



State of Oregon Department of Environmental Quality

Comments

Clean Fuels Program Expansion Listening Session

This document is a compilation of written comments received in response to a virtual listening session that was held on Oct. 31, 2021.

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October 20, 2021

Attn: Cory-Ann Wind
Clean Fuels Program Manager
Department of Environmental Quality (DEQ)
700 NE Multnomah Street, Suite 600 Portland, OR
97232-4100

Comments submitted electronically
CFP2022@deq.state.or.us

RE: Comments Related to the October 13th 2021 Workshop for the 2022 Clean Fuels Program Rulemaking

Dear Ms. Wind,

Air Products is pleased to provide comments in support of DEQ's 2022 rulemaking for the 2022 Clean Fuels Program (CFP). We strongly support low carbon transportation fuel programs like the one in Oregon because they are performance-based and send a strong signal to decarbonize the transportation sector – the largest sector of carbon emissions in the state.

Air Products is the only US based global industrial gas company, in operation for over 80 years with operations in more than 50 countries around the globe. The company's core industrial gases business provides atmospheric and process gases and related equipment to manufacturing markets, including refining and petrochemical, metals, electronics, food and beverage and healthcare. Approximately 19,000 employees globally work to make Air Products the world's safest and best performing industrial gases company, providing sustainable offerings and excellent service to all customers. Worldwide, Air Products is the largest hydrogen producer with over 8,000 metric tons per day of production capacity and over 1,800 miles of industrial gas pipelines.

As an early leader in hydrogen as a transportation fuel, Air Products developed codes and standards for hydrogen fueling. Since the early 2000's, the company has been providing infrastructure and supplying hydrogen to mobility markets including materials handling sites, light-duty automotive, and transit buses, and more recently, heavy-duty trucks. We believe the best way to promote adoption of hydrogen for heavy-duty applications is to lead by example. Air Products recently announced plans to convert its global fleet of approximately 2,000 trucks to hydrogen fuel cell zero-emission vehicles, in line with the company's own sustainability goals.

Air Products is committed to meeting the world's carbon reduction and energy transition challenges at scale. As an example, we have announced the world's largest green hydrogen project in Saudi Arabia. This \$5 billion project will deploy nearly five times more electrolyzer capacity than had been installed globally at the time the project was announced. Our company has committed an additional \$2 billion to develop the distribution and refueling infrastructure to bring this fuel to mobility markets around the world. We have also announced a net-zero carbon blue hydrogen project – a \$1 billion

investment in a hydrogen energy complex in Alberta, Canada, which deploys carbon capture and sequestration (CCS) coupled with an innovative design and advanced technology to minimize emissions of both greenhouse gases and criteria air pollutants. Lastly, Air Products just announced on October 14th that we would build, own and operate a \$4.5 Billion clean energy complex, which will produce over 750 million standard cubic feet per day (MMSCFD) of blue hydrogen in Louisiana. Air Products stands ready to partner with Oregon utilizing our hydrogen supply and distribution capabilities to contribute to the state's achievement of its carbon reduction goals.

For the upcoming rulemaking in 2022, we respectfully request that DEQ consider our input on the following three topics:

Program Stringency

Based on the illustrative compliance scenario work that ICF did for DEQ, additional carbon intensity (CI) reductions beyond the targets of 20% in 2030 and specifically 25% in 2035 are feasible. This is illustrated best in scenario C where hydrogen plays an important role in furthering decarbonization goals. In California, the low carbon fuel standard reduction targets have consistently been met or exceeded from program inception despite consistent concerns from market participants of imminent program failure. To provide the strong market signal needed to decarbonize the transportation fuels market, we suggest targeting at least 37% CI reductions by 2035, increasing in stringency from the current reduction pathway to a linear progression between 2025 and 2035. While the 37% CI reduction target is at the upper end of what the ICF analysis suggests, we believe that there is sufficient time horizon to 2035 to meet an aggressive target. Moreover, the Oregon program has strong cost containment and fuel forecast provisions that provide compliance flexibility should the markets not develop as predicted against such a target.

Advanced Credit Opportunities for Hydrogen

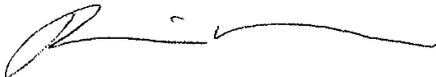
During the last CFP focused rulemaking, DEQ provided an advanced credit provision for specific electric vehicle fleets in support of the transformation to decarbonized transportation. In the response to comments promoting similar advanced crediting for hydrogen fuel cell vehicles, DEQ indicated that they could consider advanced crediting for these sources in the rulemaking that we are beginning now. Air Products strongly urges DEQ to propose advanced crediting provisions for hydrogen fuel cell vehicles in this particular rulemaking and we would be happy to work with the agency directly in the construction of the relevant provisions. The switch to hydrogen for heavy-duty transportation such as buses and semi-trucks is an essential part of decarbonizing the sector. Hydrogen fuel cell trucks and buses have inherent technical advantages compared to their battery electric counterparts including faster refuel times, longer range, and larger payloads, while performing better in extreme climate conditions. Hydrogen as a transportation fuel most closely mirrors the traditional transportation fuel experience. When deployed at scale, hydrogen fuel cell vehicles provide cost savings on a total cost of ownership basis for many fleets.

Expand the Applicability of Book and Claim Accounting to Incentivize Increased Utilization of Low Carbon Hydrogen

The existing CFP regulation already acknowledges a book and claim approach for both renewable electricity and biomethane in calculating a fuel pathway CI. Air Products recommends expanding the use of book and claim accounting to allow additional low carbon hydrogen (and low carbon ammonia as a hydrogen carrier) to contribute to emission reductions that produce low carbon fuels. Hydrogen already plays an important role as a feedstock for both conventional fuel refining and renewable fuel production like renewable diesel. In the future, hydrogen's utilization as an energy carrier and end-use fuel will expand and it will be important to properly incent carbon intensity improvements for hydrogen production for any use in fuel pathways. In many locations, multiple hydrogen production sources are connected to multiple end-users through common distribution systems. As future hydrogen demand grows, coupled with increasing decarbonization ambition, new sources of low carbon hydrogen will come on-line. Because Oregon is primarily a transportation fuel import market, it is possible that imported hydrogen will be transported to the state using ammonia as a hydrogen carrier. It will be important for the hydrogen to retain its low-CI attribute from production to end use, even if transported as ammonia. Tracking the environmental attributes of a particular volume of low carbon hydrogen from a specific producer to specific end user(s) while commingled with higher CI hydrogen will be paramount for proper crediting and valuation in programs like the CFP. We urge DEQ to incorporate this concept to create the opportunities for low carbon hydrogen in this rulemaking.

Air Products appreciates the opportunity to provide this feedback and would be happy to meet with DEQ to provide additional details related to regulatory development. Please feel free to contact me by phone (916-860-9378) or email hellermt@airproducts.com.

Respectfully,



Miles Heller
Director, Greenhouse Gas Government Policy



Bridge to Renewables, Benefit LLC
1015 15th Street NW, Suite 1025
Washington, DC 20005

October 20, 2021

VIA ELECTRONIC MAIL

Department of Environmental Quality
Attn: Cory Ann Wind, Clean Fuels Program
700 NE Multnomah Street, Suite 600
Portland, Oregon 97232-4100

RE: BTR Energy Comments, Clean Fuels Program Expansion 2022 Proposed Rulemaking

Dear Ms. Wind:

On behalf of Bridge to Renewables, Benefit LLC (dba "BTR Energy" or "BTR"), thank you for the opportunity to provide comments regarding the Clean Fuels Program Expansion 2022 Proposed Rulemaking.

As the Department of Environmental Quality (DEQ) approaches the expansion of the annual targets beyond 2025, we encourage DEQ to consider the potential role of Electric Vehicle (EV) manufacturers and how they may be able to support the new standards through innovative approaches.

As you may be aware, BTR Energy and its partners began generating incremental credits under the California Low Carbon Fuel Standard (LCFS) beginning in 2019. The changes the California Air Resources Board (CARB) made to the LCFS program through the 2018 rulemaking, including EV automaker participation, have demonstrated proven benefits.

This month, CARB reported that more than 343,000 residential incremental credits have been generated and more than 3.6 million RECs have been retired for low-CI electricity since these changes were implemented. The data shows that EV manufacturers play an integral role in supporting increasing LCFS credit generation.

As DEQ considers the expansion of the CFP, we recommend Oregon consider future opportunities for the role of EV manufacturers and opportunities for innovative partnerships for smart charging and other charging infrastructure investment, such as in the multi-family sector.

In prior comments, BTR Energy proposed that DEQ consider revising the CFP Rules to allow automakers to generate residential incremental credits for EV charging that is metered with on-board telematics systems.

Alternatively, BTR Energy also proposed DEQ consider periodic reviews to determine if the introduction of additional credit generators, such as automakers, or a hierarchy of credit generators would better support the goals of the CFP.

We continue to support these recommendations for your consideration, and we look forward to engaging in the rulemaking process to identify future opportunities for EV manufacturer engagement.

We appreciate this opportunity to provide comments. Please let us know if we can provide additional information or if we may answer any questions.

Respectfully,

A handwritten signature in black ink that reads "Ashley P. Beaty". The signature is written in a cursive style with a large, looping initial "A".

Ashley P. Beaty
Vice President, Partnerships & Public Policy
BTR Energy

From: [John Thornton](#)
To: [CFP2022 * DEQ](#)
Subject: Comment for CFP 2022 rulemaking
Date: Wednesday, October 20, 2021 5:03:09 PM
Attachments: [image001.png](#)

Senate Bill 1044 (2019) establishes ambitious goals for the adoption of zero-emission vehicles in Oregon. Accordingly, the ODOT Strategic Action Plan features “Electrify Oregon’s Transportation System” as one of its key outcomes. Executive Order 20-04 directed the EQC and DEQ to accelerate credit generation to advance the transportation electrification goals of SB 1044. Consistently and appropriately, in March of this year DEQ adopted amendments to the Clean Fuel Program rules (“Electricity Amendments”) designed to incentivize the generation and aggregation of electricity credits.

Though well-intentioned, we find that the Electricity Amendments allow a significant counterincentive to vehicle electrification that can and should be remedied during the 2022 Clean Fuels Program Expansion. Specifically, the 2022 Clean Fuels Program Expansion Electricity Amendments allowed for an “efficiency adjustment factor” to be applied to electric generators (340-253-0470(6)) that convert biogas to electricity for vehicle use, without specifying its methodology or numeric value.

The purpose of the efficiency adjustment factor is to incentivize high-efficiency generators, but as implemented by the California Air Resources Board, and now by DEQ, it does so at the cost of making electricity a less profitable fuel than the biogas from which it was generated. In other words, it is a counterincentive to vehicle electrification. Furthermore it harms Oregon’s small dairy farms.

We respectfully request that DEQ either (1) consider an alternative methodology to incentivizing generation efficiency that awards electricity credits equal to or above biogas, on a per-vehicle-mile basis, or (2) retain the current methodology but lower the current benchmark efficiency of 50% to 37% or below, that is, a level consistent with electric generation equipment commonly available on the market and appropriate for small farms in Oregon.

John Thornton

President

CleanFuture, Inc.

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From: [John Thornton](#)
To: [CFP2022 * DEQ](#)
Subject: Comment for 2022 CFP Rulemaking - GREET modeling of biogenic tailpipe emissions
Date: Wednesday, October 20, 2021 5:13:19 PM
Attachments: [image001.png](#)

Requesting Consistent Modeling of Biogenic Tailpipe Emissions:

Several approved, Tier 2 pathways do not include tailpipe emissions from biogenic CO₂ in the computed CI. [1] Furthermore, the tools representing application of OR-GREET3.0 to biogenic fuels do not include tailpipe CO₂ emissions either.[2] CO₂ emissions of generator sets that combusts biomethane to produce renewable electricity are also biogenic, and equivalent to the tailpipe emissions that would have resulted had the fuel been combusted directly in vehicles, however the GREET calculators are inconsistent between liquid fuels and biogas fuels.

[1] Numerous Tier 2 pathway applications in California do not include tank-to-wheel CO₂ emissions. For example, application B0189 for REG Geismar, LLC states *"The tank-to-wheels emissions are the same for all biodiesel fuels. These emissions represent the amount of methane and nitrous oxide associated with the combustion of biodiesel in a vehicle. The default value in the simplified CA-GREET 3.0 BD-RD Calculator is 0.76 CO₂e/MJ"* accessible at https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/fuelpathways/comments/tier2/b0189_report.pdf. The cited application B0189 is just one example, other applications with no tank-to-wheel CO₂ certified under GREET 3.0 modeling include B0133, B0119, B0079, B0100, B0047, B0043, B0044, B0045, B0054, B00018, B0099, D0013, D0005, and B0172 . Numerous other examples exist on applications originally certified under GREET 2.0 modeling for the LCFS. While Oregon's Clean Fuels Program does not publicly post fuel pathway applications, it is assumed that Oregon's certified pathways for liquid fuels similarly omit the biogenic tank-to-wheels CO₂.

[2] The value for biodiesel and renewable diesel for tank-to-wheels is 0.76 gCO₂e/MJ in OR-GREET 3.0 and in the OR Tier 1 Simplified Calculator for Biodiesel and Renewable Diesel. The ethanol the value for tank-to-wheels is hard-coded as 0 in OR-GREET 3.0 in cell EtOH!AP530 for Corn Ethanol without Corn Oil Extraction from Distiller Grains, in cell EtOH!DP530 for Corn Stover or Cellulosic Ethanol, and entirely absent in Sugarcane and Grain Sorghum Ethanol calculations. Both simplified calculators for ethanol (Tier 1 Simplified CI Calculator for Starch and Fiber Ethanol, and Tier 1 Calculator for Sugarcane-derived Ethanol) omit tank-to-wheel values.

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From: [John Thornton](#)
To: [CFP2022 * DEQ](#)
Subject: Revise new date requirement for biogas electricity pathways
Date: Wednesday, October 20, 2021 5:15:36 PM
Attachments: [image001.png](#)

Please revisit date requirements for biogas allow such projects to participate based on 2000 or newer dates. There is no such restriction on biogas to RNG.

John Thornton

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October 20, 2021

Submitted via email to CFP2022@deq.state.or.us

Cory Ann Wind
Oregon Department of Environmental Quality
700 NE Multnomah St., Room 600
Portland, OR 97232-4100



RE: Oregon Clean Fuels Program Expansion 2022 – Comments on October 2021 Listening Session

Dear Ms. Wind,

The Coalition for Renewable Natural Gas (RNG Coalition)¹ offers this letter in support of the Oregon Department of Environmental Quality's (DEQ) work toward the expansion of the Clean Fuels Program (CFP). An expanded CFP will help achieve a significant amount of Oregon's greenhouse gas (GHG) reduction goals, as outlined in Executive Order (EO) 20-04.²

RNG provides a cost-effective opportunity to displace diesel fuel, help decarbonize existing natural gas infrastructure, and simultaneously reduce greenhouse gas (GHG) emissions from organic waste streams. RNG will continue to be a key strategy that will help achieve the State's near-term and long-term greenhouse gas reduction goals.

About the RNG Coalition

The RNG Coalition is the trade association for the RNG industry in the United States and Canada. Our diverse membership is comprised of leading companies across the RNG supply chain, including recycling and waste management companies, renewable energy project developers, engineers, financiers, investors, organized labor, manufacturers, technology and service providers, gas and power marketers, gas and power transporters, transportation fleets, fueling stations, law firms, environmental advocates, research organizations, municipalities, universities, and utilities. Together we advocate for the sustainable development, deployment, and utilization of RNG, so that present and future generations have access to domestic, renewable, clean fuel and energy in Oregon and across North America.

The CFP is Working for RNG and the Industry Stands Ready to Contribute Further GHG Reductions

In 2020, the North American RNG industry has developed more RNG production facilities than it did during the first three decades of our existence between 1982 and 2011. This recent RNG growth is being driven primarily by the combination of state-level Clean Fuel Standards and the federal Renewable

¹ For more information see: <http://www.rngcoalition.com/>

² Office of the Governor – State of Oregon, *Executive Order No 20-04*.
https://www.oregon.gov/gov/Documents/executive_orders/eo_20-04.pdf

Fuel Standard (RFS) incentives. There are now 196 operational RNG production facilities in North America and 251 more in construction or that have undergone substantial development.³

DEQ Should Set Ambitious Clean Fuels Targets that Align with a Net-Zero GHG Outcome

RNG Coalition is pleased to see Oregon leading on climate action with both ambitious long-term GHG emissions reduction targets and practical near-term real-world policies to begin the transformation necessary to achieve the long-term goals. The scientific community—including the most recent report from the United Nations’ Intergovernmental Panel on Climate Change—continues to emphasize that global GHG emissions must reach net-zero in the first half of this century.⁴ Therefore, more jurisdictions are adopting net-zero targets.

For example, on the West Coast, both British Columbia⁵ and Washington⁶ are required to reduce their GHG emissions to near-zero by 2050. California has a target to achieve carbon neutrality no later than 2045⁷ and is currently modelling pathways achieving net-zero emissions by 2035.⁸ As neighboring jurisdictions are actively increasing the ambitions of their GHG targets Oregon should continue to lead by setting strong CFP goals. Policies that cover a large section of the economy, such as the CFP, will play an essential role in achieving net-zero outcomes. Therefore, it is important to set near-term programmatic targets to align with the longer-term trajectory toward zero GHG.

We are pleased to see that the *2021 Illustrative Compliance Scenarios*⁹ work conducted by ICF includes possible paths toward achieving CI declines of up to 37% by 2035. Given this result, we encourage DEQ to think of the targets in the EO as minimum, not maximums, for the milestone years of 2030 and 2035. It will likely be necessary to go beyond these minimums to set Oregon on a path toward net zero emissions.

This Rulemaking Should Encourage Broader RNG Use

The RNG Coalition supports the sustainable development, deployment and utilization of renewable gases from all available feedstocks, production technologies, and for all end-use applications. Our members see the CFP as a clear and stable incentive framework that allows them to build RNG

³ Based on RNG Coalition’s production facility data as of October 19, 2021: <https://www.rngcoalition.com/rng-production-facilities>

⁴ Intergovernmental Panel on Climate Change, *Sixth Assessment Report – Climate Change 2021: The Physical Science Basis*. <https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/>

⁵ Canada has a net-zero target by 2050 according to its *Canadian Net-Zero Emissions Accountability Act*, which received royal ascent in June 2021: <https://www.parl.ca/LegisInfo/en/bill/43-2/C-12>.

⁶ Washington State Legislature, *RCW 70A.45.020 Greenhouse gas emissions reductions—Reporting requirements*. <https://apps.leg.wa.gov/rcw/default.aspx?cite=70A.45.020>

⁷ <https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf>

⁸ Office of Governor Gavin Newsom, “Governor Newsom Holds Virtual Discussion with Leading Climate Scientists on State’s Progress Toward Carbon Neutrality,” press release, July 9, 2021. <https://www.gov.ca.gov/2021/07/09/governor-newsom-holds-virtual-discussion-with-leading-climate-scientists-on-states-progress-toward-carbon-neutrality/>

⁹ See Scenario C of ICF’s work available here: <https://www.oregon.gov/deg/rulemaking/Documents/cfp2021icf.pdf>

production facilities and this pipeline-interconnected supply can be shifted to whichever Oregon end use needs it most in the long-term.

As part of the ongoing rulemaking for Oregon’s Climate Protection Program (CPP), modelling from gas utilities shows that RNG will play a major role in decarbonization thermal uses supplied by the gas system. The scenarios modelled by ICF also show reasonable and feasible growth of the use of RNG directly as a vehicle fuel in Oregon’s transportation sector and RNG use in Natural Gas Vehicles (NGVs) offers attractive air quality benefits.

However, more could be done within the CFP to encourage RNG use as a process fuel to lower the CI of liquid biofuel production facilities. For example, DEQ could adjust the rules to expand the use of book-and-claim accounting to allow RNG use in biofuel production facilities serving Oregon to lower their CI.¹⁰ Such a change would align with the goal to promote RNG use in stationary industrial applications, as some environmental stakeholders (even those skeptical of RNG) have expressed a desire to see.¹¹ Essentially, RNG could also be deployed as an input into making other fuels, as is already allowed—but in a limited way—through California’s Renewable Hydrogen Refinery Credit Program and Canada Clean Fuel Standard’s proposed limited recognition of gaseous fuel credits regardless of end use.

When used in non-vehicular applications RNG will not receive federal RFS credit (RINs), so any new CFP options that targets RNG use outside of NGVs might not immediately be financially feasible for all RNG development. However, RNG use has almost saturated the existing NGV demand in Oregon and growth in NGVs is not occurring as fast as growth in total supply of RNG. Due to these dynamics, RNG producers will either begin exploring use in NGVs outside of Oregon or respond to new opportunities in the CFP, which would allow this RNG to continue to benefit Oregon’s transportation-sector GHG reduction goals.

The Rule Should Encourage the Use of a RNG Registry

As described above, the RNG industry is evolving quickly, and new frameworks are emerging that can likely be used to help simplify RNG tracking in the CFP. Reliance on a national registry for tracking RNG production and end use could be an extra layer of protection to help DEQ ensure no double counting of RNG volumes nationwide and could simultaneously ease CI tracking for non-NGV uses of RNG. Such a system might become especially important once the number of RNG projects reaches into the thousands, which could be as soon as 2035 under our SMART initiative.¹²

The leading registry system tracking RNG, and other forms of renewable thermal energy, is the Midwest Renewable Energy Tracking System (M-RETS).¹³ The use of M-RETS to supplement CFP reporting would

¹⁰ We recommend coordinating with California on this issue to build this option into the Tier 1 calculators.

¹¹ <https://www.nrdc.org/resources/pipe-dream-or-climate-solution>

¹² RNG Coalition’s Sustainable Methane Abatement & Recycling Timeline (SMART) is an initiative to capture and control methane from 43,000+ organic waste sites in North America by 2050, achieving significant benchmarks by 2025, 2030 and 2040. For more information see: <https://www.rngcoalition.com/renewable-natural-gas-industry-announces-smart-initiative>

¹³ <https://www.mrets.org/m-rets-renewable-thermal-tracking-system/>

reduce administrative burden on DEQ staff and offer Oregon a chance to harmonize the design of such systems with other RNG-supportive policies.¹⁴

We Support a Broad Shift Toward Crediting Based on Demonstrated CIs Using Full Ex-Post True-ups

With the implementation of third-party verification, DEQ may now want to consider shifting all crediting to be based on verified carbon intensity. We would support DEQ making a full transition to crediting based on verified CI performance, while still retaining the current credit issuance cycle (i.e., truing up to CI actuals ex-post rather than delaying crediting until CI actuals are known). We encourage DEQ to adopt a full true-up for all pathways.

True ups would be especially helpful for dairy RNG projects. Dairy RNG projects have variability in their CI because their operations are impacted by external factors such as temperature and herd count. As the CFP program moves to regular verification, there will be instances where a project may unexpectedly over or under generate credits, based on these external factors. Allowing dairy RNG projects to true up their credit generation after completing their regular verification—rather than penalizing them if they exceed their certified CIs—will improve the accuracy of credit generation in the program and ensure these projects are obtaining the full value of their true GHG reductions.

Conclusion

RNG Coalition appreciates the opportunity to participate and provide comment in this process. Clean fuels programs are one of the strongest drivers of RNG development in North America and the success of Oregon’s program is being observed and emulated by decisionmakers throughout North America. We look forward to continued collaboration with DEQ to ensure that the sustainable production and utilization of RNG keeps creating benefits for Oregon and our climate.

Sincerely,

/s/

Sam Wade

Director of State Regulatory Affairs
Coalition for Renewable Natural Gas
1017 L Street #513
Sacramento, CA 95814
530.219.3887
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¹⁴ For example, Oregon has already approved the use of M-RETS for tracking RNG purchases by gas utilities. See: <https://apps.puc.state.or.us/orders/2020ords/20-227.pdf>



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October 20, 2021

Brandon Price
Maas Energy Works, Inc.
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Oregon Department of Environmental Quality
Attn: Cory Ann Wind
700 NE Multnomah Street, Suite 600
Portland, OR 97232

RE: Comment in Response to Clean Fuels Expansion 2022

Dear Ms. Wind,

Maas Energy Works, Inc. ("MEW") appreciates the opportunity to provide written comments in response to DEQ Staff's upcoming rulemaking for expansion of the Clean Fuels Program ("CFP"). As one of the largest developers of dairy biogas to energy projects in the country, MEW is committed to doing our part to help mitigate methane emissions across our diverse portfolio of dairy biogas to energy projects. MEW applauds DEQ for the success of the CFP thus far and we are supportive of the program's expansion through the upcoming rulemaking. However, MEW does not agree with the recent guidance published by DEQ Staff recommending an "adjustment factor" based on a 50% efficiency benchmark for biogas-derived gensets. Nor do we agree with the process (or lack of) undertaken by DEQ to implement this provision.

MEW understands the intent behind such an "adjustment factor" to limit incentives for lower efficiency gensets and to align CFP public policy with the California LCFS, but this methodology is factually flawed as this level of efficiency has not been achieved by any existing biogas technologies. Implementation of such an adjustment factor needs to be addressed through a formal rulemaking process with broad stakeholder involvement providing meaningful input as to the feasibility of such efficiency limits and the impact that such a policy will have on future development. MEW respectfully requests DEQ Staff to include the Biogas to Electricity "adjustment factor" for consideration in the upcoming formal rulemaking process.

Thank you for the opportunity to provide comments. We look forward to collaborating with DEQ Staff to work towards a successful expansion of the CFP.

Sincerely,

Brandon Price

Brandon Price
Director of Environmental Commodities

From: [oaklea at wvi.com](mailto:oaklea@wvi.com)
To: [CFP2022 * DEQ](#)
Subject: Request for formal discussion on biogas electricity efficiency adjustment factor
Date: Thursday, October 21, 2021 5:55:50 AM

We request a formal discussion to occur on the biogas electricity efficiency adjustment factor because it was not actually addressed in the previous rulemaking. Oak Lea is a small farm in the Willamette Valley being denied valuable CI value because of concern about criteria pollutants in California's San Joaquin valley and large corporate dairy farms. An efficiency standard at 50% is unreasonable for a small Oregon farm and more extreme than the 38% standard that DEQ staff had been considering.

We also request a revision on the in-service date requirement in the recent electricity amendment. Unfortunately the Green-e New Date requirement denies participation in the CFP and a financial mechanism to continue operating our digester, a barrier for our early adopting renewable power generating project to continue operating to destroy methane, a potent short-lived climate pollutant. We anticipate an unfavorable renewal PPA power rate and the CFP revenue is important for continued methane destruction.

Tim Bielenberg
Oak Lea Digester LLC
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October 20, 2021

Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100

RE: The Clean Fuels Program Expansion 2022 Rulemaking

Thank you for the opportunity to comment on the Oregon Department of Environmental Quality's (DEQ's) 2022 rulemaking expanding the agency's Clean Fuels Program (CFP).

In this rulemaking, DEQ has said it will seek to expand the program's carbon intensity (CI) reduction targets beyond 10% and beyond 2025. Additionally, it may make other modifications and clarifications to the program to achieve the expanded targets. PacifiCorp, dba Pacific Power (PacifiCorp or Company) provides these comments with the underlying assumption that these goals will continue to be consistent with the goal established in Governor Brown's Executive Order 20-04 to advance methods of accelerating the generation and aggregation of CFP credits by utilities that can advance the transportation electrification goals set forth in Senate Bill 1044 (2019).

PacifiCorp looks forward to engaging in DEQ's rulemaking process and agrees with its proposed rulemaking timelines. PacifiCorp offers these introductory comments with the intent to help foster a program design that (1) is equitable, (2) maximizes credits for transportation electrification to foster increased investments in charging infrastructure, (3) avoids policy conflicts, and (4) is simple to administer. Specifically, PacifiCorp seeks to reiterate its core principles in this rulemaking:

- Promoting electrification for rural Oregon customers
- Ensuring incremental credits are claimed by entities best positioned to forward state transportation electrification goals
- Designing decarbonization policies that support regional alignment
- Maximizing funds from the program for reinvestment in transportation electrification goals
- Preserving program benefits independent of ratepayer support

Among the issues under consideration in the expansion of the CFP, PacifiCorp would like to flag the proposal to calculate and award incremental CFP credits based on smart charging or time-of-use as an area that will require thorough evaluation. The complexities inherent in the issue include how to balance the desire for accurate, granular CI values with the need to provide policies and price signals that utilities can communicate to customers, that customers can understand, and that incentivize desirable charging behavior. PacifiCorp expects to engage on this and other issues as the CFP expansion rulemaking process progresses.

PacifiCorp looks forward to continuing collaboration with DEQ and stakeholders in this CFP expansion rulemaking process.

Sincerely,

Mary Wiencke
Vice President, Transmission Regulation and Market Policy
PacifiCorp



October 20, 2021

Cory Ann Wind, Clean Fuels Program Manager
Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100

Submitted electronically

RE: Clean Fuel Program Expansion Comments

Program Manager Wind:

Renewable Energy Group, Inc. (“REG”) supports the opportunity to expand and accelerate the Clean Fuel Program (“CFP”) through this rulemaking. Growing the Oregon CFP is a significant step forward in reducing fossil carbon emissions in Oregon and REG looks forward to engaging in this important opportunity.

Renewable Energy Group, Inc. is leading the energy and transportation industries’ transition to sustainability by transforming renewable resources into high-quality, sustainable fuels. REG utilizes a nationwide production, distribution and logistics system for our 12 commercial-scale biodiesel and renewable diesel refineries (10 in North America and 2 in Europe). REG’s Grays Harbor facility, located in Hoquiam, Washington, is the largest biodiesel plant on the West Coast and provides a significant amount of biodiesel to Oregon consumers. Our biofuel production process converts waste fats and oils and vegetable oils into high quality renewable fuels to meet the growing global demand for cleaner, lower carbon products. The use of biodiesel and renewable diesel in a conventional diesel engine reduces life-cycle carbon emissions up to 85% when compared to emissions generated from conventional diesel fuel and lowers harmful emissions of carbon monoxide, sulfur, and particulate matter.

Over the first six years of the CFP, REG has been a major contributor to the carbon reductions associated with the program by supplying biodiesel from our Midwest facilities, as well as REG Grays Harbor. As this rulemaking proceeds, it is important to remember that carbon dioxide accumulates in the atmosphere for a very long time, and that creates a compounding harmful effect on global warming; every new emission adds to the accumulation of carbon dioxide (and other greenhouse gases (“GHG”)) in the atmosphere. That makes it even more imperative to reduce GHGs as much as possible, as soon as possible, and through as many outlets as possible. While undergoing this rulemaking, we encourage the Oregon Clean Fuel Program staff to assess the program so carbon reduction is maximized now, even as we wait for new technologies in the future, which will hopefully reduce Oregon’s carbon footprint even more.



Much of the longer term conversation around transportation GHG reduction strategies in medium to heavy duty diesel equipment has been focused on future alternative energy sources, like electric vehicles for long-haul trucking, “green hydrogen” or “power-to-liquid” fuels. While these solutions may be very beneficial in the future, Oregon’s DEQ should not overlook the opportunity to immediately reduce GHGs (due to the compounding GHG impacts explained above) even while awaiting the commercialization of these new Low-Carbon technologies in the future. Each day the fuel market fails to switch to cleaner fuels, more harmful emissions enter our communities, worsening the effects of climate change, and making it more difficult to address this problem in the future.

Biodiesel is readily available, is carbon-efficient and cost effective, allowing fleets to cut emissions today. Higher biodiesel blends should be increasingly encouraged to reduce the immediate and long term effects of climate change.

REG respectfully submits our request that the following topics be addressed in this rulemaking:

- Accelerate the existing compliance curve beyond 10% before 2025 to maximize carbon reduction in the next four years to align with California and British Columbia as quickly as possible.
- Expand the proposed compliance requirements beyond a 25% reduction by 2035 as the ICF illustrative scenarios conservatively conclude is possible.
- Structure the annual CI score reductions to step down the same interval each year rather than backload program CO₂e reductions. This is important to reduce the compounding impacts of continued CO₂e emissions.
- Fully account for biodiesel supply, availability, and fungibility in the ICF illustrative compliance scenarios beyond a 10% usage assumption. Biodiesel is being used in blend ratios well above 10% including B20, B30+, and even B100 (with certain equipment).
- Adjust the Oregon GREET Model to account for updated science related to indirect land use change for Canola production, similar to British Columbia’s carbon intensity score for Canola Methyl Esters.
- Adjust the Oregon GREET Model to address the updated electricity production emissions which correspond to a recent edition of the eGRID model to accurately reflect fuel production carbon intensity.
- Provide a mechanism for indirect accounting of electricity, hydrogen, and renewable natural gas used at renewable fuel production facilities to allow them to pursue low carbon inputs that will reduce their carbon intensity without having a direct connection.
- British Columbia is looking to expand regulated end uses so that low CI fuels that displace gasoline or diesel outside of traditional transportation end uses would be able to generate credits (slide 7 of 9/14/2021 workshop). REG suggests Oregon consider something similar perhaps by modifying the “Not Used for Transportation” definition to include something along the lines of “Not applicable for non-fossil regulated fuels in 340-253-0200(2)”.



Thank you for the opportunity to present our initial comments. Additionally, we request that a representative from Renewable Energy Group be selected as a member of the Rule Advisory Committee for this undertaking. We look forward to continuing to be a partner in Oregon's decarbonization efforts.

Respectfully,

A handwritten signature in black ink, appearing to read "KH", is positioned below the word "Respectfully,".

Kent Hartwig, Director, Corporate Affairs and Development
Renewable Energy Group



Tom Van Heeke
Senior Environmental Policy Advisor
Rivian Automotive, LLC
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October 20, 2021

ELECTRONIC MAIL TO: CFP2022@deq.state.or.us

Oregon Department of Environmental Quality
Attn: Cory Ann Wind
700 NE Multnomah St., Room 600
Portland, OR 97232-4100

Re: Clean Fuels Program Expansion 2022

Rivian Automotive, LLC, (“Rivian”) appreciates the opportunity to comment on the scope of the upcoming rulemaking to propose changes to the Clean Fuels Program (CFP) regulation. Rivian supports Oregon extending the program and increasing stringency beyond 2025. The Department of Environmental Quality (DEQ) notes that the rulemaking may also include other modifications to the program to improve effectiveness and support achievement of the standards. To that end, Rivian encourages DEQ to consider using this opportunity to weigh additional reforms to the CFP that will help grow Oregon’s electric vehicle (EV) market with benefits for program effectiveness and the state’s climate goals.

Keeping the World Adventurous Forever

Rivian is an independent U.S. company dedicated to the mission of keeping the world adventurous forever through the introduction of a lineup of all-electric adventure vehicles™. The company has launched its first truck (R1T) while the SUV (R1S) will begin regular production later this year. With features like an electric motor at each wheel, over 300 miles of range on a single charge, 0-60mph times of 3 seconds and the ability to tow up to 11,000 pounds (R1T), these all-electric vehicles will open a new class of zero emission vehicles to consumers, meeting ever-growing demands for performance and capability while emitting zero tailpipe emissions. In addition to the R1 vehicles, Rivian will deliver 100,000 all-electric last-mile delivery vans for Amazon in the coming years. These all-electric delivery vans will be produced at the same Normal, Illinois, assembly plant as the R1T and R1S beginning in 2021.

As Part of the Upcoming Rulemaking to Expand the CFP, Consider Additional Reforms to Advance Vehicle Electrification

Though DEQ recently closed a rulemaking regarding electricity provisions within Oregon's CFP, the upcoming rulemaking to expand the program provides another opportunity to weigh certain reforms that would grow Oregon's EV market and maximize the impact of an extended and expanded CFP.

Reconsider the Role of Automakers in the Program

DEQ should assess how automakers could play a more direct role in the CFP. This might include introducing automakers as eligible credit generators for residential EV charging. Using telematics, automakers could report the most accurate data reflecting actual EV usage and charging behavior, while the state would create a direct and compelling incentive for manufacturers to accelerate efforts to build and sell highly utilized EVs in the state. Such an approach could also improve program efficiency and bring automakers' expertise in EV market development more firmly to the fore.

The latter goal could also be supported by including automaker representation on the new equity advisory committee. EV manufacturers are uniquely positioned to understand customer behavior and the factors affecting EV market growth. With representation on the committee, the industry could help shape incremental credit revenue investment priorities that maximally benefit the climate, public health, and EV drivers in all communities.

Reevaluate Guidelines for Credit Revenue Investment

If utilities continue to serve as the primary credit generator for residential charging, DEQ should adopt more defined investment requirements governing their spending of proceeds. While DEQ currently requires utilities to demonstrate that their spending of credit revenue aligns with certain principles, Rivian believes that a more targeted approach is appropriate and would drive electric vehicle market growth with greater impact. For instance, utilities could use their credit revenue to fund a statewide EV purchase rebate, directly and tangibly supporting EV sales.

Align the CFP with a Potential Advanced Clean Trucks (ACT) Regulation

Oregon is actively analyzing the benefits of adopting the ACT regulation pioneered by California. (Rivian supports adoption of ACT in Oregon and submitted comments to that effect earlier in October 2021.) The CFP can create a revenue stream that helps support fleet investments in the electric medium- and heavy-duty (MHD) vehicles required by the ACT: when fleets charge their vehicles centrally at a depot or dispatching center and they own/operate the charger, they can generate the credits. In California, regulators assume that commercial vehicle owners/operators realize this revenue as part of cost-benefit calculations. However, some MHD commercial or fleet EVs might charge at private residences—for example, contractors driving a pick-up or van. An alternative credit generation pathway or investment framework might be required to enable owners/operators of such vehicles to capture the value they generate. As just one possibility, EV manufacturers, in partnership with fleets, could leverage telematics data to unlock the value of residential credits for owners/operators. Ultimately, this issue merits a closer examination and Oregon should carefully consider how to optimize the CFP with a view to making a success of a potential ACT rule.

Conclusion

Rivian supports Oregon's drive to address climate change through a suite of policies, including extending and expanding the CFP. To maximize the benefits of the program, Oregon should use this rulemaking to consider additional reforms to advance vehicle electrification.

Please contact me with any questions. Rivian looks forward to working with you to ensure that the State of Oregon realizes the fullest benefits of the CFP.

Sincerely,

A handwritten signature in blue ink that reads "Tom Van Heeke". The signature is fluid and cursive, with a long horizontal stroke at the end.

Tom Van Heeke
Senior Environmental Policy Advisor
Rivian Automotive, LLC



Date: October 20, 2021

Via email

Department of Environmental Quality
State of Oregon

Comments on the Oregon Clean Fuels Program Expansion 2022

WattTime is excited that the Department of Environmental Quality (DEQ) is expanding the Clean Fuel Program through this rulemaking and appreciates the opportunity to provide comments.

WattTime believes that clean or smart charging, and the benefits of time-varying electricity consumption broadly, are a valuable tool to help Oregon achieve its goal of reducing greenhouse gas (GHG) emissions. We suggest reopening the creation of a pathway for incremental credit generation through smart-charging. A smart charging pathway for electric vehicles will help not only reduce emissions by moving transport away from fossil fuels, but also support better integration of renewables and low carbon sources in the electricity grid.

WattTime recommends that a smart charging pathway have the following characteristics:

- Makes the clean charging credits incremental, in addition to other credits,
- Uses a marginal emissions signal,
- Be granular and real-time.

We provided detailed comments & recommendations on these three topics in our previous “Comments on the Oregon Clean Fuels Program Electricity 2021 Rulemaking Proposed Smart Charging Credit Pathway” submitted on October 21, 2020.

Since then, limited grid data was identified as an obstacle to implementing a smart charging credit pathway. Detailed grid emissions data is increasingly becoming available, including from the U.S. Energy Information Administration (EIA), U.S. Environmental Protection Agency (EPA), and individual grid operators. This increasingly available data can provide a sound underpinning for a smart charging program.

WattTime would be happy to provide more information or have a more detailed discussion with DEQ Staff about data sources or potential program design. We appreciate the opportunity to participate in the proceeding.



Submitted by

Henry Richardson

Senior Analyst

WattTime

1901 Harrison St, Oakland CA 94612

Email: henry@watttime.org

About WattTime

WattTime is a California based non-profit founded in 2014 that provides research, education, and assistance on the environmental benefits of electricity use timing, and advocates for a data driven approach to solving environmental problems.



Jessica Spiegel

Senior Director, Northwest Region

October 20, 2021

Sent via e-mail to: CFP2022@deq.state.or.us

Ms. Cory Ann Wind
Oregon DEQ
700 NE Multnomah Street
Portland, OR 97232-4100

Re: Initial WSPA Comments regarding Oregon CFP Expansion 2022 Listening Session

Dear Ms. Wind:

Western States Petroleum Association (WSPA) is a non-profit trade association that represents companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas, and other energy supplies in Oregon and four other western states. WSPA appreciates the opportunity to provide the Oregon Department of Environmental Quality (DEQ) with initial comments on the October 13, 2021 Oregon Clean Fuels Program (CFP) Expansion 2022 Listening Session.

As expressed by WSPA and others during the Listening Session, the deadline for comments on the Listening Session staff presentation of only one week is clearly insufficient for any thoughtful review of DEQ staff material. In particular, proper review of the detailed Illustrative Compliance Scenarios developed by ICF and discussed by DEQ staff will necessitate reviewing the assumptions and findings documented in the recently released ICF Report¹. WSPA requests at least an additional two weeks to prepare comments (i.e., extending the comment deadline to November 3, 2021).

Notwithstanding the request for an extension to the comment period, WSPA would like to provide the following initial comments based on the DEQ staff presentation on October 13, 2021:

General Comments

Duplicity in Rulemaking

Previous WSPA comments regarding the Oregon Climate Protection Program (CPP) have noted the concern that the CPP is double-regulating transportation fuel suppliers on top of existing CFP. We would like to take this opportunity to reinforce this concern pursuant to the proposed expansion of the CFP. The expansion of the CFP will clearly require a further reduction of the carbon intensity of fuels. The CPP, similarly, would require reduction of carbon emissions from fuels. Such considerable overlap often leads to at least one program being ineffective. Given the significant risk of duplicity, WSPA continues to urge DEQ to consider streamlined coverage of emissions from fuels under a single, cost-effective program.

Indirect Land Use Change

WSPA suggests that DEQ staff review and update as necessary on a routine basis the indirect land use values utilized in the CFP. For example, the soybean oil pathway has new recently-

¹ ICF, 2021 Illustrative Compliance Scenarios Final Report, July 2021.

published research. Updating the fuel pathway carbon intensity (CI) values is critical to the accuracy and effectiveness of the CFP.

Slide 6 of 12 - Implementing Third Party Verification

During the Listening Session, DEQ staff indicated that applications have been accepted for verifiers and verification bodies. As has been a concern in other jurisdictions, a limited number of verifiers have the necessary experience to assess the unique operations of refineries. WSPA suggests that a key component in developing an adequate roster of qualified verifiers is to require facility-specific experience such as for refineries (including critical understanding of operational and safety functions and on-site experience).

Slide 7 of 12 - Illustrative Compliance Scenarios

Notable in the review of the ICF Report was how the impact of the Clean Fuels Program (CFP) cost of compliance on petroleum transportation fuel was represented in the modeling. The ICF Report assumes that the difference in the cost of petroleum fuels between Oregon and the U.S. national average was constant at recent levels through 2050. This analysis provides no adjustments for either Consumer Price Index (CPI) or the increased costs of meeting the CFP program's increased levels of CI reduction. WSPA recommends changing the modeling assumptions to increase CFP cost of compliance in future years according to the appropriate CPI, consistent with other aspects of the regulation, and in consideration of DEQ's plans to increase the CI reduction target to 25% by 2035.

For the assumptions regarding the value of renewable diesel (RD), the ICF Report used a national average B100 price. A national average price includes different state and local taxes and fees that vary significantly from the State of Oregon. The ICF Report did however adjust gasoline and diesel values from a national average to an Oregon value, and then applied EIA's escalator. This means that RD is being handled using a different methodology than gasoline and diesel in the ICF model. It is suggested that methods be aligned (i.e., same cost per unit of energy for RD as assumed for diesel through 2050) for a more accurate depiction of the cost of RD.

For biodiesel (BD), the ICF Report used a national average B20 price which has the same issues described above for RD. Therefore, it is recommended that BD also use the same cost per unit of energy as assumed for diesel through 2050.

Slide 9 of 12 - Extending the Oregon Clean Fuels Standards

The DEQ staff presentation introduced CI Reduction targets of 20% and 25% for 2030 and 2035, respectively (pursuant to Executive Order #20-04). However, no annual targets were presented to stakeholders. WSPA requests further information from DEQ regarding the thought process to date on annual CI reduction targets for the years 2026-2029 and the years 2031-2034. Specifically, it is important to understand early in the rulemaking process whether the DEQ is considering a linear year-to-year CI reduction, frontend or backend loading, or some other analytical approach. The annual CI reduction targets have been a significant issue with the California Low Carbon Fuel Standards (LCFS) Program, resulting in several regulation amendments to accommodate the potential CI impacts for available alternative fuel volumes. Knowing early in the proposed Oregon CFP rulemaking process the DEQ's approach to annual CI reduction targets is critical to evaluating Illustrative Compliance Scenarios as well as the potential effectiveness of other aspects of the program.

Slide 10 of 12 - Other Potential Rulemaking Topics

Addressing Potential Rule Changes

WSPA suggests that DEQ consider regulatory language that could ease future CFP rulemaking in the event of necessary regulation modifications and/or amendments. For example, CI reduction targets under the California LCFS regulations have been subject to several adjustments through extensive rulemaking processes which resulted in long periods of uncertainty for regulated entities. Regulatory language that outlines a process for adjusting CI targets (as needed) would provide the desired certainty and make the rule more responsive to evolving alternative fuel availability..

Refinery and Renewable Fuel Facilities Investment Credit

We urge DEQ include in the CFP a crediting mechanism that recognizes emission-reducing projects at production facilities in a form of approved pathways to generate credits. These projects should include options such low-CI electricity, use of renewable natural gas, energy efficiency projects, and carbon capture. As an example, carbon capture, utilization, and sequestration (CCUS) is one of the most promising technologies to decarbonize liquid fuels. When CCUS is combined with biofuels there is the real potential for negative emissions on a lifecycle basis which other solutions simply cannot offer. Considering the vast application of CCUS in a number of different industries and solutions, there is also an economy of scale which can be captured with large scale adoption of CCUS using hubs, CO₂ pipelines, and shared sequestration.

WSPA suggests that DEQ review the California LCFS Regulation Section 95489(e) Refinery Investment Credit Program and consider including this into the CFP. This element is especially important at Washington state implements their program such that the three programs incentivize equivalent approaches to reducing emissions.

Temporary Fuel Pathways

WSPA recommends that the CFP include a “true-up” of CFP credits pathways moving from a temporary fuel pathway to a provisional pathway (upon such approved). The CFP credit true-up should be based on retroactive crediting with the provisional CI value.

Credits for Exempt Equipment

WSPA requests that DEQ consider the option to earn credits for equipment that are exempt from the CFP rules but are utilizing renewable fuels. Such a provision would further incentivize the overall goals of the CFP.

WSPA appreciates the opportunity to provided comments on this important proposed regulation. If you have any questions regarding this submittal, please contact me at (360) 918-2178 or via email at jspiegel@wspa.org.

Sincerely,

