



February 12, 2025

Dear Chair Sollman, Vice-Chair Brock Smith and Members of the Senate Energy and Environment Committee,

**Re: Supplemental Testimony in Support of SB 685**

Breach Collective is a 501(c)(3) nonprofit organization based in Portland and Eugene. Further to the written testimony we submitted to this Committee on February 10,<sup>1</sup> we write to respond to the exaggerated emissions reduction claims made by representatives of NW Natural during the February 10 Committee Hearing, as well as in written testimony by Modern Hydrogen (NW Natural's partner on the Portland turquoise hydrogen blending project).

Our February 10 testimony emphasized that all forms of hydrogen have lifecycle greenhouse gas emissions (i.e. emissions associated with their production and transportation). The technical memo submitted to this Committee by the Institute for Energy and Environmental Research (IEER), indicates that - assuming average natural gas leakage rates - turquoise hydrogen "has about the same climate emissions as using the same amount of energy from natural gas directly - about 11 kilograms of CO<sub>2</sub>-equivalent," such that turquoise hydrogen "produces no climate benefit at all."<sup>2</sup>

IEER's calculations assumed a 100% efficient methane pyrolysis process that consumed about twice the amount of methane as producing hydrogen via steam reforming.<sup>3</sup> Recent correspondence with Modern Hydrogen's Michael Jung indicates that Modern Hydrogen's technology is actually using closer to *three* times the amount of methane to produce an equivalent amount of energy.<sup>4</sup> This would mean that the NW Natural /

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<sup>1</sup> Breach Collective, *Re: Support for SB 685* (Feb. 10, 2025),

<https://olis.oregonlegislature.gov/liz/2025R1/Downloads/PublicTestimonyDocument/125395>

<sup>2</sup> IEER, *Northwest Gas proposal on mixing pyrolytic hydrogen with natural gas* (Dec. 10, 2024), 2,

<https://olis.oregonlegislature.gov/liz/2025R1/Downloads/PublicTestimonyDocument/123661>

<sup>3</sup> *Id.*, 1.

<sup>4</sup> Email from Michael Jung to Helena Birecki and Carra Sahler (Jan. 9, 2025) ("I regret that I fear that I may have shocked you when I shared the figure toward the end of our conversation that decarbonized natural gas pyrolysis could use up to 3X more methane to deliver the same energy value as before. ... The 3X figure I shared is what I imagine Unit #1 may end up using, whereas the Nth-of-a-kind products in the long run can be expected to perform much more efficiently to achieve close to the 2X figure that reflects

Modern Hydrogen pilot may be *increasing* greenhouse gas emissions on a lifecycle basis compared with using methane directly.<sup>5</sup> If this is the case, then NW Natural's current project is antithetical to sound hydrogen development.

This and other key information about NW Natural's current hydrogen blending activities have not been disclosed publicly. Since community members raised concerns about the Portland hydrogen blending project in 2024, NW Natural has repeatedly talked out of both sides of their mouth on this issue.<sup>6</sup> Instead of engaging directly with the southeast Portland community, NW Natural instead committed resources to promoting the pilot project to local and state government officials far outside of Portland.<sup>7</sup> These actions smack of greenwashing, and have further muddied the waters around important policy conversations about how best to deploy low-carbon hydrogen technology in Oregon. SB 685 would remedy the growing transparency and accountability issues around utility hydrogen blending, by requiring disclosure of a basic, standardized set of information to the PUC and customers.

Sincerely,



Danny Noonan, Climate and Energy Strategist, Breach Collective

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the fact that nearly half of the energy value in methane is locked up in the carbon molecule that we are removing and locking away in asphalt.”).

<sup>5</sup> Cf. Modern Hydrogen, *Testimony of Modern Hydrogen in Opposition to Oregon Senate Bill 685* (Feb. 11, 2025), <https://olis.oregonlegislature.gov/liz/2025R1/Downloads/PublicTestimonyDocument/127243>.

Modern Hydrogen's use of the term “remove carbon from methane” in this letter may mislead legislators, insofar as it implies an equivalency with removing carbon from the atmosphere (such as Direct Air Capture). What methane pyrolysis does is separate carbon from methane molecules, at the expense of needing to use several times as much methane to produce an equivalent amount of hydrogen. Even a 100% efficient process would use twice as much methane. This is not a problem that can be improved by scaling up the technology.

<sup>6</sup> For example, NW Natural representatives have touted the climate benefits of this project while simultaneously claiming the percentage blend is so small as to potentially be occurring naturally (i.e. without their intervention). During the February 10 hearing, NW Natural representatives discussed emissions reductions potentially achievable at a 20% blend level, while acknowledging that their tariff would limit them to a maximum 10% blend. NW Natural representatives further asserted that hydrogen blending produces lower NO<sub>x</sub> emissions (in spite of studies to the contrary and a [body of scientific literature](#) that is, at most, equivocal on this), while having repeatedly denied – both before [this legislature](#) and in [other fora](#) – that NO<sub>x</sub> emissions are a health concern distinctly associated with gas appliances.

<sup>7</sup> See attached emails to (1) Members of the Oregon Legislature's Environmental Caucus; (2) City of Albany Staff and Councilors; and (3) City of Eugene Staff and Councilors.



Danny Noonan <danny@breachcollective.org>

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## Fwd: FW: Modern Hydrogen Project

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Danny Noonan <danny@breachcollective.org>  
To: Danny Noonan <danny@breachcollective.org>

Wed, Feb 12, 2025 at 12:52 PM

**From:** "Johnson, Nels" <Nels.Johnson@nwnatural.com>  
**Date:** August 5, 2024 at 6:03:36 PM PDT  
**Subject:** Modern Hydrogen Project

Some people who received this message don't often get email from [nels.johnson@nwnatural.com](mailto:nels.johnson@nwnatural.com). [Learn why this is important](#)

**CAUTION: This email originated from outside the Legislature. Use caution clicking any links or attachments.**

Dear Members of the Environmental Caucus,

We learned that late last week, a group letter organized by a California PR firm was sent to the PUC, Governor Kotek, legislators and others regarding the hydrogen pilot project that we and our partner, Modern Hydrogen, have initiated at our Central Facility in SE Portland. More detailed information regarding the project pilot is below.

It is unfortunate some groups continue to use misinformation and scare tactics to try and discredit or block clean energy solutions for utilities like NW Natural that are trying to decarbonize. This approach is not unique to the natural gas system. We've seen these same kinds of methods being used to block wind, solar and electric transmission line projects as well.

These tactics are counter to what Oregonians want. In fact, 81% of recently polled voters in our service area say we need two energy systems – both electricity and natural gas – to reliably meet our energy needs.

Working together on a variety of solutions using facts instead of misinformation is the only way to make progress on our shared climate goals. For NW Natural's part, we will continue to act with integrity, transparency and stay centered on our customers to deliver safe, reliable service, as we also work to decarbonize our system.

Please feel free to reach out to me directly with questions or concerns. [I also want to personally extend an invitation to all of you and your staff to come to come tour the Modern Hydrogen project.](#) Just let me know if you'd like to come and we'll find a time that works, and I'll make sure our engineers are available to answer any questions you may have.

Thanks for your time.

Enjoy your week.

Best,

Nels

**Subject:** RE: Invitation - NW Natural Clean Hydrogen Production Project  
**Date:** Monday, April 29, 2024 at 11:55:20 AM Pacific Daylight Time  
**From:** , David  
**To:** Van Der Haeghen, David  
**BCC:** sophie.adams@albanyoregon.gov  
**Attachments:** Invitation.pdf

[WARNING! This email came from outside our organization. Do NOT click unknown attachments or links in email.]

Hello again and happy Monday!

I hope your week is going well so far.

I wanted to share that the timing of this event has changed (date remains the same). **The event will now run from 12:45 to 2:00 pm, with remarks beginning at 1:00 pm.**

I apologize for the schedule change. Please let me know if you have any questions and wish to attend so I can route the calendar invite accordingly.

Thank you,

David

**David Van Der Haeghen**

Community and Government Affairs Manager - NW Natural  
Lane, Linn & Benton Counties  
541.731.8587 | [nwnatural.com](http://nwnatural.com)  
[david.vanderhaeghen@nwnatural.com](mailto:david.vanderhaeghen@nwnatural.com)

[Environmental, Social and Governance Report](#)  
[VISION 2050: Destination Zero](#)  
[Renewable Natural Gas \(RNG\)](#)

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**From:** Van Der Haeghen, David  
**Sent:** Wednesday, April 17, 2024 4:17 PM  
**To:** Van Der Haeghen, David <David.VanDerHaeghen@nwnatural.com>  
**Subject:** Invitation - NW Natural Clean Hydrogen Production Project

Good afternoon,

NW Natural has teamed up with Modern Hydrogen on a three-year demonstration project to produce clean hydrogen using a process called methane pyrolysis.

Hydrogen generated on site at NW Natural's Central Resource Center is turned into energy. Solid carbon captured from the process is collected for use in Modern Hydrogen's proprietary asphalt product for use in applications such as paving and road repair projects.

The project, thanks to the dedication of workers, building trade partners and innovators in climate technology, is the latest step in NW Natural's journey toward a lower-carbon future.

**From:** [Van Der Haeghen, David](#)  
**To:** [Van Der Haeghen, David](#)  
**Subject:** Invitation - NW Natural Clean Hydrogen Production Project  
**Date:** Wednesday, April 17, 2024 4:17:18 PM

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[EXTERNAL ]

Good afternoon,

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The project, thanks to the dedication of workers, building trade partners and innovators in climate technology, is the latest step in NW Natural's journey toward a lower-carbon future.

Join NW Natural and Modern Hydrogen for a celebration and introduction to our new clean hydrogen production project.

Wednesday, May 15, 2024  
10 a.m. – 11:30 a.m.  
NW Natural Central Resource Center  
2630 SE 9th Ave.  
Portland, OR

*Remarks to begin around 10:30 a.m.*

I recognize the logistics of this request are significant and appreciate your consideration. If you are interested in attending, please reply to this message and I will forward a calendar invitation.

Thank you and please let me know if you have any questions.

David

**David Van Der Haeghen**

Community and Government Affairs Manager - NW Natural  
Lane, Linn & Benton Counties  
541.731.8587 | [nwnatural.com](http://nwnatural.com)  
[david.vanderhaeghen@nwnatural.com](mailto:david.vanderhaeghen@nwnatural.com)

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Join NW Natural and Modern Hydrogen for a celebration and introduction to our new clean hydrogen production project.

Wednesday, May 15, 2024

~~10 a.m. — 11:30 a.m.~~

**\*\*12:45 to 2:00 pm\*\***

NW Natural Central Resource Center  
2630 SE 9th Ave.  
Portland, OR

*Remarks to begin at 1:00 pm*

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Thank you and please let me know if you have any questions.

David

**David Van Der Haeghen**

Community and Government Affairs Manager - NW Natural  
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