August 1, 2025

Washington Department of Ecology
Climate Pollution Reduction Program

Re: Comments in Response to Proposed Rulemaking CR-102, Updates to 173-424 WAC

We, the undersigned, on behalf of our members and supporters in Washington, welcome this opportunity to provide comments in response to the Department of Ecology's (Ecology) rulemaking to amend the Clean Fuel Standard (CFS). We urge Ecology to avoid locking in the same misguided policies as California and meaningfully reform the CFS to address the environmental injustices inherent in the program.

Washington's proposal mirrors California's Low Carbon Fuel Standard (LCFS), including by wrongly granting manure-derived biomethane (also known as "factory farm gas") preferential treatment under the program. LCFS is driving the demand for factory farm gas by allowing concentrated animal feeding operations (CAFOs), or factory farms, to participate by capturing methane emissions and producing factory farm gas, which generates credits to be sold to companies to pay for their climate pollution. Credits for this methane gas are the most lucrative because CAFOs receive an extra benefit for capturing methane emissions ("avoided methane credits"). However, this is based on the faulty premise that the methane emissions produced by CAFOs maintaining manure in massive lagoons is an unavoidable byproduct of livestock production, rather than the intentional choice that it is.[1] As a result, California's policy decision has created a perverse incentive for CAFO operators to continue or even intensify their polluting manure management practices that harm nearby communities, deliberately generating as much methane as possible, in order to capitalize on the hefty subsidies the program provides.

Despite Ecology's attempt to safeguard against this issue, maintaining a 15-year avoided-methane crediting for factory farm gas in its proposed rule is a doubling down of this widely criticized, ineffective approach to abating livestock emissions.[2] It will exacerbate existing pollution, fail to mitigate

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[1] Kenny Tortella, *Big Oil and Big Ag are teaming up to turn cow poop into energy — and profits. The math doesn't add up*, VOX (Jan. 14, 2025, 10:59 AM), https://www.vox.com/future-perfect/392881/dairy-biogas-manure-digester. ("…cow manure doesn't inherently contain methane. Rather, most large dairies store manure in lagoons — the cheapest form of manure management — which produces methane. Dairies with biodigesters aren't sucking greenhouse gases out of the air, like carbon dioxide removal projects; they're generating new methane they didn't need to generate in the first place and then trapping it.").

[2] Tony Briscoe, *Why some people think California's cow manure methane plan stinks*, L.A. TIMES (Dec. 5, 2023, 3:00 AM), https://www.latimes.com/environment/story/2023-12-05/californias-cow-manure-methane-plan-is-making-people-angry; Jeremy

animal agriculture's climate impacts, and propel even more growth of factory farms and factory farm gas production across the United States.

To achieve Washington's climate, public health, and environmental justice objectives, Ecology should not replicate California's ill-informed LCFS policy. Instead, it must eliminate the incentives for factory farm gas and stop paying these industrial polluters to capture needlessly-generated methane emissions.

Industrial Animal Agriculture's Environmental & Health Impacts on Communities

Industrial animal agriculture operations are a major polluter of the rural communities in which they are located, which are disproportionately communities of color as well as low-wealth communities, such as Washington's lower Yakima Valley.[3] Today's industrial-scale farms, housing thousands—or sometimes hundreds of thousands—of animals, generate as much as 1 billion tons of manure per year, which contaminates air, drinking water, and surface waters, directly impacting the health of the surrounding communities.[4] This is because manure from industrial dairy and hog operations, the main beneficiaries of CFS' incentives, is typically stored as liquid in giant manure lagoons and periodically applied to spray fields; it contains pathogens, antibiotic-resistant bacteria, and heavy metals.[5] Additionally, the sprayed, untreated waste can contaminate the soil and run off into waterways, causing harmful downstream effects.[6] For example, 29 percent of sampled wells in the Sumas Blaine aquifer in Whatcom County and over 20 percent of wells in the Yakima Valley exceed the nitrate maximum contaminant level; These counties also have the highest concentration of dairies in the state.[7] Nitrates cause a variety

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Martin, *Something Stinks: California Must End Manure Biomethane Accounting Gimmicks in its Low Carbon Fuel Standard*, THE EQUATION (Feb. 15, 2024), https://blog.ucs.org/jeremy-martin/something-stinks-california-must-end-manure-biomethane-accounting-gimmicks-in-its-low-carbon-fuel-standard/; Press Release, Food & Water Watch, 160+ Groups from Across U.S. Call on CARB to Amend Disastrous California Pollution Credit Trading Scheme (Feb. 15, 2024), https://www.foodandwaterwatch.org/2024/02/15/160-groups-from-across-u-s-call-on-carb-to-amend-disastrous-california-pollution-credit-trading-scheme/; Press Release, Leadership Counsel for Justice and Accountability, California Air Resources Board fails communities and state transportation goals with approval of staff's harmful approach to the Low Carbon Fuel Standard (Nov. 12, 2024), https://leadershipcounsel.org/california-air-resources-board-fails-communities-and-state-transportation-goals/.

[3] Letter from Friends of Toppenish Creek, Yakima County Air Quality Issues (Sept. 6, 2022), https://healthequity.wa.gov/sites/default/files/2022-09/Tab05b_Letters%20from%20Friends%20of%20Toppenish%20Creek_2022-09-15.pdf.

[4] U.S. ENV'T PROT. AGENCY, DETECTING AND MITIGATING THE ENVIRONMENTAL IMPACT OF FECAL PATHOGENS ORIGINATING FROM CONFINED ANIMAL FEEDING OPERATIONS: REVIEW (2005), https://nepis.epa.gov/Exe/ZyPDF.cgi/P10089B1.PDF?Dockey=P10089B1.PDF; Katherine L. Martin et al., *Terra Incognita: The Unknown Risks to Environmental Quality Posed by the Spatial Distribution and Abundance of Concentrated Animal Feeding Operations*, 642 SCI OF THE TOTAL ENV'T 887–93 (2018), https://research.fs.usda.gov/treesearch/56782.

[5] *See,* DANIEL HELLERSTEIN ET AL., AGRICULTURAL RESOURCES AND ENVIRONMENTAL INDICATORS 75-76 (2019), https://www.ers.usda.gov/webdocs/publications/93026/eib-208.pdf; V. Blanes-Vidal, et al., *Residential Exposure to Outdoor Air Pollution From Livestock Operations & Perceived Annoyance Among Citizens,* 40 ENV'T INT'L 44 (2012) (exposure to animal waste odor is "a significant degradation in [rural residents'] quality of life").

[6] ROLF U. HALDEN & KELLOGG J. SCHWAB, ENVIRONMENTAL IMPACT OF INDUSTRIAL FARM ANIMAL PRODUCTION (2008), https://law.lclark.edu/live/files/6699-environmental-impact-of-industrial-farm-animal; CARRIE HRIBAR, NAT'L ASS'N OF LOCAL BDS. OF HEALTH, UNDERSTANDING CONCENTRATED ANIMAL FEEDING OPERATIONS AND THEIR IMPACT ON COMMUNITIES 2-3 (2010), https://www.cdc.gov/nceh/ehs/docs/understanding_cafos_nalboh.pdf; U.S. Env't Prot. Agency, Lower Yakima Valley Groundwater, https://www.epa.gov/wa/lower-yakima-valley-groundwater (last updated June 16, 2025).

[7] *See*, Was. Dept. of Ecology, *Lower Yakima Valley Groundwater Management Area,* https://ecology.wa.gov/ecologys-work-near-you/river-basins-groundwater/lower-yakima-valley-groundwater-management-area (last visited July 1, 2025); WAS. DEPT. OF ECOLOGY, SUMAS-BLAINE AQUIFER LONG-TERM GROUNDWATER QUALITY MONITORING, 2009-2016 10 (2017), https://apps.ecology.wa.gov/publications/UIPages/documents/1703013.pdf; U.S. DEP'T OF AGRIC., 2022 CENSUS OF AGRIC.: TABLE 11. CATTLE AND CALVES - INVENTORY AND SALES: 2022 AND 2017 (2022) https://www.nass.usda.gov/Publications/AgCensus/2022/Full_Report/Volume_1,_Chapter_2_County_Level/Washington/st53_2_011_011.pdf.

of health issues including colorectal cancer, thyroid disease, neural tube defects, and methemoglobinemia (also known as blue baby syndrome).[8]

The manure also emits hazardous gases and particulate matter, causing toxic air emissions and noxious odor.[9] Studies have shown that people living near factory farms face higher risk and severity of respiratory illnesses, digestive issues, headaches, and other serious health conditions.[10] One study found that of the 15,900 deaths from food production in the U.S., 80 percent, or 12,700 deaths, are attributable to industrial animal production, and the majority of deaths—12,400 deaths each year—are attributable to ammonia acting as a PM2.5 precursor.[11] Environmental justice communities ultimately face a "triple jeopardy" where their proximity to sources of air pollution, disproportionate disease burdens, and psychosocial stressors compound to diminish their quality of life.[12]

In addition to being a major polluter of rural communities, animal agriculture is the top source of U.S. climate changing methane emissions, accounting for 36% of total U.S. methane emissions.[13] Emissions are caused by multiple sources, including enteric fermentation, feed production as well as animal waste (though methane emissions from manure are typically highest when it is stored in liquid systems such as manure lagoons).[14] Climate change also disproportionately affects communities of color, low-income communities, and other vulnerable populations, which are more likely to live in isolated rural areas, floodplains, fire-prone areas, coastlines, and other at-risk locations, putting them at risk of exposure to adverse climate change impacts and compounding the harm inflicted by factory farm pollution.[15]

Ultimately, the state of Washington should be doing so much more to protect communities from both industrial livestock pollution and climate change. The very least it could do is stop rewarding the perpetrators.

CFS—like LCFS—is Flawed

The CFS follows LCFS' lead and incorrectly assigns factory farm gas an extremely large negative Carbon Intensity (CI) score, which generates a large subsidy for the CAFOs and biogas operators.[16] This is because Ecology, like the California Air Resources Board (CARB), proposes to give participating

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[8] Mary Ward et al., *Drinking Water Nitrate and Human Health: An Updated Review*, 15 INT'L J. OF ENVTL RESEARCH AND PUBLIC HEALTH 1557 (2018), https://www.mdpi.com/1660-4601/15/7/1557.

[9] Maria C. Mirabelli et al., *Race, Poverty, and Potential Exposure of Middle-School Students to Air Emissions from Confined Swine Feeding Operations*, 114 ENV'T HEALTH PERSPECTIVES 591-596 (2006), https://doi.org/10.1289/ehp.8586; Ji-Young Son, Marie Lynn Miranda & Michelle L. Bell, *Exposure to Concentrated Animal Feeding Operations (CAFOs) and Risk of Mortality in North Carolina, USA*, 799 SCI TOTAL ENVIRON 149407 (2021), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8530906/.

[10] *Id.* Christine Loftus et al., *Ambient Ammonia Exposures in an Agricultural Community and Pediatric Asthma Morbidity*, 26 EPIDEMIOLOGY 794 (2015), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4587379/.

[11] Nina Domingo et al., *Air Quality-Related Health Damages of Food*, 118 PNAS 1, 2 (2021), https://www.pnas.org/content/pnas/118/20/e2013637118.full.pdf.

[12] Fiona Ward et al., *Engaging communities in addressing air quality: a scoping review,* 21 ENV'T HEALTH 1 (2022), https://doi.org/10.1186/s12940-022-00896-2.

[13] Quirin Schiermeier, *Eat less meat: UN climate-changes report calls for change to human diet*, NATURE (Aug. 12, 2019), https://www.nature.com/articles/d41586-019-02409-7; U.S. Env't Prot. Agency, *Methane Emissions*, (Jan. 7, 2025), https://www.epa.gov/ghgemissions/methane-emissions.

[14] Andrea Thompson, *Here's How Much Food Contributes to Climate Change*, SCIENTIFIC AM. (Sep. 13, 2021), https://www.scientificamerican.com/article/heres-how-much-food-contributes-to-climate-change.

[15] *See,* U.S. GLOBAL CHANGE RESEARCH PROGRAM, IMPACTS OF CLIMATE CHANGE ON HUMAN HEALTH IN THE UNITED STATES 249 (2016), https://health2016.globalchange.gov/low/ClimateHealth2016_FullReport_small.pdf.

[16] Kiki Velez, *CARB Must Reform LCFS Program to Meet Climate Goals*, NRDC (Aug. 23, 2023), https://www.nrdc.org/bio/kiki-velez/carb-must-reform-lcfs-program-meet-climate-goals-0; Aaron Smith, *What's Worth More: A Cow's Milk or its Poop?*, AG DATA NEWS (Feb. 3, 2021), https://asmith.ucdavis.edu/news/cow-power-rising.

CAFOs credit for both reducing methane emissions from manure—under the assumption that wet, methane-generating manure is an inevitable part of livestock production—and for replacing fossil fuels with higher CI scores.

This is flawed because, for one, maintaining massive quantities of liquid manure that generate large methane emissions is not a given; it is an intentional choice by CAFOs that programs like LCFS and CFS reward and reinforce. Methane from manure is avoidable when it is not maintained as a liquid in cesspools, and there are alternative manure management practices, such as composting and dry scraping, that produce far lower methane emissions that can be employed by operations of all sizes.[17] Second, LCFS (and as a result, Ecology's proposal) completely disregards the upstream and downstream greenhouse gas emissions from the underlying factory farming operations, including emissions from feed production, enteric emissions, the increased greenhouse gas emissions when operators use and dispose of the digester waste and the emissions from burning biomethane, among others.[18] Methane captured through the production of gas does not magically make factory farm gas carbon negative, despite the creative accounting of both CARB and Ecology.

The CFS Creates Perverse Incentives

Due to factory farm gas's flawed CI score, Ecology risks distorting its burgeoning market for low carbon fuels, boosting fuels derived from manure above truly renewable sources, just like the LCFS. As one energy analyst noted, LCFS is "primarily funneling capital toward replacing fossil diesel with biofuels rather than toward electrification," with 80% of credits having gone to combustion-based biofuel producers.[19] Under LCFS, manure biomethane accounts for "21% of credit generation" in the program yet provides just "1% of energy used for transportation."[20] This seemingly conflicts with the intent of the CFS—which is to curb carbon pollution from transportation—and an outcome Ecology should take every care to avoid.[21]

Unsurprisingly, with such a wildly low CI score, CAFO operators and energy companies are incentivized to produce more gas, in the most methane-emission heavy manner, to receive the lucrative rewards from the false market that has been created. This is done either by consolidating farms, by increasing herd sizes (and the pollution, public health risks, and animal cruelty that comes with expanding CAFOs), or by utilizing the worst (most methane-generating) manure management strategies.[22] Moreover, smaller and more sustainable farms that manage manure through practices that

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[17] Gosia Wozniacka, *Are Dairy Digesters the Renewable Energy Answer or a 'False Solution' to Climate Change?*, CIVIL EATS (Apr. 24, 2020), https://civileats.com/2020/04/24/are-dairy-digesters-the-renewable-energy-answer-or-a-false-solution-to-climate-change/; RUTHIE LAZENBY, MITIGATING EMISSIONS FROM CALIFORNIA'S DAIRIES: CONSIDERING THE ROLE OF ANAEROBIC DIGESTERS IN MITIGATING EMISSIONS FROM CALIFORNIA'S DAIRIES 28 (2024), https://law.ucla.edu/sites/default/files/PDFs/Publications/Emmett%20Institute/UCLA_Emmett_CA_Dairies_1%2018%2024.pdf (Alternatives include, "solid separators that reduce methane-producing slurries; providing conservation assistance for transitions to alternative manure management systems, such as deep pits, composting, transitions to pasture, or other practices that have a lower greenhouse gas profile.").

[18] *Id.* at 18.

[19] DANNY CULLENWARD, CALIFORNIA'S LOW CARBON FUEL STANDARD (2024), https://kleinmanenergy.upenn.edu/research/publications/californias-low-carbon-fuel-standard/.

[20] Kevin Fingerman et al., *Risks of Crediting Carbon Offsets in Low Carbon Fuel Standards: Lessons Learned from Dairy Biomethane*, 206 ENERGY POLICY 114738 (2025), https://www.sciencedirect.com/science/article/pii/S0301421525002459.

[21] *Id.* Martin, *supra* note 2.

[22] Aaron Smith, *Cow Poop is Now a Big Part of California Fuel Policy*, AG DATA NEWS (Jan. 22, 2024), https://agdatanews.substack.com/p/cow-poop-is-now-a-big-part-of-california; CHLOE WATERMAN & MOLLY ARMUS, BIOGAS OR BULL****? THE ECOLOGYEPTIVE PROMISE OF MANURE BIOGAS AS A METHANE SOLUTION 33-38 (2024), https://foe.org/wp-content/uploads/2024/02/Factory-Farm-Gas-Brief_final-final.pdf; FOOD & WATER WATCH, THE BIG OIL AND BIG AG PONZI SCHEME: FACTORY FARM GAS 6 (2024), https://www.foodandwaterwatch.org/wp-content/uploads/2024/01/RPT2_2401_GreenwashingBiogas-WEB3.pdf; FARM FORWARD, GASLIT BY BIOGAS: BIG AG'S REVERSE ROBIN HOOD EFFECT 14-15 (2025),

largely avoid methane creation cannot convert those beneficial practices into revenue through these programs, perversely creating a competitive advantage for massive livestock operations.[23]

While Ecology's proposed rule attempts to mitigate concerns about CAFOs shifting their production methods to a more methane-intensive manner, the rule falls short. For one, it appears to permit facilities to expand and, as long as they can show increased biomethane production, claim a new 15-year avoided methane credit period without limit. Thus, if a livestock operation generates more greenhouse gasses (as will happen if a CAFO expands to increase production), they will benefit under the CFS. This directly undermines any proposed climate goals and further encourages farm consolidation.[24] Second, Ecology notes in the proposed rule that if a law or regulation was passed in the state requiring "greenhouse gas emission reductions from manure methane emissions from livestock and dairy projects," additional avoided methane crediting would be limited and additional periods would not be permitted. However, as is the case with LCFS, these programs create an expectation of benefits within the industrial livestock industry that will be difficult to claw back.[25]

Ecology also alleges that there is "little evidence of avoided methane credits causing an increase in herd sizes" in California.[26] However, there is inadequate data to evaluate this claim because California—like Washington State—does not maintain accurate data on dairy herd sizes. CAFOs in California report varying herd sizes across county data, federal data, state permits, LCFS pathway applications and as part of the California Dairy & Livestock Database (CADD, put together by CARB).[27] Data from all of these sources is self-reported, and in some cases, dairy operators are incentivized to report higher herd sizes (e.g., to capitalize on LCFS subsidies), while in other cases they are incentivized to report lower herd size numbers (e.g., to comply with permits capping allowable herd sizes). Anecdotally, several California dairies with digesters have increased their herd sizes and exacerbated their pollution,[28] and there is evidence that dairies with anaerobic digesters are more likely to increase their herd sizes relative to similar-sized dairies without digesters.[29] In light of the gaps and inconsistencies in herd sizes ***self-reported*** by the dairies across the state, Ecology's assertion that LCFS has not incentivized CAFO growth is questionable.

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https://www.farmforward.com/publications/gaslit-by-biogas/; Erin Jordan, *'More manure means more energy': Iowa dairies with biogas digesters are growing their herds, which concerns water quality advocates,* THE GAZETTE (Nov. 3, 2024), https://www.thegazette.com/agriculture/more-manure-means-more-energy-iowa-dairies-with-biogas-digesters-are-growing-their-herds-which-c/; Dean Florez & Diane Takvorian, *California just set rules that trade short-term climate gain for long-term health and safety*, L.A. TIMES (Nov. 20, 2024, 12:50 PM), https://www.latimes.com/opinion/story/2024-11-20/methane-air-quality-california-central-valley-dairy-emissions.

[23] Fingerman, *supra* note 20.

[24] *Id.*

[25] Jeff St. John, *California Could Lock in Disastrous Dairy Methane Rules, Advocates Warn*, CANARY MEDIA (Oct. 14, 2024), https://www.canarymedia.com/articles/policy-regulation/california-could-lock-in-disastrous-dairy-methane-rules-advocates-warn.

[26] KASIA PATORA & EMMA DIAMOND, PRELIMINARY REGULATORY ANALYSES: CLEAN FUELS PROGRAM RULE 82-83, 104 (2025), https://apps.ecology.wa.gov/publications/documents/2514039.pdf.

[27] *Id.* at 29-32.

[28] Aaron Cantu, *How a California Dairy Methane Project Threatens Residents' Air and Water*, CAPITAL & MAIN (Apr. 20, 2023), https://capitalandmain.com/how-a-california-dairy-methane-project-threatens-residents-air-and-water; Emma Foehringer Merchant, *A Battle Is Underway Over California's Lucrative Dairy Biogas Market*, INSIDE CLIMATE NEWS (Dec. 28, 2023), https://insideclimatenews.org/news/28122023/milking-it-battle-underway-california-dairy-biogas-market/; MOLLY ARMUS ET AL., A BROWN CLOUD OVER THE GOLDEN STATE: HOW DAIRY DIGESTERS ARE DRIVING CAFO EXPANSION AND ENVIRONMENTAL INJUSTICE IN CALIFORNIA 15-19 (2024), https://foe.org/wp-content/uploads/2024/10/BrownCloud-ENGLISH-Final-1.pdf.

[29] WATERMAN & ARMUS, *supra* note 22 at 33-38 (2024).

Ultimately the perverse incentives perpetuated by this policy undermine the methane-reducing potential of anaerobic digesters, and exacerbate extensive environmental and public health impacts frontline communities are already enduring from CAFOs.

Factory Farm Gas Production Fails to Address Environmental and Health Impacts on Communities and Creates New Problems

Not only does producing factory farm gas fail to address the aforementioned public health and safety concerns of communities, producing factory farm gas also generates additional environmental, public health, and safety concerns for communities living near CAFOs and biogas plants. These include increased production of ammonia pollution from anaerobic digestion,[30] higher concentrations of nutrients in digestate that contribute to water pollution,[31] increased disruption and pollution from new pipelines and trucks to transport manure or biomethane through communities, and more toxic air pollution from biogas processing than is produced by fossil gas.[32]

For example, as petitioners point out in their *Petition for Rulemaking to Exclude all Fuels Derived from Biomethane from Dairy and Swine Manure from the Low Carbon Fuel Standard*, the Lakeview Dairy Biogas project in Kern County, California, uses two internal combustion engines to produce over 1,000 kW of electricity on-site.[33] Even with the required pollution control technology, this project emits 4.58 tons/year of NOx, 1.98 tons/year of PM10 (fine particulate matter), and 3.18 tons/year of VOC.[34] Compared to a natural gas combined cycle plant in a nearby town, the Lakeview digester project produces much higher levels of NOx, SOx, and VOC emissions per unit of electricity generated. Meanwhile, communities in Washington's lower Yakima Valley already suffer some of the worst air and water quality in the country due in large part to the concentration of dairy CAFOs. The American Lung Association currently ranks Yakima as the eighth most polluted city nationwide for daily particulate matter, with studies showing disproportionately high rates of childhood asthma in the area and that high ammonia emissions from nearby dairy CAFOs worsen symptoms.[35] Producing and combusting manure biogas onsite leads to even worse air quality, exacerbating public health harms and environmental injustice.

Conditions on Receiving Avoided Methane Credits

We strongly encourage Ecology to eliminate the avoided methane crediting in the proposed CFS rule. However, if ultimately Ecology decides to move forward with its changes and maintain the 15-year avoided methane crediting period for CAFOs, Ecology should:

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[30] Michael A. Holly et al., *Greenhouse Gas and Ammonia Emissions from Digested and Separated Dairy Manure during Storage and after Land Application*, 239 AGRIC., ECOSYSTEMS & ENV'T (2017), https://doi.org/10.1016/j.agee.2017.02.007; Thomas Kupper et al., *Ammonia and Greenhouse Gas Emissions from Slurry Storage – A Review*, 300 AGRIC., ECOSYSTEMS & ENV'T (2020), https://doi.org/10.1016/j.agee.2020.106963; Lowry A. Harper et al., *The Effect of Biofuel Production on Swine Farm Methane and Ammonia Emissions*, 39 J. ENV'T QUALITY (2010), https://doi.org/10.2134/jeq2010.0172.

[31] Katarzyna Chojnacka & Konstantinos Moustakas, *Anaerobic digestate management for carbon neutrality and fertilizer use: A review of current practices and future opportunities*, 180 BIOMASS AND BIOENERGY (2024), https://doi.org/10.1016/j.biombioe.2023.106991.

[32] Alarico Macor & Alberto Benato, *A Human Health Toxicity Assessment of Biogas Engines Regulated and Unregulated Emissions*, 10 APPLIED SCIENCES (2020), https://doi.org/10.3390/app10207048.

[33] Ass'n of Irritated Residents et al., *Petition for Rulemaking to Exclude All Fuels Derived from Biomethane from Dairy and Swine Manure from the Low Carbon Fuel Standard Program*, (Oct. 27, 2021), https://ww2.arb.ca.gov/sites/default/files/2022-01/2021.10.27%20Petition%20for%20Rulemaking%20AIR%20et%20al_.pdf.

[34] San Joaquin Valley Air Pollution Control District, Notice of Preliminary Decision – Authority to Construct (Mar. 22, 2016), http://www.valleyair.org/notiCes/Docs/2016/03-22-16_(S-1143770)/S-1143770.pdf at 14.

[35] Loftus et al., *supra* note 10; *Short-Term Particle Pollution*, Am. Lung Ass'n, https://www.lung.org/research/sota/key-findings/short-term-particle-pollution (last visited June 27, 2025).

i. Prohibit facilities from expanding their herd sizes during their 15-year credit window and do not allow existing facilities to expand and claim a new 15-year credit period.

As noted above, if CAFOs increase their herd sizes after their digester becomes operational, the emissions from the additional animals can undercut the methane emissions reductions from digesters while exacerbating environmental justice concerns that stem from an even greater volume of manure to manage. Recent research from Friends of the Earth and the Socially Responsible Agriculture Project found that CAFOs with digesters grew their herds at a rate of 3.7%, year-over-year, which is 24 times the growth rate of CAFOs without digesters.[36] There is also precedent for this requirement in California's Dairy Digester Research & Development Grant Program (DDRP), which prevents recipients from applying for a permit to increase their herd sizes during the grant period.[37]

Moreover, as noted above, the proposed update to the CFS does not appear to put a cap on the number of times a facility can expand and claim a new 15-year crediting period so long as it can show an increase in biomethane production.[38] This is a major loophole that must be fixed in the rule.

Conditions on Receiving Any Methane Credits

Ecology should also impose the following conditions for CAFOs to receive any credits under CFS to help ensure the program does not exacerbate pollution and environmental injustice for communities living near CAFOs:

i. Require CAFOs to update their nutrient management plan (NMP) to account for digestate.

NMPs can be a useful tool in managing animal waste and mitigating environmental impacts, especially water pollution caused by an oversaturation of nutrients. Anaerobic digesters produce digestate, a solid material with high concentrations of both nitrogen and phosphorus that is often used as a fertilizer. As noted previously, due to its high concentration of nutrients, land applying digestate can create a higher risk for both ground and surface water quality problems.[39] Digestate can also cause nitrogen leaching, nitrous oxide emissions, residual methane, ammonia, hydrogen sulfide emissions, and odorous gases when applied in excess or without proper application protocols.[40] NMPs are an effective tool, if thorough and properly enforced, to help manage digestate and should be appropriately updated prior to a manure biogas producer receiving any benefits under the CFS.

ii. Revoke the ability to participate in the CFS if a CAFO violates federal, state and/or local laws or regulations.

Under the CFS, Ecology maintains its authority to revoke an account and/or restrict, suspend, or invalidate credits.[41] It should explicitly require immediate revocation of an account producing manure biogas if the CAFO supplying the manure violates any relevant federal, state or local laws and/or regulations. Unfortunately, this is a regular issue under California's cap-and-trade programs: Dairies charged with violating environmental regulations are claiming and receiving lucrative offset credits,

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[36] Id.

[37] CAL. DEP'T OF FOOD AND AGRIC., REQUEST FOR GRANT APPLICATIONS: DAIRY DIGESTER RESEARCH AND DEVELOPMENT PROGRAM 7 (2023), https://www.cdfa.ca.gov/oefi/ddrdp/docs/2023_DDRDP_Request_for_Grant_Applications.pdf.

[38] Proposed Amendments to the Clean Fuels Program Rule, WSR 25-13-080 (June 16, 2025), https://lawfilesext.leg.wa.gov/law/wsr/2025/13/25-13-080.htm. It's also worth noting that "baseline" is not clearly defined. Someone may be able to temporarily lower production immediately prior to application; alternately, they could try to average several years as a baseline that include very low production.

[39] U.S. DEP'T OF AGRIC., CONSERVATION PRACTICE STANDARD ANAEROBIC DIGESTER (CODE 366) 6 (2017), https://www.nrcs.usda.gov/sites/default/files/2022-08/Anaerobic_Digester_366_CPS_Oct_2017.pdf.

[40] Chojnacka & Moustakas, *supra* note 31.

[41] WASH. ADMIN. CODE § 173-424-700.

essentially offsetting any fines imposed by their local regulator.[42] In light of the risks that manure biogas production poses, this should explicitly be articulated in the CFS regulation to ensure that Ecology does not incentivize projects that violate environmental and public health protections.

Reform the CFS

Failing to take this opportunity to meaningfully reform the CFS will entrench the current, inherently unsustainable systems of industrial animal agriculture and fossil fuel energy. Without a change, industrial polluters will continue to reap lucrative benefits at the expense of frontline communities' health and safety, perpetuating the environmental injustice Washington seeks to address. As such, Ecology should prioritize the following changes to the program:

1. Eliminate avoided methane crediting.
    a. If Ecology chooses not to eliminate avoided methane crediting, prohibit expansion of herd sizes for the duration of the avoided methane crediting and close the loophole that could allow CAFOs to expand and claim a new 15-year crediting period so long as they can show an increase in biogas production.
2. Fix the inaccurate Life Cycle Assessment that ignores upstream and downstream greenhouse gas emissions associated with factory farm gas production.
3. Condition the receipt of credits under CFS on facilities having an updated Nutrient Management Plan that accounts for their digestate and compliance with federal, state, and local environmental and public health laws and regulations.

We encourage Ecology to do better than CARB, change course, and prioritize the well-being of Washingtonians over industrial polluters by meaningfully reforming the CFS. Thank you for your consideration.

Sincerely,

Molly Armus
Friends of the Earth

Jean Mendoza
Friends of Toppenish Creek

Lucero Mendez
Poder Latinx

Coleen Anderson
350 Yakima Climate Action

Selden Prentice
350 Seattle

Kelsey Eberly
FarmSTAND

Sherri Dugger
Socially Responsible Agriculture Project

James Moschella
Washington Physicians for Social Responsibility

Hannah Tremblay
Farm Aid

Kara Goad
Earthjustice

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[42] See, Bradley W. Parks, *Mega-dairy accused of violating Oregon air pollution rules while seeking clean energy credits in California*, ORE. PUBLIC BROADCASTING (Jan. 27, 2022, 8:46 PM), https://www.opb.org/article/2022/01/27/dairy-methane-oregon-threemile-california-energy-credits (A complaint was filed asking CARB to invalidate LCFS credits generated by Threemile Dairy after it was fined for violating state air pollution rules); *MEA Asks Regulators to Revoke Carbon Credits for Kewaunee County CAFO with History of Environmental Violations*, Midwest Environmental Advocates (Sept. 26, 2024), https://midwestadvocates.org/mea-asks-regulators-to-revoke-carbon-credits-for-kewaunee-county-cafo-with-history-of-environmental-violations/5/ (Wisconsin-based groups filed a complaint with CARB, urging the regulator to invalidate carbon offset credits generated by Wakker Dairy when it was in violation of its water discharge permit).

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