commercial performance within existing regulatory limits for nitrogen oxides.

Thank you for the opportunity to provide comments on potential changes to the Low Carbon Fuel Standard, specifically the role of ammonia . We welcome the opportunity to engage in discussions with the CARB and other relevant agencies about the role of ammonia and supporting technologies to help advance local, state, national and global emissions goals.

#### About Amogy:

Amogy is an ammonia energy company developing the technology to use liquid ammonia (hydrogen carrier) as a zero-emission fuel to decarbonize maritime shipping, heavy-duty & industrial transportation, and stationary power. Amogy was founded in November 2020 and is headquartered in the Brooklyn Navy Yard in Brooklyn NY with offices in Stavanger, Norway and Houston, TX. As of March 2023, Amogy has over 100 employees.

Amogy's technology uses liquid ammonia as a zero-emission fuel to decarbonize maritime, heavy-duty & industrial transportation, and stationary power. Amogy's technology cracks ammonia (NI3) in situ into nitrogen and hydrogen, and the hydrogen that is formed can then be utilized three ways: (1) distributed to an integrated FC, (2) the hydrogen can be used as a pilot fuel in an ammonia combustion engine, or (3) remain as pure hydrogen for chemical applications or other hydrogen needed end-uses. In all three instances, using ammonia as the hydrogen carrier and the on-demand cracking technology, the need to store and transport hydrogen is eliminated, which is the biggest challenge in hydrogen use. In addition, ammonia can be transported more easily than pure hydrogen which makes Amogy's cracking technology idea for meeting hydrogen demand in rural and more remote locations. Ammonia can be easily stored as a liquid and as such, it gives our system a high energy density that is 5x that of a battery and almost 3x that of H2 gas. Eliminating the need for both intermittent hydrogen storage and complicated hydrogen transport and the energy density of ammonia enables Amogy's technology to be compact, efficient, and scalable.

Amogy demonstrated its first proof of concept in July 2021 with the first-ever ammonia-powered zero-emissions 5kW drone and subsequently a 100kW retrofitted John Deere tractor in May 2022. In January 2023, Amogy demonstrated its technology at 300 kW in a class 8 truck, and is planning a 1 MW marine vessel demonstration in late 2023. In Sept 2022, Amogy received its Approval in Principle (AiP) from Lloyd's Register for the ammonia-to-power system in said marine vessel. These demonstrations will lead to the commercialization of Amogy technology starting in 2024 as a solution to meet global and national fuel decarbonization goals.

Attachment: www.arb.ca.gov/lists/com-attach/23-lcfs-wkshp-feb23-ws-VzZTOAZoBzMBfgNc.pdf

Original File Name: Amogy White Paper 041522\_FINAL (4).pdf

Date and Time Comment Was Submitted: 2023-03-14 11:14:26

## Comment 20 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Morgan Last Name: Beeler Email Address: morgan.beeler@stxgroup.com Affiliation: STX Commodities, LLC

Subject: Comments on CARB's February LCFS Workshop Comment:

STX Commodities, LLC, an environmental commodities trader, respectfully submits the attached comment in response to potential updates to the Low Carbon Fuel Standard (LCFS) program as outlined by CARB staff during the February 22nd, 2023, workshop.

Attachment: www.arb.ca.gov/lists/com-attach/24-lcfs-wkshp-feb23-ws-WikAcgF4WFQHYgJt.pdf

Original File Name: STX Comment on CARB LCFS Workshop\_March 2023.pdf

Date and Time Comment Was Submitted: 2023-03-14 12:25:16

### **Comment 21 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Evan Last Name: Edgar Email Address: evan@edgarinc.org Affiliation:

Subject: Lithium Supply Chain Due Diligence - EJAC Implementation Comment:

CARB needs to adopt a California Battery Directive following the EU Battery Directive to compliment the recently adopted Scoping Plan Update 2022 and the recommendations from the Environmental Justice Advisory Committee (EJAC), where the Scoping Plan accelerates the electrification of the transportation sector with few conditions other than not exacerbating harm to disproportionately impacted communities. Mining lithium from around the world is severely exacerbating harm disproportionately on impacted communities. More than half the world's lithium resources lie beneath the salt flats in the Andean regions of Argentina, Bolivia and Chile, where indigenous quinoa farmers and llama headers must now compete with miners for water in one of the world's driest regions. The LCFS promoting ZEVs need to take Lithium Supply Chain Due Diligence into consideration.

Attachment: www.arb.ca.gov/lists/com-attach/25-lcfs-wkshp-feb23-ws-AGxXOFAlWWJVOlUg.pdf

Original File Name: Lithium Supply Chain Due Diligence ZEV Battery\_.pdf

Date and Time Comment Was Submitted: 2023-03-14 14:42:27

### **Comment 22 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: David Last Name: Rodriguez Email Address: pesddr@gmail.com Affiliation: Central Valley defenders for clean air

Subject: Dairy pollution, digesters . Methane , nitrates . Comment:

It seems evidently clear that the dairy industry needs to be a primary focus in the fight against air and water pollution . If you have programs that create incentives for digesters , we will never achieve the benefits we need . Dairy and livestock accounts for more than half of Calif methane emissions . The generous amount of subsidies for dairy derived methane will persuade dairies to expand , adding more cows to produce more manure . PROFITS OVER PEOPLE . Calif has allocated \$350 million to build digesters . The digester program would undercut the states overarching environmental goals and the public health priorities . Biogas is being falsely marketed as a renewable energy solution to solve the problems of an already polluting industry. CARB has the opportunity to solve the imminent threats of pollution that pertains directly to dairies .

Attachment:

**Original File Name:** 

Date and Time Comment Was Submitted: 2023-03-14 15:21:36

## Comment 23 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Chad Last Name: Griffith Email Address: cgriffith@northernbiogas.com Affiliation: Northern Biogas, LLC

Subject: Comments on Potential Changes to LCFS Comment:

See attached letter.

Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/28-lcfs-wkshp-feb23-ws-WjYCZwBnVnYKU1Ul.pdf

Original File Name: LCFS Policy Comment Letter.v2 signed cta - signed.pdf

Date and Time Comment Was Submitted: 2023-03-14 16:41:08

## Comment 24 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Joseph Last Name: Tesar Email Address: jtesar@quantalux.com Affiliation: Quantalux LLC

Subject: green H2, methanation, book and claim Comment:

See attached pdf.

Attachment: www.arb.ca.gov/lists/com-attach/30-lcfs-wkshp-feb23-ws-BWYCa1Y6BzkFZlM9.pdf

Original File Name: Comments, LCFS workshop (Quantalux).pdf

Date and Time Comment Was Submitted: 2023-03-14 18:24:21

## Comment 25 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Hope Last Name: Fasching Email Address: hfasching@ghcoalition.org Affiliation: Green Hydrogen Coalition

Subject: GHC Comments on CARB's Public Workshop - Potential Future Changes to the LCFS Program Comment:

GHC Comments on CARB's Public Workshop - Potential Future Changes to the LCFS Program

Attachment: www.arb.ca.gov/lists/com-attach/31-lcfs-wkshp-feb23-ws-AjAANIJhBGRXfAQ0.pdf

Original File Name: 2023-03-15 GHC Comments on CARB's Public Workshop - Potential Future Changes to the LCFS Program.pdf

Date and Time Comment Was Submitted: 2023-03-14 21:55:15

## Comment 26 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Janet Last Name: Cox Email Address: janet@jwcox.com Affiliation: Climate Action California

Subject: 350 Humboldt and Climate Action California comment on LCFS Comment:

Please accept the attached comment letter.

Attachment: www.arb.ca.gov/lists/com-attach/32-lcfs-wkshp-feb23-ws-BWlUMQFmWHgDWlQy.pdf

Original File Name: LCFS\_Feb2022Wkshp\_comments.pdf

Date and Time Comment Was Submitted: 2023-03-14 22:17:36

# Comment 27 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Oscar Last Name: Garcia Email Address: oscar.garcia@neste.com Affiliation: Neste

Subject: Neste Comments on Feb 22 LCFS Workshop Comment:

Neste is pleased to submit the attached comments.

Attachment: www.arb.ca.gov/lists/com-attach/33-lcfs-wkshp-feb23-ws-AG4HZFMhBCNVNglW.pdf

Original File Name: Neste\_February 22 LCFS Rulemaking Workshop Comments\_Mar 15 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 08:14:21

### **Comment 28 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Xenia Last Name: Seliver Email Address: xseliver@sgh2energy.com Affiliation: Head of Corporate Affairs

Subject: SGH2 Comments Comment:

Good Afternoon,

Please find attached comments to CARB LCFS Rule changes from SGH2 Energy Global Corporation.

Warm Regards, Xenia Seliver Head of Corporate Affairs SGH2 Energy Global Corp www.sgh2energy.com xseliver@sgh2energy.com

Attachment: www.arb.ca.gov/lists/com-attach/34-lcfs-wkshp-feb23-ws-WjlSO1A8WGYDYAZo.pdf

Original File Name: Comments to CARB LCFS Rule changes from SGH2 03.15.pdf

Date and Time Comment Was Submitted: 2023-03-15 08:16:14

## Comment 29 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Kent Last Name: Hartwig Email Address: khartwig@gevo.com Affiliation:

Subject: Gevo LCFS Workshop Comments 3/15/2023 Comment:

See attached document for Gevo's LCFS Workshop comments.

Kent Hartwig

Attachment: www.arb.ca.gov/lists/com-attach/35-lcfs-wkshp-feb23-ws-WmpdaFBgVjBXYwEx.pdf

Original File Name: 03152023 Gevo LCFS Workshop Comments.pdf

Date and Time Comment Was Submitted: 2023-03-15 09:12:16

## Comment 30 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Frank Last Name: Harris Email Address: fharris@cmua.org Affiliation: California Municipal Utilities Associati

Subject: CMUA Comments on February 22, 2023, LCFS Workshop Comment:

Please see comments from the California Municipal Utilities Association attached.

Best Regards,

Frank Harris

Attachment: www.arb.ca.gov/lists/com-attach/37-lcfs-wkshp-feb23-ws-VzRdNlMnAzFXDgJu.pdf

Original File Name: CMUA LCFS Workshop Comments 3.15.2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 09:22:18

## Comment 31 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Maya Last Name: Kelty Email Address: mkelty@3degrees.com Affiliation: 3Degrees

Subject: 3Degrees Comments on LCFS Comment:

Please see attached. Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/38-lcfs-wkshp-feb23-ws-UmFVN1YyVWEFcQFk.pdf

Original File Name: 3Degrees Comments on LCFS\_March 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 09:32:47
### Comment 32 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Carolyn Last Name: Raffensperger Email Address: carolyn@sehn.org Affiliation:

Subject: Changes to the low carbon fuel standard Comment:

Please find attached the comments of the Science and Environmental Health Network on proposed changes to the Low Carbon Fuel Standard regarding carbon capture and storage.

Attachment: www.arb.ca.gov/lists/com-attach/39-lcfs-wkshp-feb23-ws-VTZRNIYIVWQDWglq.docx

Original File Name: CARB comment on LCFS.docx

Date and Time Comment Was Submitted: 2023-03-15 09:45:54

#### **Comment 33 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: lucas Last Name: grimes Email Address: lucas.grimes@resource-solutions.org Affiliation: Center for Resource Solutions

Subject: Comments in Response the California Air Resources Board (CARB) February 23, 2023 Public Wo Comment:

Please find attached, CRS's comments pertain to a utility-specific carbon intensity (CI) value of electricity and book-and-claim accounting for biomethane and hydrogen.

Attachment: www.arb.ca.gov/lists/com-attach/40-lcfs-wkshp-feb23-ws-B2QAdANxUl4GYwVq.pdf

Original File Name: CRS Comments to CARB on the Feb 23, 2023 LCFS Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 09:51:13

## Comment 34 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: David Last Name: Mann Email Address: david.mann@oberonfuels.com Affiliation: Oberon Fuels

Subject: Oberon Fuels Comments Comment:

Please see attached letter.

Attachment: www.arb.ca.gov/lists/com-attach/41-lcfs-wkshp-feb23-ws-WzQBZQBkBCULYlU7.pdf

Original File Name: Oberon Fuels Comments on CARB LCFS Workshop March 15 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 09:55:42

# Comment 35 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: David Last Name: Hovermale Email Address: dhovermale@nopa.org Affiliation:

Subject: NOPA Comments Regarding CARB February 22 Workshop Comment:

National Oilseed Processors Assocation comments Regarding CARB's February 22 Workshop

Attachment: www.arb.ca.gov/lists/com-attach/42-lcfs-wkshp-feb23-ws-AW9QOQR1ADIDWgFi.pdf

Original File Name: NOPA Comments to February 22 CARB Workshop Final.pdf

Date and Time Comment Was Submitted: 2023-03-15 09:55:52

### Comment 36 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Phillip Last Name: Feiner Email Address: pbf@nacero.co Affiliation:

Subject: Nacero Inc. comment letter to CARB on it LCFS amendments Comment:

Dear CARB,

Thank you for the opportunity to comment on your proposed LCFS amendments. Please find attached our letter.

Thank you, Phillip Feiner

Attachment: www.arb.ca.gov/lists/com-attach/43-lcfs-wkshp-feb23-ws-UDNSNQR3AjMLUlQ3.docx

Original File Name: CARB comment letter 3-15-23 FINAL!.docx

Date and Time Comment Was Submitted: 2023-03-15 10:00:11

#### **Comment 37 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Paul Last Name: Hernandez Email Address: phernandez@ebce.org Affiliation: East Bay Community Energy (EBCE)

Subject: Comments of East Bay Community Energy and Marin Clean Energy on LCFS Workshop Comment:

Hello:

East Bay Community Energy (EBCE) and Marin Clean Energy (MCE) are pleased to provide these comments in response to the Low Carbon Fuel Standard Public Workshop: Potential Regulation Amendment Concepts (Workshop), held February 22, 2023.

Thank you for reviewing our comments.

Please reach out to Paul D. Hernandez, Principal Regulatory Manager, Transportation Electrification, with any questions or for clarification (phernandez@ebce.org).

Respectfully Submitted,

-Paul D. Hernandez

Attachment: www.arb.ca.gov/lists/com-attach/44-lcfs-wkshp-feb23-ws-BWYCa1wwV2kKaQZo.pdf

Original File Name: Comments of Joint CCAs to LCFS Workshop, Filed 3.15.2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 09:47:21

## Comment 38 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Chris Last Name: Vervaet Email Address: chris.vervaet@copacanada.com Affiliation: Canadian Oilseed Processors Association

Subject: Canola Council of Canada submission Comment:

please find feedback attached.

Attachment: www.arb.ca.gov/lists/com-attach/45-lcfs-wkshp-feb23-ws-BmVdOFMxWVUBdAN2.pdf

Original File Name: CCC submission\_Feb 2023 CARB LCFS Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 10:19:49

## Comment 39 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Thomas Last Name: Jelenić Email Address: tjelenic@pmsaship.com Affiliation: PMSA

Subject: PMSA Comments on February 2023 Workshop Comment:

Please see attached comments.

Attachment: www.arb.ca.gov/lists/com-attach/46-lcfs-wkshp-feb23-ws-BXUBagd1AzEEXVAz.pdf

Original File Name: PMSA Comments on February LCFS Workshop 03152023.pdf

Date and Time Comment Was Submitted: 2023-03-15 10:25:40

# Comment 40 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Anthony Last Name: Harrison Email Address: anthony@terawattinfrastructure.com Affiliation: TeraWatt Infrastructure

Subject: TeraWatt's Comments on February 22, 2023 Workshop Comment:

Comments of TeraWatt Infrastructure on the February 22, 2023 Workshop.

Attachment: www.arb.ca.gov/lists/com-attach/47-lcfs-wkshp-feb23-ws-UiZVNlEiV2VXJghp.pdf

Original File Name: TeraWatt LCFS Comments\_03152023.pdf

Date and Time Comment Was Submitted: 2023-03-15 10:36:03

## Comment 41 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: John Last Name: O'Donnell Email Address: john@rondo.com Affiliation: Rondo Energy, Inc.

Subject: Rondo Energy Comments Comment:

See attached LCFS comments.

Attachment: www.arb.ca.gov/lists/com-attach/49-lcfs-wkshp-feb23-ws-BTdcaVNiWDhXYAUx.pdf

Original File Name: 230314 Rondo LCFS Feb 2023 Workshop Comments.pdf

Date and Time Comment Was Submitted: 2023-03-15 11:02:18

## Comment 42 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Shelby Last Name: Neal Email Address: shelby.neal@darlingii.com Affiliation: Darling Ingredients

Subject: LCFS Workshop Comments Comment:

Please accept these comments on behalf of Darling Ingredients.

Sincerely,

Shelby Neal

Attachment: www.arb.ca.gov/lists/com-attach/50-lcfs-wkshp-feb23-ws-WjYGY1E2ACADWgl+.pdf

Original File Name: LCFS Workshop Comments 3-15-2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 11:12:39

## Comment 43 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Kent Last Name: Engelbrecht Email Address: kent.engelbrecht@adm.com Affiliation: ADM

Subject: LCFS: Potential Regulation Amendment Concepts Comment:

Please see ADM's comments regarding potential crop-based biofuels

Attachment: www.arb.ca.gov/lists/com-attach/51-lcfs-wkshp-feb23-ws-UTABY1wwUV0HbVAz.pdf

Original File Name: ADM LCFS comments 031523 final.pdf

Date and Time Comment Was Submitted: 2023-03-15 10:56:32

## Comment 44 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Don Last Name: Gilstrap Email Address: dgilstrap@chevron.com Affiliation:

Subject: Chevron comments on Feb 22, 2023 Workshop Comment:

see attached

Attachment: www.arb.ca.gov/lists/com-attach/52-lcfs-wkshp-feb23-ws-AGNTPVA0UXQBdVI9.pdf

Original File Name: Chevron Comments on February 2023 LCFS Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 11:34:11

### Comment 45 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Sherrie Last Name: Merrow Email Address: smerrow@ngvamerica.org Affiliation: NGVAmerica

Subject: NGVAmerica Comments on Proposed Changes to CA LCFS Comment:

Please see attached comment letter.

Thank you.

Sherrie Merrow Director, State Government Affairs NGVAmerica smerrow@ngvamerica.org 303.883.5121

Attachment: www.arb.ca.gov/lists/com-attach/53-lcfs-wkshp-feb23-ws-BWsHZlEmBDYFbgFk.pdf

Original File Name: NGVAmerica Comments on CARB LCFS Proposed Changes - March 15 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 11:33:07

## Comment 46 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Krysta Last Name: Wanner Email Address: krysta@westernpga.org Affiliation: Western Propane Gas Association

Subject: LCFS February Workshop Comment:

Please see attached letter.

Attachment: www.arb.ca.gov/lists/com-attach/54-lcfs-wkshp-feb23-ws-UmEFLQExB2FReQU3.pdf

Original File Name: 3.15.23 LCFS Workshop Comment Letter WPGA.pdf

Date and Time Comment Was Submitted: 2023-03-15 11:33:43

## Comment 47 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Noah Last Name: Garcia Email Address: noah.garcia@evgo.com Affiliation: EVgo

Subject: EVgo Comments on February 22 LCFS Workshop Comment:

Please find comments attached as pdf. Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/55-lcfs-wkshp-feb23-ws-AGVcLAFnUGwBWABs.pdf

Original File Name: EVgo LCFS Workshop Comments Final March\_23.pdf

Date and Time Comment Was Submitted: 2023-03-15 11:45:49

## Comment 48 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Michael Last Name: Caprio Email Address: mcaprio@republicservices.com Affiliation: Republic Services

Subject: Draft LCFS Regulations Feedback Comment:

Comment letter on Draft LCFS Regulations from Republic Services is attached

Attachment: www.arb.ca.gov/lists/com-attach/56-lcfs-wkshp-feb23-ws-BXcAY1UkV3FRNQll.pdf

Original File Name: Republic Services LCFS Draft Reg 031523.pdf

Date and Time Comment Was Submitted: 2023-03-15 11:48:42

#### **Comment 49 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Kathy Last Name: Bergren Email Address: bergren@ncga.com Affiliation: NCGA

Subject: NCGA Comments to CARB on the February 22, 2023 LCFS Workshop Comment:

The National Corn Growers Association (NCGA) would like to submit the attached comments for the February 22, 2023 LCFS Workshop on Potential Regulation Amendment Concepts. Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/57-lcfs-wkshp-feb23-ws-ATNWYwEwVTULPAE1.pdf

Original File Name: 230314 NCGA - LCFS Feb 22 2023 Workshop Comment.pdf

Date and Time Comment Was Submitted: 2023-03-15 11:56:15

## Comment 50 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Mark Last Name: Stoermann Email Address: mstoerm@newtrient.com Affiliation: COO

Subject: Newtrient Comments Regarding Potential Changes to the Low Carbon Fuel Standard Comment:

Please see attached comments. Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/58-lcfs-wkshp-feb23-ws-WzVRMlEnU3QGcgBp.pdf

Original File Name: Newtrient Comments Regarding Potential Changes to the LCFS March 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 12:25:53

### Comment 51 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: David Last Name: Oliver Email Address: david@caliberstrat.com Affiliation: Caliber Strategies

Subject: Remora Comments on February 22, 2023, LCFS Workshop Comment:

Remora is pleased to submit the attached comments for the Low Carbon Fuel Standard workshop of February 22, 2023.

Attachment: www.arb.ca.gov/lists/com-attach/59-lcfs-wkshp-feb23-ws-V2cFMFN8VTdXZAgm.pdf

Original File Name: 03.15.2023\_Remora Comments on 02.22.2023 LCFS Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 12:52:59

## Comment 52 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Dan Last Name: Bowerson Email Address: dbowerson@autosinnovate.org Affiliation: Alliance for Automotive Innovation

Subject: Auto Innovators Comments on CA LCFS Potential Amendments Comment:

Please find the attached comments from the Alliance for Automotive Innovation.

Attachment: www.arb.ca.gov/lists/com-attach/60-lcfs-wkshp-feb23-ws-WjtTIAF0WGQLUgBp.pdf

Original File Name: Auto Innovators\_CA LCFS Potential Regulation Amendment Concepts (March 15 2023).pdf

Date and Time Comment Was Submitted: 2023-03-15 12:56:10

## Comment 53 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Brent Last Name: Lilienthal Email Address: blilienthal@lfbioenergy.com Affiliation:

Subject: LCFS Workshop Comments Comment:

Thank you for reviewing our comments to your Feb 23 2023

Attachment: www.arb.ca.gov/lists/com-attach/61-lcfs-wkshp-feb23-ws-VzsCZ1YxUHBQCQBm.pdf

Original File Name: LCFS Feb 23 2023 workshop comments.pdf

Date and Time Comment Was Submitted: 2023-03-15 12:37:07

# Comment 54 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Chris Last Name: Bliley Email Address: cbliley@growthenergy.org Affiliation: Growth Energy

Subject: Comments on the February 22nd LCFS Workshop Comment:

Please see the attached comment from Growth Energy and please let us know if you have any questions.

Attachment: www.arb.ca.gov/lists/com-attach/62-lcfs-wkshp-feb23-ws-AWICZVckVGUAWQRo.pdf

Original File Name: CARB\_LCFSWorkshop03142023\_Final.pdf

Date and Time Comment Was Submitted: 2023-03-15 13:10:36

## Comment 55 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: jay Last Name: riker Email Address: jriker@nlcenergy.com Affiliation: NLC Energy

Subject: February 22, 2023 Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Stan Comment:

Attached PDF response to Public workshop from NLC Energy

Attachment: www.arb.ca.gov/lists/com-attach/63-lcfs-wkshp-feb23-ws-UD5SOFMxAjQDWgBj.pdf

Original File Name: NLCE Comments February 22 2023 Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 12:40:10

## Comment 56 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Chris Last Name: Wilson Email Address: chris.wilson@electrochaea.com Affiliation: Electrochaea Corporation

Subject: Electrochaea Comments to lcf-wkshp-feb23-ws Comment:

See attached file containing comments.

Attachment: www.arb.ca.gov/lists/com-attach/64-lcfs-wkshp-feb23-ws-AWIHYFQnWGkKUwll.pdf

Original File Name: CARB\_LCFS\_Electrochaea\_Submission\_lcfs-wkshp-feb23-ws.pdf

Date and Time Comment Was Submitted: 2023-03-15 13:16:50

## Comment 57 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Keith Last Name: Meloni Email Address: km@revlng.com Affiliation:

Subject: Comments to LCFS Workshop Comment:

REV LNG comments to February CARB Workshop

Attachment: www.arb.ca.gov/lists/com-attach/65-lcfs-wkshp-feb23-ws-B3UAY1QjBQlXPQVr.pdf

Original File Name: REV LNG Response to Feb 2023 CARB Workshop\_Final (002).pdf

Date and Time Comment Was Submitted: 2023-03-15 13:26:29

## Comment 58 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Jeremy Last Name: Martin Email Address: jmartin@ucsusa.org Affiliation: Union of Concerned Scientists

Subject: UCS Comments on Feb 23 workshop 1 of 2 Comment:

See attached comment

Attachment: www.arb.ca.gov/lists/com-attach/66-lcfs-wkshp-feb23-ws-Wy4GY1IgVlpRNAVq.pdf

Original File Name: UCS comments Feb 2023 LCFS workshop-1 of 2.pdf

Date and Time Comment Was Submitted: 2023-03-15 13:26:31

# Comment 59 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Jeremy Last Name: Martin Email Address: jmartin@ucsusa.org Affiliation: Union of Concerned Scientists

Subject: UCS Comments on Feb 23 workshop 2 of 2 - lipid fuels Comment:

See attached comment

Attachment: www.arb.ca.gov/lists/com-attach/67-lcfs-wkshp-feb23-ws-UyYAZQZ0BAhRNAFu.pdf

Original File Name: UCS comments Feb 2023 LCFS workshop-2 of 2-Lipid fuels.pdf

Date and Time Comment Was Submitted: 2023-03-15 13:26:31

## Comment 60 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Tim Last Name: Gibbons Email Address: timgibbons@morural.org Affiliation: Missouri Rural Crisis Center

Subject: MRCC Comments-Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard Comment:

See attached.

Attachment: www.arb.ca.gov/lists/com-attach/68-lcfs-wkshp-feb23-ws-BWhQJANhAjJWDwFi.pdf

Original File Name: MRCC Comments--Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard 3.15.23.pdf

Date and Time Comment Was Submitted: 2023-03-15 13:27:46

### Comment 61 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Richard Last Name: DeRose Email Address: rderose@sjindustries.com Affiliation: SJI

Subject: SJI Feedback: Public Workshop to Discuss Potential Changes to the LCFS Comment:

Please accept the attached letter on behalf of Donna Schempp, President & COO, SJI Renewable Energy Ventures.

Attachment: www.arb.ca.gov/lists/com-attach/70-lcfs-wkshp-feb23-ws-ViVcMFI6V1tQJAZj.pdf

Original File Name: SJI Response to CARB Workshop 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 13:26:58

#### **Comment 62 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Andre Last Name: Templeman Email Address: andre@alphainception.com Affiliation:

Subject: Comments and suggestions from Alpha Inception Comment:

Summary of comments being filed in letter:

With a CI reduction target of 35%,40% or even higher by 2030, as is being recommended by some and market prices at the ceiling in 2026, AI anticipates that the net cost of the program to California consumers starting as early as 2026 to be more than \$12 Billion annually and increasing at more than 10% each year and would almost exclusively be borne by Gasoline consumers at a cost of around \$1/Gallon, again increasing at more than 10% per year. This compares with a program cost to consumers this year of less than \$2 Billion and a little less than \$.15 per Gallon of petroleum-based fuels purchased by California consumers.

CI target changes must be implemented this year and be effective in 2024! To ensure that this happens, AI recommends that these changes be the focus of the current regulatory rulemaking and should not be combined with the more complicated and contentious changes currently being comingled into one very complex and contentious proceeding.

We deeply appreciate all the work that CARB does and your continued leadership worldwide in mitigating climate change and hope that our comments and suggestions will help inform your decisions in the future.

Respectfully, Andre Templeman CEO, Alpha Inception Phone: (801)455-3033 Email: andre@alphainception.com

Attachment: www.arb.ca.gov/lists/com-attach/71-lcfs-wkshp-feb23-ws-VTRRPlEPVmkHYglv.pdf

Original File Name: AI LCFS Comments Mar 15, 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 13:45:51

### Comment 63 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Jasmin Last Name: Martinez Email Address: jasmin@calcleanair.org Affiliation:

Subject: Climate Justice Comments on CCS as Presented at the Feb. 22, 2023 Workshop Comment:

Good afternoon,

Please accept the attached file, "Climate Justice Comments on CCS as Presented at the Feb. 22, 2023 Workshop", as our comments for the workshop.

Thank you, Jasmin Martinez

Attachment: www.arb.ca.gov/lists/com-attach/72-lcfs-wkshp-feb23-ws-VDhcOVQzUXEFXFAn.pdf

Original File Name: LCFS Workshop Comment Letter - CCS Protocol.pdf

Date and Time Comment Was Submitted: 2023-03-15 13:45:23

## Comment 64 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Nora Last Name: Cohen Brown Email Address: shayla@caliberstrat.com Affiliation: Charm Industrial

Subject: Charm Industrial's Comments to February 22, 2023 LCFS Workshop Comment:

Please find Charm's comments attached.

Attachment: www.arb.ca.gov/lists/com-attach/73-lcfs-wkshp-feb23-ws-W2sFMAYpVzUGNVN9.pdf

Original File Name: 03.15.2023 Charm LCFS Workshop Comments.pdf

Date and Time Comment Was Submitted: 2023-03-15 13:57:47

## Comment 65 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Ryan Last Name: Huggins Email Address: rhuggins@pinespire.com Affiliation: PineSpire

Subject: Comments on Proposed LCFS Rulemaking March 2023 Comment:

please see attached comments.

Attachment: www.arb.ca.gov/lists/com-attach/74-lcfs-wkshp-feb23-ws-WipQPwRrV2EKf1cn.pdf

Original File Name: PineSpire\_LCFS Rulemaking comments March 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 14:09:59

## Comment 66 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Michael Last Name: Boccadoro Email Address: mboccadoro@westcoastadvisors.com Affiliation: Agricultural Energy Consumers Assoc

Subject: Ag Energy Consumers Assoc comments on 2/22/23 LCFS workshop Comment:

See attached comments

Attachment: www.arb.ca.gov/lists/com-attach/75-lcfs-wkshp-feb23-ws-WzpdPgNhWWtVDANg.pdf

Original File Name: AECA Comments on Feb 22 LCFS Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 14:19:23

#### **Comment 67 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Bernard Charles Last Name: Fenner Email Address: bernard.fenner@ductor.com Affiliation:

Subject: Ductor Americas Inc - LCFS comments Comment:

Dear Dr. Laskowski:

Thank you for the opportunity to comment on the February 22, 2023 Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (LCFS). The LCFS is one of the most powerful climate change policies in the world, and it uniquely supports a wide array of innovative low carbon fuel production pathways. This can include pathways that significantly reduce emissions of N2O, such as projects that Ductor develops. We encourage you to strengthen the program through the amendment process to ensure it continues playing this unique role - delivering deep emission reductions from expected, and unexpected, sources. In particular, we offer the following recommendations:

• Strengthen carbon intensity reduction requirements to align with levels needed to achieve outcomes in the 2022 Final Scoping Plan, including a target of at least 35% carbon intensity reduction by 2030.

• Include a step-change in carbon intensity in 2024 to account for the current oversupply of credits and develop a one-way ratchet mechanism to provide certainty needed to develop new, low carbon fuel pathways, capture additional opportunities for carbon intensity reductions, and ensure the strength of the program on an ongoing basis.

• Avoid changes to biogas pathway crediting that lead to high credit price spikes, including reducing book-and-claim opportunities for out-of-state biogas, which provides an important source of fuel and credits under the program.

• Should CARB restrict book-and-claim of biogas, allow biogas to provide book-and-claim energy for all zero emission vehicle fuels equally (hydrogen production and electricity production) and as process energy to other fuel pathways.

• Ensure that avoided N2O emissions are fully and completely valued in the program and calculators.

• Update the Tier 1 calculator for dairy and swine manure to apply to all manure pathways, including biogas from poultry manure, and ensure accounting includes avoided N2O emissions and beneficial byproducts like organic and sustainable fertilizers.

Attachment: www.arb.ca.gov/lists/com-attach/77-lcfs-wkshp-feb23-ws-VTECcQBiVHNVPAV3.pdf

Original File Name: Ductor LCFS comments\_2.22.23 Workshop final.pdf

Date and Time Comment Was Submitted: 2023-03-15 14:25:27
# Comment 68 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Miles Last Name: Heller Email Address: hellermt@airproducts.com Affiliation: Air Products

Subject: February 22nd LCFS Workshop Comments Comment:

Please find our comments attached. We appreciate the opportunity to provide this feedback.

Attachment: www.arb.ca.gov/lists/com-attach/78-lcfs-wkshp-feb23-ws-VDUCbQZ1V1sEclAi.pdf

Original File Name: Air Products Comments February 22 LCFS Workshop final.pdf

Date and Time Comment Was Submitted: 2023-03-15 14:25:38

### Comment 69 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Elizabeth Last Name: Bourbon Email Address: elizabeth.bourbon@valero.com Affiliation:

Subject: DGD comments following Feb 2023 LCFS Workshop Comment:

I tried to send a zip file containing a letter and an attachment, but received error messages both times indicating that my file was not uploaded. I will submit the docs separately - first the letter, next I will submit the attachment. I apologize for any inconvenience!

Attachment: www.arb.ca.gov/lists/com-attach/80-lcfs-wkshp-feb23-ws-UDRQMQdiWFQKYFIx.pdf

Original File Name: DGD LCFS Workshop Comments 3.15.23.pdf

Date and Time Comment Was Submitted: 2023-03-15 14:31:47

#### Comment 70 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Nikita Last Name: Pavlenko Email Address: n.pavlenko@theicct.org Affiliation: ICCT

Subject: ICCT comments on the February 2023 LCFS Workshop Comment:

The attached comments are submitted by the International Council on Clean Transportation (ICCT). The ICCT is an independent nonprofit organization founded to provide unbiased research and technical analysis to environmental regulators. Our mission is to improve the environmental performance and energy efficiency of road, marine, and air transportation, in order to benefit public health and mitigate climate change. We promote best practices and comprehensive solutions to increase vehicle efficiency, increase the sustainability of alternative fuels, reduce pollution from the in-use fleet, and curtail emissions of local air pollutants and greenhouse gases (GHG) from international goods movement.

The ICCT welcomes the opportunity to provide comments on the Air Resources Board's February LCFS workshop to discuss potential changes to the Low-Carbon Fuel Standard. We commend the agency for its technical analysis and interest in continuing to improve the effectiveness of one of its flagship climate programs. Based on the content of the workshop, the comments below offer a number of technical observations and recommendations for ARB to consider in future changes to the Low-Carbon Fuel Standard.

Attachment: www.arb.ca.gov/lists/com-attach/82-lcfs-wkshp-feb23-ws-UTdUN10+UDELPgRb.pdf

Original File Name: Feb23 LCFS Workshop Comments\_Clean\_0.2\_NP.pdf

Date and Time Comment Was Submitted: 2023-03-15 14:36:00

# Comment 71 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Tom Last Name: Van Heeke Email Address: tvanheeke@rivian.com Affiliation: Rivian Automotive, LLC

Subject: Comments on Feb 22, 2023, LCFS Workshop Comment:

Please see attached for informal feedback on several topics discussed at the Feb 22, 2023, LCFS workshop.

Attachment: www.arb.ca.gov/lists/com-attach/83-lcfs-wkshp-feb23-ws-VCZdMgN0VG4FYlQ6.pdf

Original File Name: Rivian\_LCFSFeb2023WorkshopInformalComments\_FINAL.pdf

Date and Time Comment Was Submitted: 2023-03-15 14:36:39

## Comment 72 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Greg Last Name: Kester Email Address: gkester@casaweb.org Affiliation: California Assoc of Sanitation Agencies

Subject: Comments on LCFS Program Comment:

Please find attached comments from the California Association of Sanitation Agencies on the LCFS program workshop. Please contact me with any questions. Thank you - Greg Kester

Attachment: www.arb.ca.gov/lists/com-attach/84-lcfs-wkshp-feb23-ws-BjUGLQAwUTcHLAk7.pdf

Original File Name: 3-15-23 CASA LCFS Comment Letter.pdf

Date and Time Comment Was Submitted: 2023-03-15 14:37:12

#### **Comment 73 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Bernard Charles Last Name: Fenner Email Address: bernard.fenner@ductor.com Affiliation:

Subject: Ductor Americas Inc - LCFS comments Comment:

Dear Dr. Laskowski:

Thank you for the opportunity to comment on the February 22, 2023 Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (LCFS). The LCFS is one of the most powerful climate change policies in the world, and it uniquely supports a wide array of innovative low carbon fuel production pathways. This can include pathways that significantly reduce emissions of N2O, such as projects that Ductor develops. We encourage you to strengthen the program through the amendment process to ensure it continues playing this unique role - delivering deep emission reductions from expected, and unexpected, sources. In particular, we offer the following recommendations:

• Strengthen carbon intensity reduction requirements to align with levels needed to achieve outcomes in the 2022 Final Scoping Plan, including a target of at least 35% carbon intensity reduction by 2030.

• Include a step-change in carbon intensity in 2024 to account for the current oversupply of credits and develop a one-way ratchet mechanism to provide certainty needed to develop new, low carbon fuel pathways, capture additional opportunities for carbon intensity reductions, and ensure the strength of the program on an ongoing basis.

• Avoid changes to biogas pathway crediting that lead to high credit price spikes, including reducing book-and-claim opportunities for out-of-state biogas, which provides an important source of fuel and credits under the program.

• Should CARB restrict book-and-claim of biogas, allow biogas to provide book-and-claim energy for all zero emission vehicle fuels equally (hydrogen production and electricity production) and as process energy to other fuel pathways.

• Ensure that avoided N2O emissions are fully and completely valued in the program and calculators.

• Update the Tier 1 calculator for dairy and swine manure to apply to all manure pathways, including biogas from poultry manure, and ensure accounting includes avoided N2O emissions and beneficial byproducts like organic and sustainable fertilizers.

Attachment: www.arb.ca.gov/lists/com-attach/85-lcfs-wkshp-feb23-ws-UzdXJFc1VnECa1Un.docx

Original File Name: Ductor LCFS comments\_2.22.23 Workshop final.docx

Date and Time Comment Was Submitted: 2023-03-15 14:39:16

## Comment 74 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Dean Last Name: Taylor Email Address: Dean@CalETC.com Affiliation: Calif Electric Transportation Coalition

Subject: CalETC and EVCA Comments on Feb 22, 2023 workshop Comment:

joint comments by California Electric Transportation Coalition and Electric Vehicle Charging Association

Attachment: www.arb.ca.gov/lists/com-attach/86-lcfs-wkshp-feb23-ws-AGMHYFA9V2FVJwJh.pdf

Original File Name: CalETC EVCA comment letter on Feb LCFS workshop March 15, 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 14:39:18

#### **Comment 75 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Sean Last Name: Newsum Email Address: snewsum@airlines.org Affiliation: Airlines for America

Subject: A4A comments on Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Stand Comment:

Airlines for America(r) (A4A), the principal trade and service organization of the U.S. airline industry, appreciates the opportunity to provide feedback on the California Air Resources Board's (CARB) February 22, 2023 public workshop on potential future changes to the Low Carbon Fuel Standard (LCFS) Program, including those reflected in the Draft Regulatory Text document shared as part of that workshop. Our comments are contained withing the attached document.

Best regards, Sean Newsum Managing Director, Environmental Affairs Airlines for America

Attachment: www.arb.ca.gov/lists/com-attach/87-lcfs-wkshp-feb23-ws-VDVUZgBgVFgEYVQ7.pdf

Original File Name: A4A Comments on Potential Future Changes to the LCFS Program-FINAL 3-15-2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 14:39:28

## Comment 76 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Sam Last Name: Wade Email Address: sam@rngcoalition.com Affiliation: Coalition for Renewable Natural Gas

Subject: RNG Coalition's Comments on Feb 2022 LCFS Workshop Comment:

Please see our attached comments.

Attachment: www.arb.ca.gov/lists/com-attach/88-lcfs-wkshp-feb23-ws-BjRXYgQ1VjZQZwYz.pdf

Original File Name: 230315 RNG Coalition Comments on Feb LCFS Workshop FINAL.pdf

Date and Time Comment Was Submitted: 2023-03-15 14:50:56

### Comment 77 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Sylvia Last Name: Regan Email Address: sregan@biologicaldiversity.org Affiliation: Center for Biological Diversity

Subject: Center for Biological Diversity Comments on Potential Changes to the LCFS Program Comment:

Please accept the attached comments from Victoria Bogdan Tejeda, Shaye Wolf, PhD, and John Fleming, PhD of the Center for Biological Diversity regarding potential changes to the low carbon fuel standard program. Please note that the attached in addition to the attached comment letter, the Center for Biological Diversity also submits PDFs of the references cited therein, which may be downloaded from this box.com link: https://diversity.box.com/s/ho5pgjsfvswvcksa4g0jj9gigt18s7x8

Please let me know if there are any difficulties accessing these documents. The size of these files exceeded the limits of this portal. Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/90-lcfs-wkshp-feb23-ws-ATNcaQZYWToANVQL.pdf

Original File Name: 23 03 15 LCFS Comment (CBD).pdf

Date and Time Comment Was Submitted: 2023-03-15 14:39:33

## Comment 78 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Andrew Last Name: Craig Email Address: acraig@calbioenergy.com Affiliation:

Subject: CalBio Comments on 2/22/2023 LCFS Workshop Comment:

Please see CalBio's comments on the February 22, 2023 LCFS Workshop attached.

Thanks, Andrew Craig

Attachment: www.arb.ca.gov/lists/com-attach/91-lcfs-wkshp-feb23-ws-UDMFYlQ5UWAGaQBv.pdf

Original File Name: CalBio Comments Feb 2023 LCFS workshop Final.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:04:57

## Comment 79 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Suncheth Last Name: Bhat Email Address: suncheth@evrealtyus.com Affiliation: EV Realty

Subject: EV Realty Comments on Feb 23 LCFS Workshop Comment:

CARB,

Please see attached comments on February 2023 LCFS Workshop.

Thanks,

Suncheth

Attachment: www.arb.ca.gov/lists/com-attach/92-lcfs-wkshp-feb23-ws-VDFSIgBeBSRVNgJj.pdf

Original File Name: EV Realty Comments on Feb 22 2023 Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:10:38

## Comment 80 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Connie Last Name: Cho Email Address: ccho@cbecal.org Affiliation: Refinery EJ Communities (CBE and APEN)

Subject: LCFS Comments - Environmental Justice for Refinery Communities Comment:

Hello,

Thank you for the opportunity to comment.

Please find attached the comments filed on behalf of Communities for a Better Environment and the Asian Pacific Environmental Network.

Best, Connie

Attachment: www.arb.ca.gov/lists/com-attach/93-lcfs-wkshp-feb23-ws-UyECYQZhWWNXP1Qx.pdf

Original File Name: Refinery EJ Communities CBE and APEN - Comment on LCFS Preliminary Draft 3.15.23.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:10:07

#### **Comment 81 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.**

First Name: Faraz Last Name: Rizvi Email Address: faraz@apen4ej.org Affiliation: Asian Pacific Environmental Network

Subject: Joint Environmental Justice Low Carbon Fuel Standard Letter Comment:

The undersigned environmental justice and environmental organizations write jointly to highlight grave concerns about the Preliminary Draft of Potential Regulatory Amendments to the Low Carbon Fuel Standard and Amendment Concepts ("Preliminary Draft"). While we will each submit individual organizational comment letters with further detail, the fates of our communities are linked. Without intervention, the Preliminary Draft will exacerbate harms to lower income communities and communities of color who are disproportionately overburdened by pollution from industrial agriculture, oil refining infrastructure, and fuel combustion at the tailpipe.

Attachment: www.arb.ca.gov/lists/com-attach/94-lcfs-wkshp-feb23-ws-UDpdNFE5VWgEdgJd.pdf

Original File Name: Joint Environmental Justice Low Carbon Fuel Standard Letter 3\_15 (1).pdf

Date and Time Comment Was Submitted: 2023-03-15 15:11:26

# Comment 82 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: adam Last Name: browning Email Address: abrowning@forummobility.com Affiliation: Forum Mobility

Subject: Forum Mobility comments to LCFS reform Comment:

Attached, please find Forum Mobility's comments on the February 2023 LCFS workshop.

Attachment: www.arb.ca.gov/lists/com-attach/95-lcfs-wkshp-feb23-ws-AmRQOVEiWX9XPANc.pdf

Original File Name: Forum LCFS Letter\_March 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:06:40

## Comment 83 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Brady Last Name: Borcherding Email Address: bborcherding@fce.com Affiliation: FuelCell Energy Inc

Subject: Comments by FuelCell Energy regarding changes to the LCFS Comment:

Attached please find comments prepared by FuelCell Energy regarding potential changes to the Low Carbon Fuel Standard.

Attachment: www.arb.ca.gov/lists/com-attach/96-lcfs-wkshp-feb23-ws-BWMCZwBkAg4GbABj.pdf

Original File Name: FCE LCFS Comments March 15.docx.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:16:51

## Comment 84 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Rebecca Last Name: OBrien Email Address: rebeccaobrien@tnrenewableenergy.com Affiliation: TNRE

Subject: TNRE Comments Low Carbon Fuel Standard February 22 Workshop Comment:

TNRE would like to express our continued support for the LCFS as a transformational, technology-neutral and performance-based program that has helped to rapidly usher in a wide array of low carbon fuels for California's transportation market. Our comments and recommendations are included in the attached letter.

Attachment: www.arb.ca.gov/lists/com-attach/97-lcfs-wkshp-feb23-ws-UycFbVAjVWNRCABs.pdf

Original File Name: TNRE LCFS Feb 22 Workshop Comment Letter Final.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:17:17

## Comment 85 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Debbie Last Name: Meeks Email Address: deborah.meeks@shell.com Affiliation:

Subject: Comments on Proposed LCFS Program Changes Comment:

Dear CARB:

Please find attached Shell's comments regarding the February 22 workshop on proposed LCFS changes.

Thank you, Debbie Meeks Manager - US West Coast Policy and Business Coordination

Attachment: www.arb.ca.gov/lists/com-attach/98-lcfs-wkshp-feb23-ws-AnEBb1YyBzgHbVIN.pdf

Original File Name: Shell Comments LCFS March 15 2023 FINAL.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:09:19

## Comment 86 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Martina Last Name: Simpkins Email Address: msimpkins@anewclimate.com Affiliation:

Subject: LCFS - proposed changes Comment:

Anew Climate, LLC Comments Regarding the February 22, 2023 Low Carbon Fuel Standard Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard

Attachment: www.arb.ca.gov/lists/com-attach/99-lcfs-wkshp-feb23-ws-VzYAaAFlAiZVDAlq.pdf

Original File Name: Anew Comments LCFS Workshop.March15.2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:22:23

## Comment 87 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Tanya Last Name: DeRivi Email Address: tderivi@wspa.org Affiliation: WSPA

Subject: WSPA Comments on Feb2023 LCFS Preliminary Discussion Draft and Workshop Comment:

Please see attached.

Attachment: www.arb.ca.gov/lists/com-attach/100-lcfs-wkshp-feb23-ws-UjRUOwNsBzUDaVMM.pdf

Original File Name: Final WSPA LCFS Comment Letter February 2023 Workshop 3-15-2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:29:21

## Comment 88 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Margaret Last Name: Boelter Email Address: mboelter@zeemsolutions.com Affiliation: Zeem Solutions

Subject: Re: Potential Future Changes to the LCFS Program Comment:

Comments Attached

Attachment: www.arb.ca.gov/lists/com-attach/101-lcfs-wkshp-feb23-ws-U2FSZ1JjUzMANwUw.pdf

Original File Name: 230315\_LCFSCommentsZeem.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:29:47

## Comment 89 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Akhil Last Name: Chhabra Email Address: akhil.chhabra@monolith-corp.com Affiliation: Monolith

Subject: Monolith Materials Comments Comment:

Please see our comments in the attached file.

Attachment: www.arb.ca.gov/lists/com-attach/102-lcfs-wkshp-feb23-ws-BWYFbFc7WWdQMwdp.pdf

Original File Name: Comment\_Letter\_Final.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:34:01

## Comment 90 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Michael Last Name: Boccadoro Email Address: mboccadoro@westcoastadvisors.com Affiliation: Dairy Cares

Subject: Dairy Cares Comments on the 2-22-23 Workshop on Potential Changes to the LCFS Comment:

Please see comments attached. Thank you!

Attachment: www.arb.ca.gov/lists/com-attach/103-lcfs-wkshp-feb23-ws-W2kBNFdmUzMGMVNm.pdf

Original File Name: 230315 Dairy Cares Comments on the 2-22-23 LCFS Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:39:31

## Comment 91 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Adrian Last Name: Martinez Email Address: amartinez@earthjustice.org Affiliation:

Subject: LACETB Comments Comment:

Please find the attached comments of the LA County Electric Truck and Bus Coalition. We look forward to working together to advance transportation electrification in LA County.

Attachment: www.arb.ca.gov/lists/com-attach/104-lcfs-wkshp-feb23-ws-AGxSNVQ2ACdWMlU2.pdf

Original File Name: LACTBC Comment on LCFS FInal 3-15-2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:44:59

## Comment 92 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Robert Last Name: Coviello Email Address: robert.coviello@bunge.com Affiliation: Bunge

Subject: Bunge's Comments Regarding Potential Changes to the LCFS Comment:

Please find Bunge's comments attached.

Attachment: www.arb.ca.gov/lists/com-attach/105-lcfs-wkshp-feb23-ws-UjAAcwRrVGAHZAdY.pdf

Original File Name: Bunge Comments re February 2023 Public Workshop on Potential Changes to the LCFS.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:47:16

## Comment 93 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Laurel Last Name: Moorhead Email Address: lmoorhead@transferflow.com Affiliation: Transfer Flow, Inc.

Subject: Transfer Flow, Inc.'s Public Comments on CARB's LCFS Comment:

Please see the attached pdf file containing Transfer Flow Inc.'s Public Comments on The California Air Resources Board's Low Carbon Fuel Standard.

Attachment: www.arb.ca.gov/lists/com-attach/106-lcfs-wkshp-feb23-ws-AjBUYgQ3UjIDKFdn.pdf

Original File Name: 2023-03-15\_LCFS\_Public Comment.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:46:36

## Comment 94 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Laurel Last Name: Moorhead Email Address: lmoorhead@transferflow.com Affiliation: Transfer Flow, Inc.

Subject: Transfer Flow, Inc.'s Public Comments on CARB's LCFS Comment:

Please see the attached pdf file containing Transfer Flow, Inc.'s Public Comments on The California Air Resources Board's Low Carbon Fuel Standard.

Attachment: www.arb.ca.gov/lists/com-attach/107-lcfs-wkshp-feb23-ws-UGJda1NgUjJSeQk5.pdf

Original File Name: 2023-03-15\_LCFS\_Public Comment.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:51:55

## Comment 95 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Chad Last Name: Frahm Email Address: chad.frahm@brightmark.com Affiliation: Brightmark

Subject: Brightmark comments to CARB LCFS Feb 22nd workshop Comment:

Brightmark comments to CARB LCFS Feb 22nd workshop.

Attachment: www.arb.ca.gov/lists/com-attach/108-lcfs-wkshp-feb23-ws-B2UGclw0BDAFa1Qg.pdf

Original File Name: Brightmark Comments to CARB Feb 22 2023 LCFS Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:58:11

## Comment 96 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Matt Last Name: Haynie Email Address: shayla@caliberstrat.com Affiliation: POET

Subject: POET's Comments to February 22, 2023 LCFS Workshop Comment:

Please find POET's comments attached.

Attachment: www.arb.ca.gov/lists/com-attach/109-lcfs-wkshp-feb23-ws-VTNUO1wzADJQOgZZ.pdf

Original File Name: Final 3.15.2023 POET LCFS Comments.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:59:18

# Comment 97 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Aidan Last Name: Renaghan Email Address: Arenaghan@summitutilities.com Affiliation:

Subject: Peaks Renewables Comments Comment:

Attached please find comments to the February LCFS workshop from Peaks Renewables.

Attachment: www.arb.ca.gov/lists/com-attach/110-lcfs-wkshp-feb23-ws-VzQFYlEiAzICWwdr.pdf

Original File Name: CARB LCFS Workshop Peaks Renewables Comments\_Final.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:02:31

## Comment 98 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Thad Last Name: Kurowski Email Address: tkurowski@tesla.com Affiliation: Tesla

Subject: Tesla Comments on Feb 22, 2023 LCFS Workshop Comment:

Please accept the attached on behalf of Tesla

Attachment: www.arb.ca.gov/lists/com-attach/111-lcfs-wkshp-feb23-ws-AjABNFRIBWUBNlJn.pdf

Original File Name: 230315 Tesla LCFS Comments re 02-23 workshop CLEAN FINAL.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:50:50

# Comment 99 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Robert Last Name: Parkhurst Email Address: rparkhurst@sierraviewsolutions.com Affiliation:

Subject: Indigo response to Feb 22 LCFS workshop Comment:

On behalf of Indigo Ag, please see our attached comments in response to the February 22 LCFS workshop.

Attachment: www.arb.ca.gov/lists/com-attach/113-lcfs-wkshp-feb23-ws-VTwFbV04UWtVNANs.pdf

Original File Name: Indigo response to Feb 22 LCFS workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:17:16

# Comment 100 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Todd Last Name: Trauman Email Address: todd@e-missioncontrol.com Affiliation:

Subject: e-Mission Control Comments on LCFS Amendment Proposals Comment:

e-Mission Control Comments on LCFS Amendment Proposals

Attachment: www.arb.ca.gov/lists/com-attach/114-lcfs-wkshp-feb23-ws-AmdUP1AyWFQHYghn.pdf

Original File Name: eMC Comments CA LCFS Rulemaking March 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 15:55:48

# Comment 101 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Jamie Last Name: Katz Email Address: jbkatz@leadershipcounsel.org Affiliation: LCJA

Subject: Joint Comments on Potential Changes to the Low Carbon Fuel Standard Program Comment:

Attached

Attachment: www.arb.ca.gov/lists/com-attach/115-lcfs-wkshp-feb23-ws-UzlXPgBoVmtXJQNc.pdf

Original File Name: Joint Comments on Potential Changes to the Low Carbon Fuel Standard Program.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:12:11

## Comment 102 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Asher Last Name: Goldman Email Address: asherg@wharton.upenn.edu Affiliation:

Subject: Comments on Amendments to California LCFS Program Comment:

Attached are my comments on the most recent public workshop hosted by CARB on the future of the LCFS program. Included here are changes I would like to see included in the upcoming rulemaking process. I look forward to working with CARB on this!

Attachment: www.arb.ca.gov/lists/com-attach/116-lcfs-wkshp-feb23-ws-VDhUMV06UXEAWVIx.pdf

Original File Name: LCFS Comment Letter\_March 2023\_NNP.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:22:41

## Comment 103 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Jin Wook Last Name: Ro Email Address: jwro@ucdavis.edu Affiliation: University of California Davis

Subject: Comments to LCFS Workshop (Feb 22, 2023) Comment:

Please see the attached comments on the LCFS Workshop.

Attachment: www.arb.ca.gov/lists/com-attach/117-lcfs-wkshp-feb23-ws-VCEAZVI3WVVQJIQ7.pdf

Original File Name: UCD Policy Institute Feb 22 Workshop Comment.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:23:54
# Comment 104 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Jessica Last Name: Hoffmann Email Address: jwhoffmann@rpmgllc.com Affiliation: RPMG

Subject: RPMG Comment Letter - Feb 22 2023 LCFS Workshop Comment:

Attached RPMG Comment Letter

Attachment: www.arb.ca.gov/lists/com-attach/118-lcfs-wkshp-feb23-ws-WigBd1c7ADQKUwRn.pdf

Original File Name: RPMG Comment Letter - Feb 22 2023 LCFS Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:26:32

# Comment 105 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Michael Last Name: McAdams Email Address: michael@abfa.org Affiliation:

Subject: ABFA comments on LCFS Proposal Comment:

Please see enclosed.

Attachment: www.arb.ca.gov/lists/com-attach/119-lcfs-wkshp-feb23-ws-VjdSNlA3WWsBWFc0.pdf

Original File Name: ABFA CARB Comments with Attachments- 3-15-23 - FINAL V2.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:31:14

# Comment 106 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Neil Last Name: Koehler Email Address: neil.koehler@kbe-llc.com Affiliation: Renewable Fuels Association

Subject: RFA comments on February 22, 2023 LCFS workshop Comment:

Attached are the RFA comments to the LCFS workshop held February 22, 2023.

Attachment: www.arb.ca.gov/lists/com-attach/120-lcfs-wkshp-feb23-ws-VCZQMAFhUl5ROwNg.pdf

Original File Name: RFA LCFS Comments 03152023.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:34:43

# Comment 107 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Andrew Last Name: Foster Email Address: andy.foster@aemetis.com Affiliation: Aemetis, Inc.

Subject: February 2023 LCFS Workshop - Comments Comment:

Please find attached comments regarding the February 2023 LCFS Workshop from Aemetis, Inc.

Attachment: www.arb.ca.gov/lists/com-attach/121-lcfs-wkshp-feb23-ws-BmBRMgFiU3IKeVU0.pdf

Original File Name: February 2023 Workshop Comments - Aemetis.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:39:23

# Comment 108 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Holly Last Name: Yanai Email Address: hyanai@divertinc.com Affiliation:

Subject: Divert Inc Comments Comment:

Good Afternoon -

Please find Divert's comments attached for the February 22, 2023 public workshop regarding changes to the LCFS Program.

Best,

Holly Yanai

Attachment: www.arb.ca.gov/lists/com-attach/122-lcfs-wkshp-feb23-ws-Uj9VMlckAjIAblQL.pdf

Original File Name: March 15, 2023 CARB LCFS Comments.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:42:40

# Comment 109 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Steve Last Name: Compton Email Address: steve@sevanabioenergy.com Affiliation:

Subject: LCFS workshop comments Comment:

Please see our comments attached, we appreciate your efforts and look forward to further dialogue and enhancements of the LCFS.

Attachment: www.arb.ca.gov/lists/com-attach/123-lcfs-wkshp-feb23-ws-AnFcPwN0WGpQOAhp.pdf

Original File Name: Sevana CARB\_Comments 03.15.2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:44:07

### Comment 110 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Cassandra Last Name: Farrant Email Address: cfarrant@ampamericas.com Affiliation:

Subject: Comments on the February 22, 2023, Public Workshop to Discuss Potential Changes to LCFS Comment:

Amp America appreciates the opportunity to submit comments in response to the February 22, 2023, Public Workshop to Discuss Potential Changes to the LCFS. Please see our comments attached.

Attachment: www.arb.ca.gov/lists/com-attach/124-lcfs-wkshp-feb23-ws-AGFcN10sU18KYFMw.pdf

Original File Name: Amp LCFS February 2023 Workshop Comment Letter vF.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:22:14

# Comment 111 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Leticia Last Name: Phillips Email Address: leticia@unica.com.br Affiliation: UNICA - Brazilian Sugarcane Industry Ass

Subject: UNICA Comments Comment:

Please see attached UNICA comments about the February 22, 2023, workshop. Thank you. Leticia

Attachment: www.arb.ca.gov/lists/com-attach/125-lcfs-wkshp-feb23-ws-AGMFYl0uVGUCW1Q3.pdf

Original File Name: CARB Comments 031523 - UNICA.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:49:22

# Comment 112 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Dan Last Name: Evans Email Address: dan@promusenergy.com Affiliation: Promus Energy

Subject: Comments on Feb 2023 LCFS Workshop Comment:

Please see comments attached.

Attachment: www.arb.ca.gov/lists/com-attach/126-lcfs-wkshp-feb23-ws-ViZdKVM9UW8GdQh7.pdf

Original File Name: Promus Energy LCFS February Workshop Comments 3.15.23.pdf

Date and Time Comment Was Submitted: 2023-03-15 17:11:18

# Comment 113 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Quentin Last Name: Foster Email Address: Quentin.Foster@hcycle.com Affiliation: H-Cycle LLC

Subject: Comments for LCFS Workshop on February 22, 2023 Comment:

Please see attached PDF for comments.

Thanks!

Attachment: www.arb.ca.gov/lists/com-attach/127-lcfs-wkshp-feb23-ws-BmUCZQFyBTRWDwl6.pdf

Original File Name: CARB Staff Presentation\_H Cycle Comment\_031523 copy.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:55:52

# Comment 114 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Jonathan Last Name: Hirte Email Address: jonathan.hirte@dteenergy.com Affiliation:

Subject: DTE Vantage Comments on Feb 22 2023 LCFS Public Workshop Comment:

Please see attached for DTE Vantage's comment letter on the Feb 22, 2023 LCFS workshop.

Attachment: www.arb.ca.gov/lists/com-attach/128-lcfs-wkshp-feb23-ws-UDQCcFA0UV0Hdwdm.pdf

Original File Name: DTE Vantage LCFS Comment Letter RE 2-22-23 Public Workshop FINAL.pdf

Date and Time Comment Was Submitted: 2023-03-15 17:17:22

# Comment 115 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Peter Last Name: Drasher Email Address: pdrasher@blackbearassets.com Affiliation: Black Bear Env. Asset Advisors

Subject: Comment letter LCFS Workshop Feb 23 Comment:

Please see attached comment letter

Attachment: www.arb.ca.gov/lists/com-attach/129-lcfs-wkshp-feb23-ws-VjRdN1ExWGgDblQL.pdf

Original File Name: Black Bear letter to CARB 03.15.23.pdf

Date and Time Comment Was Submitted: 2023-03-15 17:28:56

# Comment 116 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Joseph Last Name: Turquie Email Address: joe@beyond-energy.com Affiliation: Beyond Energy

Subject: Beyond Energy comments for Feb23 LCFS Workshop Comment:

Please see comments in attached document.

Attachment: www.arb.ca.gov/lists/com-attach/130-lcfs-wkshp-feb23-ws-WzkCYVYuU29XPwBk.pdf

Original File Name: Beyond Energy Comments -- 230222 LCFS Worskhop.pdf

Date and Time Comment Was Submitted: 2023-03-15 17:38:50

# Comment 117 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Suzanne Last Name: Hunt Email Address: suzanne.hunt@generatecapital.com Affiliation: Generate Capital, PBC

Subject: Comments regarding the Low Carbon Fuel Standard February 2023 Workshop Comment:

Dear CARB Leadership and Staff, We respectfully submit the comments attached in response to the February LCFS workshop. Best Regards, Suzanne Hunt

Attachment: www.arb.ca.gov/lists/com-attach/131-lcfs-wkshp-feb23-ws-BmFRMgBvUWcEcFIz.pdf

Original File Name: Generate Comments to CARB re potential LCFS changes FINAL 3.15.23.pdf

Date and Time Comment Was Submitted: 2023-03-15 16:57:51

# Comment 118 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Laura Last Name: Berland-Shane Email Address: laura@blueplanetsystems.com Affiliation: Blue Planet

Subject: Blue Planet comments on February LCFS workshop Comment:

Please find our comment letter attached.

Attachment: www.arb.ca.gov/lists/com-attach/132-lcfs-wkshp-feb23-ws-VDZcNl0pU2UKUwNz.pdf

Original File Name: Blue Planet February 2023 LCFS workshop comments.pdf

Date and Time Comment Was Submitted: 2023-03-15 17:57:56

#### Comment 119 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Graham Last Name: Noyes Email Address: graham@lcfcoalition.com Affiliation: Low Carbon Fuels Coalition

Subject: Recommendation to Integrate Climate Smart Farming Practices into LCFS Comment:

This comment presents a limited scope proposal designed as a first step toward recognizing climate smart agriculture ("CSA") within the Low Carbon Fuel Standard ("LCFS"). This proposal is supported by a broad group of industry stakeholders including farmers, low carbon fuel producers, non-governmental organizations, and trade associations.

In addition to the Low Carbon Fuels Coalition, the following companies and organizations have expressed support for this letter: Adelante Consulting, Bayer, Bushel, Clean Fuels Alliance America, Farmers Business Network, Fueling Sustainability, Gevo, Green Plains, National Corn Growers Association and the Renewable Fuels Association.

We are recommending that the California Air Resources Board recognize certain farming practices that enable feedstock to be produced in a less carbon intensive manner. The full comment is attached. Thank you for the opportunity to provide this comment. We are available for further discussions on this issue.

Best Regards,

Graham Noyes Executive Director Low Carbon Fuels Coalition www.lcfcoalition.com graham@lcfcoalition.com

Attachment: www.arb.ca.gov/lists/com-attach/133-lcfs-wkshp-feb23-ws-BmxUPVU9VmsDcVcI.pdf

Original File Name: Joint Soil Carbon Letter 15 March 2023 FINAL w Exhibits.pdf

Date and Time Comment Was Submitted: 2023-03-15 18:01:10

# Comment 120 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Patrick Last Name: Serfass Email Address: info@americanbiogascouncil.org Affiliation:

Subject: Comments from American Biogas Council regarding changes to LCFS Comment:

Please see the attached letter for submitted comments from the American Biogas Council.

Attachment: www.arb.ca.gov/lists/com-attach/134-lcfs-wkshp-feb23-ws-BWRVMVc1AAwFYFAx.pdf

Original File Name: ABC\_CARB Comments March 2023\_FINAL.pdf

Date and Time Comment Was Submitted: 2023-03-15 18:12:06

#### Comment 121 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Russell Last Name: Dyk Email Address: russ.dyk@btr.energy Affiliation: BTR Energy

Subject: Comments to CARB's February 22nd, 2023 Workshop Comment:

We are pleased to provide comments on potential changes to California's Low Carbon Fuel Standard ("LCFS") program. We appreciate the opportunity to engage with Air Resources Board ("ARB") staff during this process. These comments build and expand upon comments and analysis that we provided to ARB on June 23rd, 2022, August 9th, 2022 and December 21st, 2022.

Attachment: www.arb.ca.gov/lists/com-attach/135-lcfs-wkshp-feb23-ws-VjUHYFwvAzIGX1Ix.pdf

Original File Name: CARB Comment Letter\_Feb 22\_Workshop\_03.15.2023\_BTR.pdf

Date and Time Comment Was Submitted: 2023-03-15 18:14:18

# Comment 122 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: John Last Name: Plaza Email Address: john@skynrg.com Affiliation:

Subject: SkyNRG comments on CARB Public Workshop to Discuss Potential Changes to the LCFS Comment:

Please find attached SkyNRG's feedback on CARB's February 22, 2023 Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard.

Attachment: www.arb.ca.gov/lists/com-attach/137-lcfs-wkshp-feb23-ws-UyBWO1UtBDkEcAlu.pdf

Original File Name: SkyNRG Americas CARB LCFS Comments (2.22.23 Workshop) March 15th, 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 18:41:31

# Comment 123 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Andrew Last Name: McCarthy Email Address: andrew.mccarthy@cavanaughsolutions.com Affiliation: Cavanaugh and Associates, P.A.

Subject: Cavanaugh CARB Comments March 2023 Comment:

Please see our organization's comments in the PDF attached to this submittal.

Thank you

Andrew McCarthy Project Manager Cavanaugh & Associates, P.A.

Attachment: www.arb.ca.gov/lists/com-attach/138-lcfs-wkshp-feb23-ws-UTJSNVYhVGYEbAVk.pdf

Original File Name: Cavanaugh CARB Comments March 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 18:21:25

# Comment 124 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Andrew Last Name: Dick Email Address: Andrew.Dick@electrifyamerica.com Affiliation: Electrify America

Subject: Comments on February 22, 2023 LCFS workshop Comment:

Please find our comment letter attached. Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/139-lcfs-wkshp-feb23-ws-VzIAZwFfAjJVPAlk.pdf

Original File Name: EA Comments\_Feb. 2023 LCFS Workshop\_3.15.23.pdf

Date and Time Comment Was Submitted: 2023-03-15 19:10:49

## Comment 125 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Bryan Last Name: Sievers Email Address: bsievers@roesleinae.com Affiliation: Roeslein Alternative Energy

Subject: Comments Regarding Potential Changes to the Low Carbon Fuel Standard Comment:

Thank you for the opportunity to submit comments regarding the Low Carbon Fuel Standard and the proposed changes.

Sincerely, Bryan Sievers, Director of Government Relations

Attachment: www.arb.ca.gov/lists/com-attach/140-lcfs-wkshp-feb23-ws-VyUHYABkBwtWPAZl.pdf

Original File Name: RAE LCFS Comments\_03152023\_Executed.pdf

Date and Time Comment Was Submitted: 2023-03-15 19:34:51

# Comment 126 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Glenda Last Name: Chen Email Address: glchen@edf.org Affiliation: EDF

Subject: Potential LCFS changes: jet fuel Comment:

Attached please find commentary on behalf of Environmental Defense Fund. Your attention and engagement are much appreciated!

Attachment: www.arb.ca.gov/lists/com-attach/141-lcfs-wkshp-feb23-ws-BWAGZARjBQkGZgVg.pdf

Original File Name: EDF Feedback LCFS Workshop 22 Feb 2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 19:37:31

# Comment 127 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Jonathan Last Name: Vacari Email Address: jonathan.vacari@bsbios.com Affiliation: BSBIOS

Subject: BSBIOS Comments to LCFS Public Workshop on Potential Changes to the LCFS Program Comment:

Please, find our comments attached.

Attachment: www.arb.ca.gov/lists/com-attach/142-lcfs-wkshp-feb23-ws-UTNVIABjAjhSOwBz.pdf

Original File Name: BSBIOS comments on Potential Changes to the LCFS Program presented at the Feb 22 Public Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 19:44:44

# Comment 128 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Leeor Last Name: Alpern Email Address: lalpern@worldenergy.net Affiliation: World Energy

Subject: World Energy Comments on the February 22, 2023, LCFS Workshop Comment:

Attached please find our comments. Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/143-lcfs-wkshp-feb23-ws-AjAANVFgUTEFMgUw.pdf

Original File Name: 230315 WE CARB Comments Final .pdf

Date and Time Comment Was Submitted: 2023-03-15 20:07:55

# Comment 129 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Floyd Last Name: Vergara Email Address: FVergara@cleanfuels.org Affiliation: Clean Fuels Alliance America

Subject: Clean Fuels and CABA Comments on Feb 23 LCFS Workshop Comment:

Enclosed are joint comments by Clean Fuels Alliance America and the California Advanced Biofuels Alliance for CARB's consideration.

Attachment: www.arb.ca.gov/lists/com-attach/144-lcfs-wkshp-feb23-ws-WzhdN1QwWGpWPgRb.pdf

Original File Name: Clean Fuels\_CABA Comments CA LCFS Workshop\_February 2023 (FINAL\_with Attachment 1).pdf

Date and Time Comment Was Submitted: 2023-03-15 20:12:46

# Comment 130 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: John Last Name: Thornton Email Address: john@CleanFuture.us Affiliation: CleanFuture, Inc.

Subject: Comments to LCFS Workshop of 22 Feb 2023 Comment:

Please see the attached comments on the LCFS Workshop.

Attachment: www.arb.ca.gov/lists/com-attach/145-lcfs-wkshp-feb23-ws-B2RdN105WGoFbQBm.pdf

Original File Name: CleanFuture Comment RE LCFS Workshop 22 Feb 2023 final.pdf

Date and Time Comment Was Submitted: 2023-03-15 20:24:41

# Comment 131 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Alexey Last Name: Rostapshov Email Address: rostapshovalexey@johndeere.com Affiliation:

Subject: Comments Re: 2/22/2023 Public Workshop to Discuss Potential Changes to the LCFS Comment:

Please see attached document.

Attachment: www.arb.ca.gov/lists/com-attach/146-lcfs-wkshp-feb23-ws-AmgGb1E4Um9QCQVh.pdf

Original File Name: John Deere Comments RE February 2023 CARB Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 20:26:42

#### Comment 132 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Ivor Last Name: Castelino Email Address: ivor.castelino@bloomenergy.com Affiliation:

Subject: Bloom Energy Comments to CARB LCFS Proposed Changes Comment:

Dear Ms. Laskowski,

Thank you for the opportunity to submit comments in response to the February 22, 2023 Public Workshop regarding potential changes to the Low Carbon Fuel Standard ("LCFS") program.

Please find attached our comments. We look forward to working together with CARB and all stakeholders to continue the success of the LCFS program.

Thank you, Bloom Energy

Attachment: www.arb.ca.gov/lists/com-attach/147-lcfs-wkshp-feb23-ws-AGMBaFwwBTsLaAVr.pdf

Original File Name: Comments of Bloom Energy re CARB LCFS Program Proposed Changes.pdf

Date and Time Comment Was Submitted: 2023-03-15 20:31:33

# Comment 133 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Philip Last Name: Sheehy Email Address: philip.sheehy@icf.com Affiliation:

Subject: ICF Analysis of Low Carbon Fuel Targets in California Comment:

Please see attached.

Attachment: www.arb.ca.gov/lists/com-attach/148-lcfs-wkshp-feb23-ws-UzpWMwNkAg5VMAlm.pdf

Original File Name: ICF Comment Letter CARB LCFS Workshop Feb23.pdf

Date and Time Comment Was Submitted: 2023-03-15 21:10:07

### Comment 134 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Chris Last Name: Gould Email Address: Chris.Gould@CRC.com Affiliation:

Subject: CRC Comments on CARB Potential LCFS Regulation Comment:

We are writing to provide comments on the CARB Preliminary Discussion Draft of Potential LCFS Regulation Amendments and February 22, 2023 LCFS Workshop. Please see the attached letter.

Attachment: www.arb.ca.gov/lists/com-attach/149-lcfs-wkshp-feb23-ws-B2RQJFIwWFRXMghn.pdf

Original File Name: CRC Comments on Proposed LCFS Changes 03152023.pdf

Date and Time Comment Was Submitted: 2023-03-15 21:07:33

# Comment 135 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: John Last Name: Jones Email Address: john.jones@fidelisinfra.com Affiliation: Fidelis New Energy, LLC

Subject: Fidelis New Energy, LLC. Comments on Potential Changes to Low Carbon Fuel Standard Comment:

Fidelis New Energy appreciates the opportunity to comment on the February 2023 LCFS Workshop, and applauds the California Air Resources Board for the continue success of the LCFS program.

Attachment: www.arb.ca.gov/lists/com-attach/150-lcfs-wkshp-feb23-ws-UjRSPQNmUWdVP1U8.pdf

Original File Name: Fidelis New Energy LLC Comments on LCFS Workshop 2023 02 22.pdf

Date and Time Comment Was Submitted: 2023-03-15 21:14:59

# Comment 136 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Teresa Last Name: Bui Email Address: tbui@pacificenvironment.org Affiliation: Pacific Environment

Subject: Pacific Environment Comments on Potential Changes to LCFS Comment:

Please see attached for our comment letter, thank you.

Attachment: www.arb.ca.gov/lists/com-attach/152-lcfs-wkshp-feb23-ws-AXFdPgdZAj1QNQdh.pdf

Original File Name: PE LCFS comment to CARB.pdf

Date and Time Comment Was Submitted: 2023-03-15 21:31:00

#### Comment 137 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Rock Last Name: Zierman Email Address: rock@cipa.org Affiliation: California Independent Petroleum Assoc.

Subject: CIPA Comments on Public Workshop to Discuss Potential Changes to the LCFS Comment:

Good evening, Please find attached the California Independent Petroleum Association's comments regarding CARB's Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard.

Sincerely, Rock Zierman CEO California Independent Petroleum Association

Attachment: www.arb.ca.gov/lists/com-attach/153-lcfs-wkshp-feb23-ws-WjlXOFQlUmBVDARo.pdf

Original File Name: CIPA LCFS Comments 3-15-23.pdf

Date and Time Comment Was Submitted: 2023-03-15 21:39:00

# Comment 138 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: William Last Name: Faulkner Email Address: will@carbon-acumen.com Affiliation: Carbon Acumen

Subject: LCFS Ratchet/Acceleration Mechanism Comment:

Please see the attached pdf.

Will Faulkner

Attachment: www.arb.ca.gov/lists/com-attach/154-lcfs-wkshp-feb23-ws-UTJUMwZ1U2IFbANt.pdf

Original File Name: Carbon Acumen February 22, 2023 LCFS Workshop Comments.pdf

Date and Time Comment Was Submitted: 2023-03-15 21:45:52

# Comment 139 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Stephen Last Name: Rosenblum Email Address: pol1@rosenblums.us Affiliation: Climate Action California& 350Sacramento

Subject: Public Workshop on Potential Changes to LCFS Comment:

Please accept this comment letter from Climate Action California and 350 Sacramento. File upload failed the first time

Attachment: www.arb.ca.gov/lists/com-attach/156-lcfs-wkshp-feb23-ws-VzRVMlc1VloGMwk8.pdf

Original File Name: CAC\_350Sac\_LCFS3\_15\_23.pdf

Date and Time Comment Was Submitted: 2023-03-15 21:42:40
# Comment 140 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Jessi Last Name: Davis Email Address: jdavis6@socalgas.com Affiliation: SoCalGas

Subject: SoCalGas Comments on LCFS Workshop Comment:

SoCalGas Comments on LCFS Workshop

Attachment: www.arb.ca.gov/lists/com-attach/157-lcfs-wkshp-feb23-ws-WyhcNQZkAjALYQlu.pdf

Original File Name: SoCalGas Comments on CARBs February 22, 2023 LCFS Workshop.pdf

Date and Time Comment Was Submitted: 2023-03-15 21:49:38

# Comment 141 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Sam Last Name: Uden Email Address: sam@csgcalifornia.com Affiliation:

Subject: Role of biomass and BECCS in CATS model Comment:

Attached.

Attachment: www.arb.ca.gov/lists/com-attach/158-lcfs-wkshp-feb23-ws-BWkCZwZhU3MHXgFi.docx

Original File Name: LCFS\_Comment letter on biomass\_CSG\_March 2023.docx

Date and Time Comment Was Submitted: 2023-03-15 22:47:16

# Comment 142 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Sasan Last Name: Saadat Email Address: ssaadat@earthjustice.org Affiliation:

Subject: Earthjustice Comments on Feb. 22 Workshop Comment:

Thank you for considering our attached comments.

Attachment: www.arb.ca.gov/lists/com-attach/159-lcfs-wkshp-feb23-ws-Wz5VMlwvVXIEagRu.pdf

Original File Name: Earthjustice Mar 15 LCFS comments.pdf

Date and Time Comment Was Submitted: 2023-03-15 22:55:24

# Comment 143 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Jennifer Last Name: LeRow Email Address: jlerow@brayafuels.com Affiliation: Braya Renewable Fuels

Subject: Braya Comments to CARB RE Proposed Changes to the LCFS\_2023.03.15 Comment:

Thank you!

Attachment: www.arb.ca.gov/lists/com-attach/160-lcfs-wkshp-feb23-ws-BmRUIFY2VH4HYFIN.pdf

Original File Name: Braya Comments to CARB RE Proposed Changes to the LCFS\_2023.03.15\_FINAL.pdf

Date and Time Comment Was Submitted: 2023-03-15 23:07:32

### Comment 144 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Patrick Last Name: Foody Email Address: pat.foody@iogen.com Affiliation: iogen Corporation

Subject: Comment by iogen on Feb 22, 2023 LCFS Workshop Comment:

Please find attached comments by iogen on the Feb 22, 2023 LCFS workshop. Our comments are primarily focused on provisions that govern the use of biomethane as a feedstock for hydrogen and as they relate to the Renewable Hydrogen Refiner Credit Program. We appreciate the opportunity to comment. Sincerely, Patrick Foody Chief Development Officer

Attachment: www.arb.ca.gov/lists/com-attach/161-lcfs-wkshp-feb23-ws-BWYHYFckU2ICWwJk.pdf

Original File Name: CARB Feb 22, 2023 Workshop commentary by iogen 3-15-2023.pdf

Date and Time Comment Was Submitted: 2023-03-15 23:32:00

### Comment 145 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: alan Last Name: thelen Email Address: athelen\_99@yahoo.com Affiliation: REal World

Subject: banning natural gas appliances after 2027 Comment:

This makes no sense from a nox reduction standpoint. In order to keep up with the electricity demands of the replacement electrical appliances and heaters, An add on of power plant capacity must be done. The additional added power plant fossil fuel burning will cause even more nox out put. Natural gas is relatively clean burning, and readily available at a reason able rate. The cost of u using electricity is substantially higher an will continue to inflate in our present and future.

You are dictating rules that can't possibly implemented in your time frame. Stop the politically correct rule making. justify your decisions based on evidence. We trust but verify out here in reality land.

alan Thelen.

Attachment:

**Original File Name:** 

Date and Time Comment Was Submitted: 2023-03-16 11:50:39

### Comment 146 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: John Last Name: Van de Pol Email Address: redrockdairy92@gmail.com Affiliation:

Subject: Potential changes to the low carbon fuel standard Comment:

Dear Chair Randolph,

We would like to support the comments offered by Newtrient LLC on behalf of the dairy industry in response to the February 22, 2023, Public Workshop regarding potential changes to the Low Carbon Fuel Standard (LCFS).

Newtrient applauds the leadership the California Air Resources Board (CARB) is taking on climate change and appreciates being a part of this important dialogue surrounding potential changes to the Low Carbon Fuel Standard (LCFS). The dairy industry has answered the call to action and is embracing environmental responsibility - from family farms in California, to farms across America. By installing and utilizing biogas systems, farms are offering practical solutions to the challenges CARB seeks to address.

We would like to highlight our support of the following:

 $\cdot$  \$ We encourage CARB to adopt higher Carbon Intensity (CI) reductions.

• We urge CARB to reconsider elimination of Book and Claim.

 $\cdot$   $$\ensuremath{\mathbb{W}}\xspace$  We strongly oppose phasing out avoided methane emission crediting.

Additionally, we would ask that CARB do the following:

• Advocate For Ongoing Investment in Dairy Digester Methane Capture and Beneficial Use

- Update GREET Modelling
- · Oppose RNG Market Use Limitations
- Support Market Mechanism
- Reject Calls to Regulate Dairies.

ahead of formal rulemaking. We look forward to continuing to partner with the California dairy industry, CARB, and other stakeholders in the successful achievement of the State's climate goals, particularly the world leading short-lived climate pollutants (SLCP) target and programs. Greenhouse gas ("GHG") emissions have a global impact, and it is important that CARB demonstrate that its programs can harmonize environmental goals and protect the state's economy. This is particularly true of local economies in the disadvantaged communities the State says it will prioritize. California's dairy farm families and developers are striving to develop projects that not only reduce potent SLCP emissions, but also create opportunities for economic development that helps protect jobs and improve baseline environmental conditions in these communities.

Thank you for your consideration of these comments.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2023-03-16 13:28:28

### Comment 147 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Brent Last Name: Bouma Email Address: gallo@legacyfarmslp.com Affiliation:

Subject: Comments Regarding Potential Changes to the Low Carbon Fuel Standard Comment:

Dear Chair Randolph,

We would like to support the comments offered by Newtrient LLC on behalf of the dairy industry in response to the February 22, 2023, Public Workshop regarding potential changes to the Low Carbon Fuel Standard (LCFS).

Newtrient applauds the leadership the California Air Resources Board (CARB) is taking on climate change and appreciates being a part of this important dialogue surrounding potential changes to the Low Carbon Fuel Standard (LCFS). The dairy industry has answered the call to action and is embracing environmental responsibility - from family farms in California, to farms across America. By installing and utilizing biogas systems, farms are offering practical solutions to the challenges CARB seeks to address.

 $\cdot$  \$ We urge CARB to reconsider elimination of Book and Claim.

 $\cdot$   $$\ensuremath{\mathbb{W}}\xspace$  We strongly oppose phasing out avoided methane emission crediting.

Additionally, we would ask that CARB do the following: • Advocate For Ongoing Investment in Dairy Digester Methane Capture and Beneficial Use

- Update GREET Modelling
- · Oppose RNG Market Use Limitations
- Support Market Mechanism
- Reject Calls to Regulate Dairies.

We appreciate CARB's efforts to lead a robust stakeholder process ahead of formal rulemaking. We look forward to continuing to partner with the California dairy industry, CARB, and other stakeholders in the successful achievement of the State's climate goals, particularly the world leading short-lived climate pollutants (SLCP) target and programs. Greenhouse gas ("GHG") emissions have a global impact, and it is important that CARB demonstrate that its programs can harmonize environmental goals and protect the state's economy. This is particularly true of local economies in the disadvantaged communities the State says it will prioritize. California's dairy farm families and developers are striving to develop projects that not only reduce potent SLCP emissions, but also create opportunities for economic development that helps protect jobs and improve baseline environmental conditions in these communities.

Thank you for your consideration of these comments.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2023-03-16 16:01:45

### Comment 148 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Caleb Last Name: Herrema Email Address: caleb@ccdairy.net Affiliation:

Subject: LCFS Changes Comment:

Dear Chair Randolph,

We would like to support the comments offered by Newtrient LLC on behalf of the dairy industry in response to the February 22, 2023, Public Workshop regarding potential changes to the Low Carbon Fuel Standard (LCFS).

Newtrient applauds the leadership the California Air Resources Board (CARB) is taking on climate change and appreciates being a part of this important dialogue surrounding potential changes to the Low Carbon Fuel Standard (LCFS). The dairy industry has answered the call to action and is embracing environmental responsibility - from family farms in California, to farms across America. By installing and utilizing biogas systems, farms are offering practical solutions to the challenges CARB seeks to address.

 $\cdot$  \$ We urge CARB to reconsider elimination of Book and Claim.

 $\cdot$   $$\ensuremath{\mathbb{W}}\xspace$  We strongly oppose phasing out avoided methane emission crediting.

Additionally, we would ask that CARB do the following: • Advocate For Ongoing Investment in Dairy Digester Methane Capture and Beneficial Use

- Update GREET Modelling
- · Oppose RNG Market Use Limitations
- Support Market Mechanism
- Reject Calls to Regulate Dairies.

We appreciate CARB's efforts to lead a robust stakeholder process ahead of formal rulemaking. We look forward to continuing to partner with the California dairy industry, CARB, and other stakeholders in the successful achievement of the State's climate goals, particularly the world leading short-lived climate pollutants (SLCP) target and programs. Greenhouse gas ("GHG") emissions have a global impact, and it is important that CARB demonstrate that its programs can harmonize environmental goals and protect the state's economy. This is particularly true of local economies in the disadvantaged communities the State says it will prioritize. California's dairy farm families and developers are striving to develop projects that not only reduce potent SLCP emissions, but also create opportunities for economic development that helps protect jobs and improve baseline environmental conditions in these communities.

Thank you for your consideration of these comments.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2023-03-16 18:44:33

# Comment 149 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Ryan Last Name: Kenny Email Address: Ryan.Kenny@cleanenergyfuels.com Affiliation: Clean Energy

Subject: subject of comment Comment:

Please find our comments attached.

Attachment: www.arb.ca.gov/lists/com-attach/166-lcfs-wkshp-feb23-ws-BWZdN1E1VmQDa1AP.pdf

Original File Name: Clean Energy - LCFS Comment Letter Mar 2023 FINAL.pdf

Date and Time Comment Was Submitted: 2023-03-17 13:04:43

# Comment 150 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Fred Last Name: Ghatala Email Address: mailto:fghatala@advancedbiofuels.ca Affiliation: dvanced Biofuels Canada Association

Subject: subject of comment Comment:

Please find our comments attached.

Attachment: www.arb.ca.gov/lists/com-attach/167-lcfs-wkshp-feb23-ws-AWBUNgZxBzUCalQ3.pdf

Original File Name: AdvancedBiofuelsCanada\_combind-Attachments.pdf

Date and Time Comment Was Submitted: 2023-03-23 17:26:40

# Comment 151 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Julia Last Name: Levin Email Address: jlevin@bioenergyca.org Affiliation: Bioenergy Association of California

Subject: subject of comment Comment:

Please find our comments attached.

Attachment: www.arb.ca.gov/lists/com-attach/168-lcfs-wkshp-feb23-ws-B2VdMlQ6VWNSOgdi.pdf

Original File Name: BioenergyAssocCalifornia\_03152023.pdf

Date and Time Comment Was Submitted: 2023-03-23 17:28:19

# Comment 152 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Michelle Last Name: Orrock Email Address: michelle.orrock@bp.com Affiliation: BP America

Subject: subject of comment Comment:

Please find our comments attached.

Attachment: www.arb.ca.gov/lists/com-attach/169-lcfs-wkshp-feb23-ws-VDYFc1MzAD4EZwV3.pdf

Original File Name: bpAmerica\_03152023.pdf

Date and Time Comment Was Submitted: 2023-03-23 17:33:06

# Comment 153 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: Melodee Last Name: Black Email Address: melodee.black@sce.com Affiliation: Southern CA Edison

Subject: subject of comment Comment:

Please find our comments attached.

Attachment: www.arb.ca.gov/lists/com-attach/170-lcfs-wkshp-feb23-ws-VSZTNgZiV1tSZAAz.pdf

Original File Name: SCE\_03152023.pdf

Date and Time Comment Was Submitted: 2023-03-23 17:35:06

# Comment 154 for Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) - 1st Workshop.

First Name: CA Last Name: Hydrogen Council Email Address: helpline@arb.ca.gov Affiliation: CA Hydrogen Council

Subject: subject of comment Comment:

Comments on the California Air Resources Board Workshop

Attachment: www.arb.ca.gov/lists/com-attach/171-lcfs-wkshp-feb23-ws-W2oAMwM2BAgLbIIz.pdf

Original File Name: 154\_CAHydrogenCoalitionetal\_03242023.pdf

Date and Time Comment Was Submitted: 2023-04-06 09:49:36

There are no comments posted to Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (lcfs-wkshp-feb23-ws) that were presented during the Workshop at this time.