



State of Oregon Department of Environmental Quality

# Comments

## Clean Fuels Program Expansion Pathways Workshop

This document is a compilation of written comments received in response to the Pathways Workshop that was held on Feb. 17, 2022.

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**From:** [Heller, Miles T.](#)  
**To:** [WIND Cory Ann \\* DEQ](#); [PETERS Bill N \\* DEQ](#)  
**Subject:** Feedback regarding H2 book & claim  
**Date:** Thursday, February 17, 2022 2:21:07 PM

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Cory Ann/Bill – Apologize that I cannot offer comments live on the webinar. It is really noisy here – though I am able to hear most of the webinar. As we stated in formal comment letters, we are supportive of the flexibility that these provisions would provide. Below is some feedback on the specific questions you asked in the webinar. Happy to answer questions or set a call to discuss.

1. What projects or producers would potentially benefit from this allowance of book and claim for hydrogen?

Providing an environmental attribute tracking system could benefit both hydrogen used directly in transportation (i.e., FCVs) and hydrogen used as a feedstock for renewable diesel production. If the Oregon CFP had provisions like CARB's refinery investment credit provisions or refinery renewable hydrogen provisions, this methodology could enable reductions for refineries too. However, I do not believe that the Oregon CFP includes provisions like these. Perhaps, to the extent a refinery is doing coprocessing and using low carbon hydrogen for that coprocessing, then this kind of tracking system may be germane for a project like that.

2. For hydrogen used in renewable diesel production, is an attestation-based book and claim accounting option for hydrogen produced from non-fossil resources reasonable so long as it is limited to a hydrogen-only delivery system with multiple sources of hydrogen? Does it provide assurance/prevent against source swapping, other? Why or why not?

I need to give this more thought, but I think this type of system could work. It is not really that the low carbon environmental attributes are 'separated' from the hydrogen molecule like in some of the other book & claim provisions you reference. It is more that the low carbon H2 is comingled with higher carbon H2 and we would want to be able to specify the low carbon hydrogen to specific end users. It is a little more like mixing bio feedstocks or biofuels and tracking the CI. One item to emphasize is that the delivery system referenced could be a dedicated H2 pipeline or vessel/train/truck.

3. How do we prevent potential double counting?

I think that reported low carbon hydrogen production via approved pathway, coupled with reported use in the CFP program, along with transport/transfer records and verified by an independent verifier is sufficient.

4. Should the low-CI hydrogen producer apply as a joint applicant with the fuel production facility?

Need to give this more thought – just would not want this to be too limiting or administratively cumbersome. I envision central low carbon hydrogen facilities that might serve multiple end users through these comingled systems. I would think that the hydrogen producer would want the flexibility to certify the hydrogen pathway independently and then provide to different users with proper transfer documentation – as opposed to having to jointly apply with each end user. In this case the end-users would have to incorporate the approved CI or CIs from a hydrogen producer(s) into their pathway. Maybe it is best to allow for both arrangements.

Miles Heller

Air Products and Chemicals, Inc.

Director, Greenhouse Gas Government Policy



**Mark Bunch**  
Regulatory Advisor  
C&P – Fuel supply & midstream: biofuel & low carbon

**bp America Inc.**  
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Chicago, IL 60606

March 4, 2022

Oregon Department of Environment Quality  
VIA Email Transmission  
[CFP2022@deq.state.or.us](mailto:CFP2022@deq.state.or.us)

**Re: Oregon Clean Fuels Program Expansion 2022 Pathways Workshop Feb.17, 2022**

Dear Department of Environmental Quality Staff:

On behalf of bp America Inc., thank you for the opportunity to participate in the Oregon Department of Environmental Quality's ("DEQ") rulemaking on the Clean Fuels Program ("CFP") as a member of the Rules Advisory Committee ("RAC").

bp's ambition is to become a net zero company by 2050 or sooner, and to help the world reach net zero, too. Consistent with bp's ambition, we are actively advocating for policies that address greenhouse gas ("GHG") emissions.

For two of the workshop topics – rule language for pathways and related topics; and Green-e requirement for biogas to electricity projects – our comments are captured in the letter submitted by the RNG Coalition, of which we are a member. Additionally, we have no specific comments to share on the OR-GREET topic.

We do have specific suggestions on the following workshop topic:

**Hydrogen Book-and-Claim Accounting**

As we have stated in previous comment letters to DEQ in this rulemaking, bp supports the broader adoption of book-and-claim accounting, as it enables environmental attributes to be recognized without the need for the physical molecule to enter the jurisdiction to qualify. In addition to hydrogen, Renewable Natural Gas ("RNG") also should be considered eligible for book-and-claim accounting into clean fuel production facilities rather than be limited to direct transportation fuel applications. We urge DEQ to adopt this approach to support meeting the program's expansion targets.

With respect to the questions raised during the workshop around hydrogen book-and-claim and the complexity of different hydrogen sources and their implications for finished fuel carbon intensities, bp would suggest that DEQ consider adopting a project-based approach to accounting for GHG reductions from hydrogen rather than a pathway approach. Section 95489(g) of the California Low Carbon Fuel Standard contains a provision for a Renewable Hydrogen Refinery Credit Pilot Program. DEQ could adopt this California LCFS concept and apply it to not only refineries, but also to clean fuel production facilities. Taking this approach may offer a simpler way to account for GHG reduction contributions from hydrogen than having to manage multiple pathways.

Thank you for the opportunity to comment on these important topics and we look forward to working with DEQ and key stakeholders through this rulemaking process. In the meantime, do not hesitate to reach out to me if you have any questions or need additional context.

Sincerely,

A handwritten signature in blue ink, appearing to read "M. Bunch". The signature is written in a cursive style with a large, stylized "B".

Mark Bunch

March 4, 2022  
Submitted via email to CFP.2022@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 Pathways Workshop**

Dear Ms. Wind,

The Coalition for Renewable Natural Gas (RNG Coalition)<sup>1</sup> submits these comments in response to the public workshop on pathways hosted on February 17, 2022 by the Oregon Department of Environmental Quality (DEQ).<sup>2</sup> The workshop was organized in the context of the Clean Fuels Program (CFP) Expansion 2022 Rulemaking.

### **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.

### **Eligibility of Biogas to Electricity Projects Should Be Extended Indefinitely or the Goals of Conversion to RNG Should Be More Clearly Articulated**

At the public workshop, DEQ discussed Green-e “new date” requirements for biogas to electricity projects. We believe that Green-e established a sunset of the crediting period for biogas facilities with the assumption that once a project had paid off its capital costs<sup>3</sup> it would no longer need continued support to keep operating. RNG Coalition disagrees with this logic because such projects have ongoing operating and maintenance (O&M) costs<sup>4</sup> that need to be covered to keep capturing and converting methane into useful energy for the transportation sector. If such facilities do not have the ability to

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

<sup>2</sup> Presentation slides: <https://www.oregon.gov/deq/rulemaking/Documents/cfp2022PathwaysWorkshop.pdf>  
Workshop memo: <https://www.oregon.gov/deq/rulemaking/Documents/cfp2022owmemo.pdf>

<sup>3</sup> In part due to policy support during the 15-year crediting window.

<sup>4</sup> The following analysis from the IEA gives some sense of the ratio between capital and operating/maintenance costs for biogas projects globally. The economics of individual Oregon projects likely vary significantly from these generalized global values. <https://www.iea.org/data-and-statistics/charts/average-costs-of-biogas-production-technologies-per-unit-of-energy-produced-excluding-feedstock-2018>

cover their operating costs, they will likely retire early or be mothballed. That situation could result in a return to venting the biogas, which would be a step backward in Oregon's efforts to control methane emissions.

At the Workshop DEQ staff also mentioned the eight Green-e conditions to reset the eligibility of biogas to electricity projects. RNG Coalition believes that relying on these conditions as the only method to extend crediting eligibility may create a perverse incentive to rebuild a digester or major power generation equipment even if such a repower is not needed. Reconstructing major pieces of equipment years ahead of the natural end-of-life increases net global greenhouse gases due to the additional emissions that occur during accelerated equipment manufacturing.

We understand DEQ's objective of incentivizing the commissioning of new projects to contribute to carbon intensity reduction targets and, potentially, to promote continued efficiency improvement in power generation equipment through repowering. Our perspective is that additional reductions will be achieved via the increase of the carbon intensity reduction target<sup>5</sup> and not by rendering ineligible plants that are already contributing to achieving current targets in the CFP. Biogas to electricity projects should be allowed to participate beyond 15 years and receive a level of crediting that is at least sufficient to cover ongoing O&M costs.

If the DEQ's goal with the sunset is to eventually convert a large amount of the current biogas-to-electricity projects to pipeline injection projects (RNG) this goal should be more clearly articulated.<sup>6</sup> We can understand the benefits of promoting pipeline injection, where viable. However, pipeline injection is not necessarily the best fit for all projects, especially for those that are far from the existing gas infrastructure. Similarly, if the goal is to drive increased efficiency in power generation equipment over time, DEQ should explicitly state this and allow project developers to explain what efficiency levels are currently achievable at such projects from various technologies, their relative costs, and a path to continued efficiency improvements in the future.

### **Adding Flexibility for Accounting of Hydrogen and Renewable Natural Gas is Helpful**

We support the additional flexibility in book-and-claim accounting discussed at the workshop for both hydrogen and RNG as an input into making liquid fuels.

We continue to recommend reliance on a national registry for tracking RNG production and end use. Such a system will become especially important as the number of RNG projects reaches into the high hundreds<sup>7</sup> or thousands. The leading registry system tracking RNG, and other forms of renewable thermal energy, is the Midwest Renewable Energy Tracking System (M-RETS).<sup>8</sup> The use of M-RETS to

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<sup>5</sup> As currently planned by DEQ in this rulemaking.

<sup>6</sup> To some extent, the existing "adjustment factor" that is used in biogas-derived electricity prioritizes pipeline injection where feasible. While the RNG Coalition neither explicitly supports or opposes the use of this factor we do recommend DEQ further clarify its goals with respect to best use of the biogas resource and how such adjustments impact incentives to choose various end uses.

<sup>7</sup> There are now 249 operational RNG projects in North America, with another 223 in construction or planned. See: <https://www.rngcoalition.com/>

<sup>8</sup> <https://www.mrets.org/m-rets-renewable-thermal-tracking-system/>

supplement CFP reporting would reduce administrative burden on DEQ staff and offer Oregon a chance to harmonize the design of such systems with other RNG-supportive policies.<sup>9</sup>

We believe that existing hydrogen pipeline networks are relatively limited and, therefore, tracking the hydrogen from source to end use will likely be a comparably simple exercise, and an attestation-based system should be sufficient protection from double claims in the near term. If the network for hydrogen pipelines expands, M-RETS will likely also expand to incorporate such tracking.

### **Adding a Tier 1 Calculator for Biogas to Electricity Pathways Would Provide Helpful Clarity**

The Workshop included a discussion of development of a Tier 1 simplified CI calculator for biogas to electricity pathways, based on the current simplified calculator for biomethane from anaerobic digestion of dairy and swine manure. We support electricity as an end use being incorporated into all Tier 1 biomethane calculators.

### **Conclusion**

RNG Coalition appreciates the opportunity to participate in RAC and public meetings and provide comments in this process. We thank DEQ for their continued leadership on this program. We look forward to participating in the next steps of the 2022 Expansion Rulemaking and are confident that the results of the rulemaking will strengthen the CFP as a model that other jurisdictions will review and replicate.

Sincerely,

/s/

### **Sam Wade**

Director of State Regulatory Affairs  
Coalition for Renewable Natural Gas  
1017 L Street #513  
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<sup>9</sup> 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> Following Oregon's example, California recently endorsed the use of the M-RETS system in RNG procurement by gas utilities. See: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M454/K335/454335009.PDF>

## Statement for the CFP Expansion Rulemaking – Pathways Workshop on February 17, 2022

My name is Tim Bielenberg, owner of Oak Lea Dairy in Aumsville, Oregon which I started in 1974. We're a family-owned business that milks about 450 dairy cows and sells the milk to a local and family-owned milk processor in Vancouver, Washington, and who then distributes our milk through a regional employee-owned retailer.

I know the manure from our cows produces methane, which is why back in 2012 I did the right thing by installing a digester on our farm. We were one of just three facilities to invest in this technology, which was new at the time and requires a dedicated plant operator, tons of time and frankly lots of money to keep operational. Because of these issues, we're the only remaining facility left operating of the three original facilities. When we took over the digester, we looked at producing RNG but it was too expensive for a small family farm like ours.

We don't just help reduce our own carbon footprint but also reduce emissions for others in our community. We receive and process brown grease from local restaurants and bars which normally goes to a landfill to create fugitive methane emissions. We also work with the local biodiesel refinery out of Salem to process their wastewater, further protecting and improving local water quality and creating a sustainable alternative for waste disposal in our community.

One other major barrier facing our operation and others will be the renewal of Power Purchase Agreements that were signed around 10 years ago. Originally, we were offered around \$0.10 per kWh but we'll likely be lucky to get \$0.03 per kWh on a new PPA when our existing PPA expires. The Oregon Clean Fuels Program represents the only tool left available to help us keep the digester operating, capturing and destroying harmful methane gas before it enters the atmosphere.

Part of our farm's income came from the State of Oregon through Oregon Department of Agriculture in the form of tax credits issued based on tons of biomass put through the digester. Originally the income was \$5 per ton and then it dropped to \$3.50 per ton but that program ended December 31, 2021. It was a large part of our operating income. We are now heavily relying on the Clean Fuels Program to help our digester to stay operating.

We'd like to see a strong policy signal from DEQ for the Clean Fuels Program to incentivize farms like mine across Oregon to reduce methane emissions, the CFP is important for us to support continued operation of the digester on our small farm. The Green-e standard creates uncertainty in three ways that jeopardizes this vision of mine:

- 1) The Green-e standard currently only allows a 15-year project life because of the New Date. We do not anticipate being able to reset the Green-e New Date. Do you know how much a digester costs and what the Return on Investment is like? We're talking *millions* of dollars on a project that actually does not pencil in today's electricity market environment.
- 2) The Green-e standard is developed outside of the Oregon DEQ Clean Fuels Program rulemaking process. I'm busy running a small farm, it is a challenge for me to participate

in the CFP stakeholder process, and nearly impossible for small farmers such as myself to engage in monitoring or participating in the Green-e Standard development.

- 3) Businesses need strong policy indicators to invest in large and complex projects such as on-farm digesters that require significant financial investment and time, especially in light of rock-bottom PPA electricity prices. The Green-e Standard creates significant uncertainty into the future as the Standard continues to evolve independent of the Clean Fuels Program Regulation.

On-farm digesters such as ours at Oak Lea are one of the best tools for Oregon to fight methane emissions while generating renewable electricity – it is low-hanging fruit. Methane is over 25x worse than carbon dioxide in terms of its global warming impact, so I would hope Oregon and DEQ strive to reduce methane emissions first wherever possible.

We are updating our digester continuously so the repowering to reset the new date requirement could cause us to replace components that may have been recently replaced. The New Date requirement in the Green-e Standard will prevent our project and many others from continuing to capture and destroy planet-warming methane emissions and I hope DEQ recognizes the impact that this voluntary standard presents to the Oregon Clean Fuels Program's ability to help incentivize and catalyze methane emission reductions across Oregon farms and existing biogas sources.

Thank you.

Tim Bielenberg  
Oak Lea Dairy  
11314 Mill Creek RD SE  
Aumsville, OR 97325



March 4, 2022

Ms. 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: Third Clean Fuel Program Expansion Comments**

Ms. Wind:

Renewable Energy Group, Inc. ("REG") reiterates our support of expanding and accelerating the Clean Fuel Program ("CFP") through this rulemaking. Growing the Oregon CFP is a significant step forward in reducing fossil carbon emissions in Oregon. REG appreciates the opportunity to provide specific comments on the Rule Advisory Committee Meeting on January 26, 2022 and the Pathways Workshop on February 17, 2022.

Regarding additional documentation for credit transfers, in general, REG supports following CARB's approach with a few ideas for improvement on their process below.

We support Types 1, 2, and 3 for credit transfers (LRT screenshot below).

A screenshot of a web interface titled "Credit Transfer" with a close button (X) in the top right corner. Below the title, the text reads "Select the type of credit transfer to initiate:". There are three options listed, each with a "Type" label in a box and a description. Type 1: "Over-the-counter agreement for the sale or transfer of LCFS credits for which delivery will take place no more than 10 days from the date the parties enter into the transaction agreement." Type 2: "Over-the-counter agreement for the sale or transfer of LCFS credits for which delivery is to take place more than 10 days from the date the parties enter into the transaction agreement or that involve multiple transfers of LCFS credits over time." Type 3: "Agreements for the sale of LCFS credits through any contract arranged through a clearing service provider. (Please use this option only if the credit transfer being reported is facilitated by an exchange. Credit transfers facilitated by only brokers with no involvement of an exchange are not considered Type 3 and must be reported as Type 1 or Type 2 accordingly. If you have questions, please contact [LRTAdmin@arb.ca.gov](mailto:LRTAdmin@arb.ca.gov))"

However, REG does not support having a log of agreements for Type 2 and Type 3 agreements. The way the CA LRT is currently designed, we need to fill out the commercial terms twice - once



for the agreement and once for the actual transfer. We believe this should only be done once. We would recommend adding the Credit Delivery Type (single or multiple) to the transfer process as well as the agreement termination date (LRT screenshot below). If that occurred, it would also make sense to add a contract identifier field for those contracts with multiple transfers to help market monitoring.

**Credit Transfer Agreements**

Transfer Agreement Date: \*

Seller Organization \*: REG MARKETING & LOGISTICS GROUP LLC

Seller FEIN: 20-5983996

Buyer Organization \*:

Buyer FEIN:

Number of Credits \*:   
(Total credits anticipated to be transferred under this agreement)

Price per Credit (US dollars):  **Note: Either Price per Credit OR Terms of Pricing is required.**

Terms of Pricing:   
(Terms used to determine the price for future credit transfer)

Credit Delivery Type \*:

Agreement Termination:

**\* REQUIRED**

REG supports additional credit generation opportunities.

*Who would get the credits? The producer? The initial importer? Any entity that generated credits using that fuel pathway?*

REG supports a process where the producer has first rights to the credits and has the flexibility for the producer to allow the importer to generate the credits if the producer either is not registered or does not wish to do so.

*Should there be a significance threshold for this proposal? In other words, should additional credits be generated only if the operational CI is at least 1 gCO<sub>2</sub>e/MJ lower than the certified CI? What should that threshold be?*

REG supports a similar methodology to the materiality threshold for pathway re-application.



*For the second proposal, should producers not subject to verification have any ability to generate additional credits?*

REG supports the additional credits being generated after 3<sup>rd</sup> party verification. This would eliminate the risk of a certified CI exceeding its registration between validation/certification and verification. For example, if a facility receives a certified pathway in Q2 2022 at a 50 CI (temp CI was 65 for Q1), this facility would be allowed to retroactively generate credits for Q1 at the lower CI after the 3<sup>rd</sup> party verification is completed in August 2023. This puts them on the same timeline for retroactive credit generation as other pathways that have lower verified CI (e.g. a facility with a 52 CI for all 2022, but is verified at a 50 CI during 3<sup>rd</sup> party verification).

Additionally, REG would like to reiterate our support for expanding the proposed compliance requirements beyond a 25% reduction by 2035. The ICF illustrative scenarios demonstrate a 37% reduction is feasible and REG believes this conservative level of biofuel usage in the illustration will easily be exceeded. Please refer to our previous comments for further details.

REG would like to speak in support of a book and claim system for renewable natural gas and for renewable H<sub>2</sub> used for transportation fuel and H<sub>2</sub> used to produce a transportation fuel. Staff posed four questions in the presentation deck on 2/17/2022. Please see our comments as follows:

1. *What projects or producers would potentially benefit from this allowance of book and claim for hydrogen?*

Renewable natural gas projects, renewable diesel projects, hydrogen used as transportation fuel would all benefit from allowing book and claim of H<sub>2</sub>. We support the ability of renewable natural gas (RNG) to use book and claim to qualify RNG for low-CI H<sub>2</sub> production and process energy as well.

The ability to book and claim H<sub>2</sub> on pipeline systems would be beneficial to renewable diesel producers on the pipeline that want to lower their score through securing H<sub>2</sub> from lower CI facilities. H<sub>2</sub> produced at more efficient facilities could lower the ultimate CI score of the fuel shipped to Oregon. Hydrogen production facilities are large and energy intense, so being able to locate them farther away increases the possibility of using renewable energy or new technologies that would be impossible to co-locate otherwise.

We believe it would be positive for renewable fuel producers if facilities could secure the environmental attributes for renewable natural gas and book-and-claim for use as process energy at a plant or for H<sub>2</sub> production. This would also provide a venue for renewable natural gas that would not be used for transportation, give fuel producers a way to lower their carbon intensity, and incentivize more methane capture projects.



2. *For hydrogen used in renewable diesel production, is an attestation-based book and claim accounting option for hydrogen produced from non-fossil resources reasonable so long as it is limited to a hydrogen-only delivery system with multiple sources of hydrogen? Does it provide reasonable assurance/prevent against source swapping, other? Why or why not?*

Yes, an attestation-based book and claim should be sufficient for a hydrogen only pipeline system. We recommend the system be able to book and claim renewable and non-renewable H2 to incentivize lower CI production of H2 at all facilities. Attestations should be backed with an appropriate agreement and documentation of transfers to support the attested transfers.

The attestation and supporting information are reasonable proof for commodity transfers for renewable natural gas and many commodities. Moreover, H2 pipeline systems have an additional level of security compared to book-and-claim on the interstate pipeline system. They are typically proprietary and have very precise tracking to account for all H2 delivered on the system.

Monitoring is crucial due to the safety hazards posed by leaks or ruptures and the need for H2 to produce products where the H2 is being sent. H2 production companies are expected to be able to account for all gas moved on their pipeline much like renewable fuel producers must account for the fuel produced at their production facility.

3. *How do we prevent potential double counting?*

The proprietary nature of H2 pipelines simplifies the auditing needed to ensure no double counting occurs. If an H2 producer over-allocated its lowest CI facility, then it could make up the difference within the other production facilities on the line. Since it would be a single company and not numerous parties, the recordkeeping to confirm compliance would be maintained by one party.

4. *Should the low-CI hydrogen producer apply with the fuel production facility as a joint applicant?*

Yes, having a joint application would give a way to connect H2 producers with renewable fuel producers and ensure the partnerships are visible to OR DEQ staff. The visibility would formalize the relationship by documenting it in the submission to OR DEQ which provides assurance to both parties. We recommend mimicking CARB's approach while adding enhancement to the AFP/AFRS to better connect applications with joint applicants.

We are concerned the term "direct connection" is too constraining. "Direct connection" is used in the proposed language to describe the connection between the H2 production and the ultimate offtake, either to produce fuel or as transportation fuel. We suggest modifying the term to avoid



constraining the connection type to a dedicated connection. A dedicated connection severely restricts sourcing low CI products and innovation since there are often space or resource constraints near existing facilities that preclude them from development without significant expense or impractical measures to comply. We would like to ensure the terminology is not misconstrued in the future.

We recommend using the term “physically traceable to the point of origin” as the term for proving the H2 supply provided on the pipeline network. This term would also allow for the possibility of other modes of transportation, such as truck, rail, barge, or shipping vessel.

We also propose OR DEQ staff consider including provisions to allow book and claim to support the production of methanol. Methanol is the key secondary production chemical used to produce biodiesel. Allowing RNG to be transferred to methanol production facilities using book and claim as a methanol feedstock would provide an opportunity for methanol and biodiesel CI reduction. This would be a welcome development since the production of methanol from biogenic sources has yet to be developed at a commercial scale.

Finally, we ask that staff consider provisions allowing RNG to be transferred with book and claim for process energy at production facilities. This would enable biofuel production facilities to lower their thermal energy CI score, which is difficult to reduce. We encourage staff to use the same framework for process energy as on road transportation by allowing RNG to be balanced on the interstate pipeline system. This change will enable CI reduction at production facilities through RNG use and reduce the GHG emissions of interstate pipeline natural gas used overall.

We support DEQ’s efforts to maintain and expand the program to drive the carbon intensity of transportation fuel used in Oregon ever lower and appreciate your consideration. We are happy to further clarify as needed.

Thank you for the opportunity to present additional comments.

Respectfully,

A handwritten signature in black ink that reads "Curtis Powers".

Curtis Powers, Manager, Compliance Supply Chain Management  
Renewable Energy Group

A handwritten signature in black ink that reads "KH".

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