



## Oregon Energy Strategy Low-Carbon Fuels Policy Working Group

### Meeting 3

**March 14, 2025, 9:00-12:00**

#### Post-Meeting Notes

##### Meeting Summary

*Michael Freels (ODOE) provided additional context from the modeling findings on biofuels and hydrogen production. Michael presented a brief summary of issues raised in other PWGs relevant to the Low-Carbon Fuels topic area. Michael and Jessica Reichers (ODOE) facilitated whiteboard activities and discussions around strategies to address the barriers and issues identified in the previous PWG meeting. In the next meeting, ODOE will present a draft synthesis of what we have heard so far and have a final session to discuss policy actions related to Low-Carbon fuels. Michael invited PWG members to share additional thoughts or comments they may have through ODOE’s Energy Strategy comment portal at <https://odoe.powerappsportals.us/en-US/energy-strategy/>.*

#### In-Meeting Notes

##### Participants

ODOE	Oregon Agencies	PWG Members
Michael Freels	John Tokarczyk, ODF	Devin McGreal, CNGC
Edith Bayer	Jeremy Thompson, ODFW	Antonio Machado, WSPA
Ruchi Sadhir		Pam Neild, BPS
Joshua Price		Brittany Park, NW Natural
Jessica Reichers		Carra Sahler, GEI
Hugh Arceneaux		Cassandra Jackson, Port of Portland
Jillian DiMedio		Dave Vant Hof
		Sam Wade, Coalition for RNG
		Pamela Barrow, Food NW
		Tim Miller, Oregon Business for Climate

##### Introduction

- Michael Freels (ODOE) expressed appreciation for PWG members’ attendance and introduced ODOE staff. Michael directed Policy Working Group (PWG) members to share questions with Joshua Price for technical assistance on the call, WebEx, and Miro. Michael also stated that this and other public meetings are recorded and available at [State of Oregon: DATA & REPORTS - Energy Strategy Working Groups](#).

- Michael introduced WebEx functionality and stated that ODOE's [public comment portal](#) for the Energy Strategy remains open. Michael asked that members use the raise hand function and chat window to engage during the call.
- Michael asked that PWG members introduce themselves in the chat

#### Role and Process for PWGs

- Michael went over the role of the PWG in assisting in the development of policy recommendations and described how these recommendations may evolve over the course of the engagement process with other agencies, the Advisory Group, and feedback from other Policy Working Groups.
- Michael explained the PWG process and the current plan to draft strategies to overcome barriers already described; Michael stated that he consolidate the materials from today's meeting and share them with PWG members for review and comment before the next PWG meeting.
- Michael went over the meeting objectives,<sup>1</sup> agenda, and group agreements.

#### Energy pathways modeling:

- Michael explained that the energy pathways modeling provides a starting point for policy discussions and indicates tradeoffs between pathways generally. Michael stated that the policy discussions should provide context beyond the modeled least-cost pathway findings to inform policy selections by weighing the non-monetized values such as resilience.
- Biofuel and Hydrogen Demand
  - Based on interest from the prior PWG meeting, Michael provided an illustration of projected biofuel and hydrogen demand found by the modeling. The chart indicated biofuel demand exceeding hydrogen but hydrogen beginning to catch up by 2050; Michael says the chart reflects electrification of the transportation sector followed by increased demand as need for further carbon reductions become applicable in 2050.
  - Michael presented on 2023 transportation fuel data, the most recent available, noting that this recent data shows renewable diesel demand growing and exceeding biodiesel demand.
  - California Low-Carbon Fuel Standard; Michael presented data on California's fuel demand, noting that Oregon could see similar fuel demand patterns.
- Michael paused for questions.
  - Sam Wade, Coalition RNG; can Michael explain the step-up in biofuel use in 2050 shown in the modeling? Dave Van't Hof expressed agreement with Sam's concern.
  - Michael; fossil fuel use declines over modeling years and the biofuel jump at the end is used to meet maritime and air fuel needs as 2050 GHG emission goals become effective. A real world transition to biofuel usage in these applications may be more gradual.

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<sup>1</sup> The meeting objectives are copied below and are available with the other presentation materials at [2025-03-14-OES-PWG-Low-Carbon-Meeting-Presentation.pdf](#).

- Identify policy gaps or opportunities
- Discuss strategies to address the barriers
- Determine if we need to change an existing policy, create a new policy, or better understand a potential solution

### Other PWGs:

- Michael went over highlights from the environmental justice and equity, developing clean electricity generation and transmission, BE EE and DERs, and TE PWGs and asked if any participants would like to expand on or further discuss these highlights

### Miro activity

- ODOE shared the Miro link. Michael presented on Miro functionality and how to navigate the digital whiteboard. Jessica asked that, if participants have difficulty navigating Miro, they direct notes towards ODOE staff to input onto the board.
- Michael explained that we would engage in silent brainstorming of solutions to brainstorming and then sorting. Michael explained that he has tried to synthesize LCF barriers into issue statements to help organize and support the solution and strategy brainstorming

### Whiteboard Exercise 1: LCF Development: Production and Distribution

- Discussion:
  - Jessica asks if drafter can expand on a note for “clear guidelines around prudence determinations that will encourage investment”
  - Devin McGreal, CNGC: Many utilities express concern around nebulosity as to what will be deemed acceptable as a low-carbon fuel, for PGA or other special filings or rate cases. So, having clear guidelines as to the rules of the game to inform and bound procurement decisions would be valuable
  - Jessica: are you aware of any guidance that may be a helpful starting point or reference for this type of policy?
  - Devin; doesn't know offhand. Interested in Brittany Park/NW Natural experience, RFP process as a benchmark for decisions on a larger scale
    - Brittany; they run annual RFPs, but have no certainty on rate recovery. It is nebulous, and “prudence” isn't adequately defined. Agrees with Devin and thinks this is a large barrier; knowing what qualifies for rate recovery and what that process looks like would be valuable.
  - Jessica says model shows value in flexible generation; wonders if there's space around that area for defining prudence and whether that's something discussed in proceedings
    - Brittany; SB 98 allows utilities to invest up to 5% of their revenue voluntarily, but prudence is still inadequately defined.
    - Jessica; utilities propose prudence and PUC provides feedback, is that right?
    - Brittany; correct. To put a project through, you put the rate-case in after the project is built; so, having a definition of prudence before project investment would be valuable
  - Carra Sahler; would like to hear from Brittany and Derick; says PUC engages in Integrated Resource Plans, where Carra says utilities could identify short-term actions and investments and discuss least-cost, least-risk factors, with an acknowledgement decision from PUC that'll be useful in later rate cases. Wonders whether PUC acknowledgement of an investment should provide some certainty around investments and their prudence? Says Lexington Renewable Natural Gas investment is a good example of this and that Energy Strategy could help identify pathways that make the most sense for

PUC prudence determinations and least-cost, least-risk acknowledgements. Curious as to what NW Natural and Cascades NG think

- Jessica; appreciates Carra's point. Flags that the Energy Strategy is not trying to duplicate efforts of ongoing PUC work.
- Devin; one of the struggles is timing. If CNGC is doing an IRP, it may not align with RFP process; so a 2-4 year action plan may not align with RFP, and so the IRP would just say a need for dekatherms of gas are needed, but without a named project; so, the issue arises as to what the "optimal project" to meet that defined need would look like, and how prudence should be defined for this process. In a perfect world, RFPs should slot into IRPs, but the issue is addressing these placeholders in IRPs
- Carra Sahler;
  - Says PUC is looking to allow for shorter updates for IRPs and address Devin's issue and that PUC hearings on the 18<sup>th</sup> and 20<sup>th</sup> would be a good place to bring this up; remains to be seen what direction PUC will take.
- Jessica asks for expansion on sticky discussing sustainable aviation fuel and policies that could address needs in that area
  - Dave Vant Hof; says WA went through an advisory group process that resulted in incentives for in-state SAF production. Says that'd be valuable in Oregon and there's a bill to create an advisory group around this; thinks highlighting a need to be proactive on SAF would be a valuable inclusion in the Strategy.
  - Jessica flags that ODOE will not provide a position on current bills unless directed by the Governor's office to do so; thinks PWG members' providing advice regarding directions for an advisory group generally would be valuable. Additionally, providing input in writing would be valuable to recommendation drafting.

### Whiteboard Exercise 2: Feedstocks

- Michael reflects barriers raised in PWG meeting 2 regarding feedstocks and the group brainstormed strategies to address these barriers. Michael noted that adding specificity to brainstormed strategies can be helpful
- Jessica; reflects seeing stickies related to "cost constraints in policies enabling and encouraging low carbon fuel utilization should reflect the market". Asks if anyone can expand on infrastructure, scaling, cost concerns?
  - Brittany; NW Natural has cost constraints on LCF; SB 98 has a revenue cap and there's no clear prudence definition; any kind of policy that would provide more certainty around LCF investments would be helpful.
    - Jessica asks if PWG members could speak to feedstock production cost factors
    - Brittany; policies like, in California, that provide bands around LCF expenditure often don't track to market realities. flexibility around lowest-cost resources would be ideal.
    - Devin; bands can also hamper utilities' negotiation power, with impacts to customers; says prescriptive numbers can be problematic

- Sam Wade; aligning the incentives across transportation end uses into natural gas vehicles and stationary end uses including direct utility procurement; there should be one market for RNG across end-uses. Says that'd be optimal for supporting multiple projects and addressing price fluctuations from elements like inflation and trade barriers
- Jessica asks if folks had thoughts or concerns about how feedstocks for H2 differ from those of biofuels
  - Brittany; they look at lowest-cost resources. Green hydrogen is currently not a lowest-cost resource.
- Pam Neild
  - In implementing RFS, gaps are less with feedstock and carbon intensity values and more with general understanding and agreement around CI and about feedstock; thinks public engagement and understanding would be valuable to support projects. Says these are complicated topics where folks can't be experts even if they want and that public understanding can be a barrier to moving forward with projects

### Whiteboard Exercise 3: Innovation

- Michael introduced the whiteboard exercise to brainstorm what Oregon's role be in supporting innovation in low-carbon fuels technology can or should be
- Jessica reflects seeing a sticky on improving permitting processes for LCF; would be interested in expansion on this?
  - Antonio; were the refining industry able and interested to produce a new LCF, it's complicated. Most producers of liquid fuels are in WA; if there were an opportunity to scale up LCF production and they needed more tankage to separate and segregate different types of fuels, it's almost impossible to build a tank in Oregon and Washington. Permitting process is terrible. Even if feedstocks were available, roadblocks would be substantial
  - Jessica asks what permitting processes are involved and where would there be opportunities?
  - Antonio; what his organization wants to do is help people understand extant infrastructure and org members are open to sharing information on their capacities. Says it's hard to communicate; offers a private meeting and says that the organization is driven by market forces.
  - Michael asks; regarding storage, is it an issue of centralized storage in the state, or onsite for, for example, resilience or refueling needs.
    - Antonio: for all storage needs, but especially storage to ensure that they can segregate different streams or liquid fuels have better infrastructure to better meet end-users needs.
    - An additional issue is ensuring that feedstocks for LCFs are clean
- Minnesota's Natural Gas Innovation Act
  - Brittany: Minnesota's Innovation Act allows the utilities to invest in innovation and pilots; this could be useful for testing technologies like woody biomass pyrolysis

Break, 10:30-10:40

#### Whiteboard Exercise 4: On-demand resources for electricity

- Michael introduced the brainstorming exercise for strategies focusing on demand side resources to provide electricity reliability, reminding that the model found a need for clean gas peaker plants under 25MW in the least-cost pathway
- Jessica clarifies that, in this thinking, we're also considering demand-side resources
- Jessica reflects seeing a sticky on needing incentives for customers and installation, along with more accurate cost-effectiveness metrics; need to fully evaluate DR
  - Tim Miller; historically, Oregon incentives have been limited to provide for smooth, long-term adoption; now, adoption needs to be driven more aggressively. First twenty-percent of activity should be driven with super-high incentives to kick-start these techs aggressively; the value of firing up a gas plant should be taken into account instead of just considering avoided cost.
- Jessica; regarding efficiency and backup resources like generators or batteries; what role do these have in supporting the grid? In the Port, or are there businesses interested in this demand-side participation.
  - Tim; he was talking earlier about DR techs. But agrees efficiencies generally have values at peak demand and those should be valued in efficiency incentives; these should also account for compounding benefits in air quality
- Cassandra; Port is looking, with PNNL, at hydrogen and battery storage infrastructure. They're interested but tech for battery storage from a cost perspective is the biggest challenge, along with peak shaving. There are different opportunities, so they're examining where these opportunities make sense and watching the battery market; currently, however, these don't pencil out, but in the future they expect them to do-so.
- Michael; he envisions large adoption of low-carbon fuels in industry and hard-to-electrify applications; so when we start siting LCF production, what's the state's role in coordinating activity between end-users and producers ?
- Jessica asks: how could we improve DR evaluation? For individual businesses and on an industrial scale? How can the state support these penciling out?
  - Tim Miller; questions whether the model fully accounts for building new thermal plants or maintaining facilities on a background basis
  - Michael says this might be an area for study; the economics of LCF peaker plants, or keeping plants running
- Dave Vant Hof; there's insufficient urgency in planning for DR programs. Compares pilots in Oregon against mandatory time-of-use policy being adopted in Hawaii. Says similar programs could direct IOU investment and accelerate energy storage buildout
- Dual-fuel system planning: Jessica reflects strategy for providing gas and electricity planning on a coordinated basis, invites expansion on this point.
  - Brittany Park; if a single docket were provided, that'd be preferential and provide for better system efficiency.
- Jessica; regarding natural gas as backup for large users like data centers; wonders if others have seen discussion of those demand-side resources providing value to the grid. Are there utilities working with large customers with demand side resources?

- Carra Sahler: says strategies for coordinating with data centers and new large end-uses are being developed but that providing for biomethane as a backup fuel resource rather than diesel is a valuable idea. Says there are possibilities and uncertainties, especially regarding future data center demand curves and how those may become characterized by more drastic peaks and valleys with AI demand.
- Dave Vant Hof; California has the most efficient approach to date, and that relies on significant larger utility scale storage. Knows that PGE has a bill to authorize PGE to work with existing customers with backup diesel and prioritize battery for backup generation contractual agreements to help meet peak demand
- Dave: in terms of policy recommendations, thinks providing for a wonky group of experts beyond IOUs considering how to expand and use utility-scale and backup resources could be valuable.
- Jessica; says Strategy will be looking primarily to near term, as well as further-afield issues
- Tim: speaking to Hawaii example, Oregon would need groups without IOUs because of differing incentives for different stakeholders
- Dave; following on Tim's point, there's a bill to provide performance-based ratemaking. Thinks that bill would drastically change statewide dynamics, as storage could become a performance-based priority.

#### Whiteboard Exercise 4: Electrification

- Michael introduced the brainstorming exercise for strategies focusing on how Oregon can help hard-to-electrify end uses while electrifying where possible and to encourage aviation and maritime use of LCFs, consistent with the modeling findings.
- Jessica: Curious if LCFs are being used at the Port or other places where electrification will be difficult, such as SAF; are these being considered for these uses, and could the state support this consideration
  - Cassandra: The IMO hasn't come with one true fuel contender, they're approaching GHG differently and, under a clean ports grant, are exploring where PNW infrastructure is available and the Port's role is helping alleviate barriers. Concerning SAF; FAA and IPCC are in agreement that SAF is important for reducing airline consumption. H2 and electrification tech have limitations, based on energy density; these options don't work for commercial uses, but may for short-distance. Biggest limitations are incentive programs; WA and CA have incentives for production and blending. There are SAF limitations to blending for airline safety. Oregon is a little bit behind WA and CA and infrastructure for blending lags behind; but PDX has comparatively good infrastructure, given CI hub, for SAF; just need blending. Biggest barriers to blending infrastructure in Oregon are operational and permitting
  - Jessica questions; all planes are on electric shore-power at the Port. Is that the same for vessels? This gets to electrifying where possible, using fuels where not.
    - Jessica reflects that, because there are many fuel options, does that present a challenge to selecting pilots?
    - Cassandra; Some of the bigger challenges are operational issues for berthing; CARB governs berthing. Also, auto-rollons and rolloffs; in California, they're

working more on capture and control to meet berth requirements. Portland gets lower percentage of frequent calls to their port; so it's hard to figure, regarding shore power, if ships have capability to rely on electricity. Also, there's no universal plug-in; we need standardization to understand what to install.

- Cassandra; regarding electrification of maritime; a Clean Port Study will prompt understanding where clean fuels are emerging, and California has a bill dedicated to understanding this/is trying to understand what infrastructure will be needed. Thinks h2 fuel cells are too heavy to currently be practicable. Ammonia fuel-cell is another option. Hard to predict h2 as viable for these uses. Thinks same for aviation; h2 airbus was looking at short-distance aircraft fleets and have had tech setbacks. So, technology needs to develop; there maybe be electric tech movement in WA, but unclear. It's hard to plan while tech isn't yet sufficiently developed.
- Tim Miller; they have programs to decarbonize fleets, which involves electrification and LCFs. They have had several cohorts interested in these; demand driven for biodiesel and BEVs in trucks.
- Jessica wonders if natural gas utilities are seeing requests from customers for LCFs?
- Brittany; they've gotten requests from industry and they have a Smart Energy program to address these requests. Often these requests are cost-prohibitive.
- Devin; their service territory is more rural and they have less LCF demand. They've only had preliminary discussions/light interest.

### Whiteboard Exercise 5: Fuel Use Decline

- Michael introduced the brainstorming exercise for strategies on how Oregon should help address or repurpose fuel infrastructure as well as keeping fuel companies in business as demand decline but some need remains
- TENS; where might utilities need support on these subjects?
  - Devin; it's a difficult subject; collaboration is needed. Needs executive buy-in regarding what's a workable business model on this. Says, regarding TENS pilot projects, WA has some efforts and its an innovative solution. The issue is understanding the challenge that; speaking personally, when promoting electrification, presenting alternative business models and opportunities to gas utilities will be valuable
  - Brittany says NW Natural is interested in TENS and geothermal projects; one of the biggest barriers is a need for supportive policies that ensure rate recovery. Says NW Natural has full-time TENS and geothermal staff. Cautions that policy in this developing technology area should be target-based rather than prescriptive to allow flexible solutions.
    - *Carra Sahler to everyone: Like the Climate Protection Program!*
    - *from Carra Sahler to everyone: Brittany--I encourage NWN to offer a public webinar about the TENS project. It's been hard to get information about it and doesn't seem to be front and center in the IRP meetings. It would be great to know more.*



- *from Brittany Park -NW Natural to everyone: Hi Carra - That is great feedback - we need to get the word out! I will pass that on to our TENS project manager and make sure we get that information to you.*
- Jessica asks; what regulatory certainty is needed regarding fuels?
  - Tim Miller: CPP provides a 25-year plan that helps businesses plan.
  - Dave: says certainty around Clean Fuels Program as well as CPP is important. Likewise, supporting in-state production with low CI increases likelihood of in-state production.
  - *from Carra Sahler to everyone: Just wanted to highlight that a targeted electrification program, modeled after an LEA, could also be a successful method for gas utilities to decarbonize while remaining financially successful. Testimony in Avista's rate case, filed last week, highlights so many gas utilities around the country exploring innovative solutions.*
  - Jessica: Are there mechanisms that could help providers comply with the CPP available?
  - Dave thinks, with CFP and CPP, and you have low CI, then supply will follow and barriers will diminish over time. For SAF, competition with similar West Coast States may be an issue.
  - Tim: Markets around CPP allow innovators to monetize their early progress to anyone in the CPP; sharing of credits allows for early action and long-term planning
  - Antonio: says fossil fuel decline is projected, but projected in the long-term. Agrees neighboring states' LCF programs will compete with each other and Oregon lacks refining capacity. So, would be concerned with doing anything that would discourage producers from allocating barrels to the area.
  - Jessica: what's an LEA?
  - Carra; Line-Extension Allowance, it's how utilities subsidize growth; adding new customers benefits existing customers to share fixed costs. Question to PUC is, given cost of CPP compliance, and worry about stranded assets during voluntary electrification; so existing customers aren't helping growth happen. Carra has proposed, rather than repairing a leaking pipe, that utilities treat targeted electrification and investing in electric appliances that utilities can earn return on; says this approach would be similar to LEA and support affordable, efficient transition. Says this would help PUCs and low-income customers.
  - Devin; PUC is pretty clear that that they want utilities to make sure that they look at both pipe and non-pipe alternatives when assessing distribution projects; you really need to show that you've done your homework on non-pipe alternative. It would help to include environmental compliance costs in this calculus. A challenge to joint utility planning is getting data for electrification for this alternatives analysis. Smaller PUDs may have data challenges in particular.
  - Brittany; agrees with Devin on dual-resource planning

#### Next Steps

- Michael highlighted upcoming office hours and meetings.
- Michael will follow up with meeting times and highlights the comment portal as remaining open for further input.

## Virtual Meeting Chat

March 14, 2025 9:02 AM from Jessica Reichers to everyone: Hi, everyone! Thanks for joining us on this Friday! Feel free to raise your hand or throw questions in the chat as we move through the agenda.

March 14, 2025 9:03 AM from Hugh Arceneaux, ODOE to everyone: PWG meeting recordings and materials are available here <https://www.oregon.gov/energy/Data-and-Reports/Pages/Energy-Strategy-Working-Groups.aspx>

March 14, 2025 9:05 AM from Hugh Arceneaux, ODOE to everyone: Public comment portal: <https://odoe.powerappsportals.us/en-US/energy-strategy/>

March 14, 2025 9:06 AM from Sam Wade to everyone: Sam Wade, Coalition for Renewable Natural Gas

March 14, 2025 9:06 AM from Dave Vant Hof to everyone: Dave Vant Hof - Climate Solutions

March 14, 2025 9:06 AM from Devin McGreal - CNGC to everyone: Devin McGreal - Cascade Natural Gas Corporation

March 14, 2025 9:06 AM from Carra Sahler to everyone: Carra Sahler, she/her, Director, Green Energy Institute at Lewis & Clark Law School; headed to Society Hotel and the hot springs for a few days over spring break!

March 14, 2025 9:06 AM from Jessica Reichers to everyone: Jessica Reichers, ODOE. Looking forward to getting my garden going.

March 14, 2025 9:10 AM from Ruchi Sadhir she/her - OR Dept of Energy to everyone: Ruchi Sadhir, ODOE (here to listen/support). Heading to Joshua Tree National Park for Spring Break - a favorite place of ours, and the first time taking our 2 year old and 4 year old to see it!

March 14, 2025 9:15 AM from Jessica Reichers to everyone: Thanks for introducing yourselves, Sam, Dave, Devin, and Carra. It would be great if others could also introduce themselves in the chat, along with any fun plans you have for spring break.

March 14, 2025 9:17 AM from Dave Vant Hof to everyone: To Sam's point, the slide on change overall and modeling should reflect earlier transition to low carbon fuels along the lines of the CA trajectory

March 14, 2025 9:17 AM from Tim Miller to everyone: Tim Miller (he/him), Oregon Business for Climate

March 14, 2025 9:18 AM from Antonio Machado to everyone: Antonio Machado - Western States Petroleum Association. (Disneyland :-))

March 14, 2025 9:20 AM from Jessica Reichers to everyone: Hi, Dave! Thanks for the comment. Those are exactly the kinds of ideas we are hoping to hear from all of you in the activity portion of this meeting. So, keep them coming. As a reminder, the modeling results are not the Energy Strategy, but

rather serve as information for everyone about expected economywide effects of different changes. So, if your expertise indicates other benefits of earlier transition, that is something to flag for us to consider.

March 14, 2025 9:22 AM from Josh Price, ODOE to all panelists:  
[https://miro.com/app/board/uXjVISHPqNc=?share\\_link\\_id=35243344396](https://miro.com/app/board/uXjVISHPqNc=?share_link_id=35243344396)

March 14, 2025 9:29 AM from Sam Wade to everyone: Sorry, on my phone. Here is one idea: "Because we don't know which end uses are hardest to electrify, OR should provide equal transport and stationary incentives for renewable natural gas use."

March 14, 2025 9:32 AM from Jessica Reichers to everyone: Thanks, Sam. Hugh will capture this for you!

March 14, 2025 9:39 AM from Josh Price, ODOE to all panelists:  
[https://miro.com/app/board/uXjVISHPqNc=?share\\_link\\_id=967703036143](https://miro.com/app/board/uXjVISHPqNc=?share_link_id=967703036143)

March 14, 2025 9:47 AM from Carra Sahler to everyone: UM 2348

March 14, 2025 9:49 AM from Carra Sahler to everyone: Staff memo:  
<https://edocs.puc.state.or.us/efdocs/HAU/um2348hau335368026.pdf>

March 14, 2025 9:53 AM from Carra Sahler to everyone: Notably the PUC's competitive bidding rules for RFPs do not apply to the gas utilities, only the electric utilities. Gas utility RFPs, then, are not burdened by an independent evaluator, comment requirements, etc. that the electric utilities must comply with.

March 14, 2025 9:54 AM from Jessica Reichers to everyone: Thank you for the additional resources and information, Carra!

March 14, 2025 10:56 AM from Dave Vant Hof to everyone: Out of the box, but Hawaii is going to a mandatory time of use program for all users this year. Oregon IOUs should be moving more aggressively in that direction as well as develop programs to encourage it. For instance, a program where IOUs finance, own and install batteries at residences and commercial facilities that have solar to provide electricity to the grid during peak time

March 14, 2025 10:57 AM from BPS, Pam Neild she/her to everyone: Your question is out of my experience. I can follow up later once I speak to others on my team.

March 14, 2025 11:01 AM from Jessica Reichers to everyone: Thanks, Pam!

March 14, 2025 11:34 AM from BPS, Pam Neild she/her to everyone: Thank you everyone. I need to leave early today.

March 14, 2025 11:34 AM from Jessica Reichers to everyone: Thanks, Pam! Feel better!

March 14, 2025 11:43 AM from Carra Sahler to everyone: Thanks, Devon! I wrote that. I think gas utilities are well-liked by customers and could really provide value there.

March 14, 2025 11:46 AM from Carra Sahler to everyone: Brittany--I encourage NWN to offer a public webinar about the TENS project. It's been hard to get information about it and doesn't seem to be front and center in the IRP meetings. It would be great to know more.

March 14, 2025 11:47 AM from Carra Sahler to everyone: Like the Climate Protection Program!

March 14, 2025 11:51 AM from Carra Sahler to everyone: Just wanted to highlight that a targeted electrification program, modeled after an LEA, could also be a successful method for gas utilities to decarbonize while remaining financially successful. Testimony in Avista's rate case, filed last week, highlights so many gas utilities around the country exploring innovative solutions.

March 14, 2025 11:52 AM from Brittany Park -NW Natural to everyone:Hi Carra - That is great feedback - we need to get the word out! I will pass that on to our TENS project manager and make sure we get that information to you.

March 14, 2025 11:59 AM from Antonio Machado to everyone:I have a hard stop at 12 PM, but I truly appreciate the insightful discussions. Thank you for your valuable perspectives and comments!

March 14, 2025 11:59 AM from Jessica Reichers to everyone: Thanks, Antonio!

March 14, 2025 12:00 PM from Carra Sahler to everyone: Yes, exactly. Instead of investing in fossil fuel infrastructure, let's invest in "nonpipeline alternatives"

March 14, 2025 12:03 PM from Tim Miller to everyone:Great discussion and facilitation. Thanks all! Gotta go.

### Miro Whiteboard

*Below is a transcription of the feedback received in the 3/14/25 Miro Whiteboarding activity. The whiteboard is also available for review at: [Low Carbon Fuels 3-14 - Miro](#)*

### Whiteboard Exercise 1

<b>Low Carbon Fuel Development: Production and Distribution</b>	
<p><b>Build on/Adjust/Improve Existing Policy</b></p> <ul style="list-style-type: none"> <li>• Consider ways to reform current permitting and siting for fuels/fuel production facilities to get beyond nimbyism and to better weight the need for a clean energy transition.</li> <li>• In order to improve a low carbon fuel transition there has to be a permitting process by which it will allow producers to grow their capabilities, but constraining their ability to do so will just delay any transition plans.</li> <li>• State carbon emission policy are too narrow/ prescriptive - focus on prescribing how to decarbonize vs goal based or performance based (this doesn't allow innovation or a sink for market changes)</li> <li>• Trying to replicate California in Oregon may not be a good approach, mainly because of infrastructure and just</li> </ul>	<p><b>New Policy Needed</b></p> <ul style="list-style-type: none"> <li>• if demand drives production of biomethane (as opposed to just capturing biomethane already being produced) we must ensure communities are not impacted by water and air quality effects</li> <li>• These fuels should be reserved for the hardest to decarbonize industries; we cannot be heating homes with expensive, valuable fuels when alternatives exist</li> <li>• Regionally-structured incentives to recognize the higher miles traveled and fuel uses in rural Oreogn.</li> <li>• Infrastructure and other fuel distribution incentives especially in rural Oregon to address low economies of scale and to spur needed investments.</li> </ul>

<p>population size. CA may be able to pivot and be more flexible given its large production capability while Oregon does not have in house liquid fuels production.</p> <ul style="list-style-type: none"> <li>• Consider gathering diverse stakeholders to agree on where renewable diesel facilities should be located</li> <li>• Clarification around if utilities should still be utilizing SB 98 for biogas procurement or focusing on the CPP exclusively</li> <li>• Providing supportive policies with Regulatory recovery (predictability/accountability is key!)</li> <li>• Update Oregon RFS to increase RD/BD supply to the State</li> </ul>	
<p><b><i>What do we need to better understand?</i></b></p> <ul style="list-style-type: none"> <li>• We need to ensure we are not driving increased emissions by financially incentivizing the production of biomethane</li> <li>• We need to ensure we are not impacting water, air, and other natural resources by driving production of biomethane</li> <li>• State policies to accelerate in state production of SAF and its use at PDX</li> <li>• public concern about carbon intensity of biofuels (swapping food for fuel feedstock)</li> <li>• Monitor City of Portland RFS update and implementation</li> </ul>	<p><b><i>Other</i></b></p> <ul style="list-style-type: none"> <li>• Incentivize in state production of low carbon fuels</li> <li>• Clear Guidelines around prudency determinations will encourage investment</li> <li>• Timelines for clean electricity generation and transmission upgrades</li> <li>• Cost Constraints in policies enabling and encouraging low carbon fuel utilization should reflect the market.</li> <li>• Incentivize in state production of low carbon fuels; have state policy to support fleets to use in state produced low carbon fuels</li> <li>• Because we don't know which end uses are hardest to electrify, OR should provide equal transport and stationary incentives for renewable natural gas use</li> <li>• Providing funding, tax credits (PTC, ITC), or pilots that allows the industry to innovate</li> <li>• State carbon emission policy are too narrow/ prescriptive - focus on prescribing how to decarbonize vs goal based or performance based (this doesn't allow innovation or a sink for market changes)</li> </ul>

## Whiteboard Exercise 2

### ***Low Carbon Fuel Development: Feedstocks***

<p><b><i>Build on/Adjust/Improve Existing Policy</i></b></p> <ul style="list-style-type: none"> <li>• Cost Constraints in policies enabling and encouraging low carbon fuel utilization should reflect the market.</li> <li>• Feedstocks are used at the facilities that produce the finished products and follow a market based behavior.</li> <li>• Have Oregon's Clean Fuels Program require lower CI feedstocks to qualify for incentives - similar to what Portland RFS has done</li> <li>• Lowering the carbon intensity (CI) of fuels, aside from diesel, is highly challenging. Gasoline, in particular, cannot be further reduced in CI. Imposing restrictions on available feedstocks will increase production costs and hinder any</li> </ul>	<p><b><i>New Policy Needed</i></b></p> <ul style="list-style-type: none"> <li>• Providing supportive policies with Regulatory recovery (predictability/accountability is key!)</li> <li>• Innovation funding</li> <li>• Support for coops of feedstock producers to find scale and reduce costs / share infrastructure (production, transporting materials, etc.)</li> </ul>
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<p>transition efforts. While Portland is a relatively small market, widespread implementation of such measures could significantly alter market dynamics, potentially making the transition unfeasible.</p> <ul style="list-style-type: none"> <li>• Providing supportive policies with Regulatory recovery (predictability/accountability is key!)</li> </ul>	
<p><b>What do we need to better understand?</b></p> <ul style="list-style-type: none"> <li>• <b>No items</b></li> </ul>	<p><b>Other</b></p> <ul style="list-style-type: none"> <li>• <b>No items</b></li> </ul>

### Whiteboard Exercise 3

#### **Low Carbon Fuel Development: Innovation**

<p><b>Build on/Adjust/Improve Existing Policy</b></p> <ul style="list-style-type: none"> <li>• Improve permitting processes as they can enhance the development of LC projects by reducing delays, promoting investments, expanding feedstock utilization. Improved permitting can remove barriers to scaling production but it is seen as a detrimental move, unfortunately.</li> <li>• existing policy at the PUC protects IOUs from investing in infrastructure that is not the least cost/least risk method of providing energy and meeting climate policy</li> <li>• work with other states that regulate LC fuels that have an effect on OR.</li> <li>• ENSURE the CPP remains strong, spurring innovation across fuels and other energy resources</li> <li>• Agree with CPP statement. Policies need to stay in place and remain in order for the market to have time to shift.</li> </ul>	<p><b>New Policy Needed</b></p> <ul style="list-style-type: none"> <li>• To ensure low carbon fuels are directed to the most useful places, we need to ensure that fuel switching permits customers to choose the least cost/least risk energy</li> <li>• Innovation funding (example Minnesota's Natural Gas Innovation Act)</li> <li>• investor-owned utilities cannot own the infrastructure because it imposes an additional ROE burden on ratepayers</li> <li>• investments in fossil fuel related infrastructure need to be carefully considered to evaluate the stranded asset risk</li> <li>• Funds/incentives/tax credits for pilot implementation of hydrogen or electrification of 'hard to electrify' industrial uses</li> </ul>
<p><b>What do we need to better understand?</b></p> <ul style="list-style-type: none"> <li>• Evaluate low carbon fuels in the context of GHG emissions reductions, not just because there is a market for them</li> </ul>	<p><b>Other</b></p> <ul style="list-style-type: none"> <li>• Direct public fleets to prioritize use of low carbon fuels produced in state</li> </ul>

### Whiteboard Exercise 4

#### **Need for Fuel Resources to Support the Electric Grid: Demand side resources to provide electricity reliability**

<p><b>Build on/Adjust/Improve Existing Policy</b></p> <ul style="list-style-type: none"> <li>• Really strong incentives for customers, and for installation of technologies -- not just what outdated 'cost effectiveness' metrics would enable. Need to FULLY value the benefit of DRs -- and early incentives even bigger to drive early parts of the adoption curve, and installation and product markets.</li> <li>• Utilize dual system planning</li> </ul>	<p><b>New Policy Needed</b></p> <ul style="list-style-type: none"> <li>• State getting more coherently involved to get Oregon connected in broader energy markets -- grid balancing across states. (Rise above current utility/BPA/other inconsistencies.)</li> </ul>
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<ul style="list-style-type: none"> <li>• funding and technical solutions for integrating Geothermal, TENS, and energy efficiency</li> </ul>	
<p><b><i>What do we need to better understand?</i></b></p> <ul style="list-style-type: none"> <li>• Need to FULLY understand the cost of keeping peaker plants (whether new tech, or old tech) available 24x365 -- with ALL the costs, and make that full cost the value of marginal energy -- and then build that value back into DRs, storage, and other alternatives -- and then need to double or triple that value in incentives for early stages of adoption of other technologies.</li> <li>• identification of value for built out infrastructure for solutions can provide peaking resources.</li> <li>• dual fuel residential solutions can provide peaking resources. Identification of value for negating need for new Peaker plants. (ie. Replace with home dual fuel systems.)</li> <li>• That full cost would include all staffing and maintenance and safety and hardware costs, from the big stuff, right down to ridiculously small 24x365 costs like roads and access and security at these plants.</li> </ul>	<p><b><i>Other</i></b></p> <ul style="list-style-type: none"> <li>• <b><i>No items</i></b></li> </ul>

### Whiteboard Exercise 5

<p><b><i>Electrification: Hard to electrify end uses and helping to inform investment decisions</i></b></p>	
<p><b><i>Build on/Adjust/Improve Existing Policy</i></b></p> <ul style="list-style-type: none"> <li>• Develop near term (not 2050) transportation decarb goals. Goal should include a date after which ICE vehicles (and which categories) cannot be sold.</li> <li>• As noted above, keep CPP strong, incentive new technologies, fund pilots of electrification technologies, and look at utility (gas/electric) business models and consider how regulatory framework needs to change to help utilities fully embrace being part of the solution.</li> </ul>	<p><b><i>New Policy Needed</i></b></p> <ul style="list-style-type: none"> <li>• Develop legislative goals around low carbon fuel opportunities along the lines of what already has been done for EVs and heat pumps. Such as battery storage etc.</li> <li>• Road Usage Charge: i.e. weight + efficiency = per mile fee.</li> <li>• Consider support for industrial centers/parks where new fuels can be efficiently distributed -- and where industrial heat and other resources can be efficiently shared / deployed. (Industrial symbiosis.)</li> </ul>
<p><b><i>What do we need to better understand?</i></b></p> <ul style="list-style-type: none"> <li>• workplace EV charging programs bc. it provides charging for those who do not have home charging for example in hard to install infrastructure in mulitfamily buildings</li> <li>• Gap Analysis: Expand level 1 charging. This is the easiest and cheapest way to provide ubiquitous charging to provide resources for hard to decarb sectors.</li> </ul>	<p><b><i>Other</i></b></p> <ul style="list-style-type: none"> <li>•</li> </ul>

Whiteboard Exercise 6

<b>Fuel Demand Declines: Decommissioning or repurposing existing infrastructure across the supply chain</b>	
<p style="text-align: center;"><b><i>Build on/Adjust/Improve Existing Policy</i></b></p> <ul style="list-style-type: none"> <li>• gas utility pilot projects for TENS</li> <li>• gas utility engagement in voluntary targeted electrification; revenue akin to LEAs</li> <li>• careful evaluation of planned fossil fuel infrastructure to ensure no stranded asset risk</li> </ul>	<p style="text-align: center;"><b><i>New Policy Needed</i></b></p> <ul style="list-style-type: none"> <li>• funding and technical solutions for integrating Geothermal, TENS, and energy efficiency</li> <li>• Consider policies needed for neighborhood-/community-scale electrification -- where percentages of fuel use (i.e. NG) decline to low levels and the most prudent thing to do is to 'prune' that part of the gas grid. Need to fund wholesale electrification in those cases. ...and ideally figure out the significant business model changes needed so that nat gas utilities see these opportunities and help make them happen.</li> <li>• Providing funding and tax credits</li> <li>• incentives for adoption</li> </ul>
<p style="text-align: center;"><b><i>What do we need to better understand?</i></b></p> <ul style="list-style-type: none"> <li>• thoughtfulness around gasoline providers; often small businesses</li> <li>• Consider how those most affected by policies are often those who cannot afford newer, more advanced technologies. During transitions, inexpensive and reliable fuels play a crucial role in supporting those who are less fortunate. This factor must be carefully considered in policymaking.</li> </ul>	<p style="text-align: center;"><b><i>Other</i></b></p> <ul style="list-style-type: none"> <li>•</li> </ul>